Essays on Descartes

PAUL HOFFMAN

Essays on Descartes

This page intentionally left blank

Essays on Descartes

Paul Hoffman

OXFORD
UNIVERSITY PRESS
2009

OXFORD
UNIVERSITY PRESS

Oxford University Press, Inc., publishes works that further
Oxford University's objective of excellence
in research, scholarship, and education.

Oxford New York
Auckland Cape Town Dar es Salaam Hong Kong Karachi
Kuala Lumpur Madrid Melbourne Mexico City Nairobi
New Delhi Shanghai Taipei Toronto

With offices in
Argentina Austria Brazil Chile Czech Republic France Greece
Guatemala Hungary Italy Japan Poland Portugal Singapore
South Korea Switzerland Thailand Turkey Ukraine Vietnam

Published by Oxford University Press, Inc.
198 Madison Avenue, New York, New York 10016

www.oup.com

Oxford is a registered trademark of Oxford University Press

Library of Congress Cataloging-in-Publication Data
Hoffman, Paul.
Essays on Descartes / Paul Hoffman.
p. cm.
ISBN 978-0-19-532110-4
1. Descartes, René, 1596–1650. I. Title.
B1875.H44 2009
194—dc22 2008012839

9 8 7 6 5 4 3 2 1
Printed in the United States of America
on acid-free paper

Acknowledgments

I have been inspired, encouraged, and helped by many people. Although I was interested in philosophy from my first course at Brown University, I did not find any sort of stride until my junior year at the University of Michigan when we discussed Spinoza in Allen Wood's history of modern philosophy course. Mark Kulstad was the teaching assistant. I was very fortunate to take Jaegwon Kim's class on the philosophy of mind my senior year. That course above all inspired me to pursue a career in philosophy. Lee Bowie encouraged me to go to the University of California, Los Angeles (UCLA), by telling me that if he had not gone to California for graduate school he never would have taken up skydiving. Not being that adventurous, I did take up ocean swimming. I had hoped also to take up surfing, but that got postponed until I moved back to California at age forty to teach at University of California, Riverside. The three proseminars for first-year students at UCLA, taught my year by Thomas Hill Jr., Keith Donnellan, and Robert M. Yost, had a profound influence on my development. Yost planted the idea of my working on Descartes. Marilyn Adams got me interested in medieval philosophy, and her work, especially on composite unities, played a big role in shaping my own work. Robert Adams was a superb dissertation chair. I am grateful for the standards of scholarship he set with his own work, for his patience with me as a student, for his conscientious and always deeply insightful comments, and for his continuing support and helpful advice throughout my career. Rogers Albritton played an active role as a member of my dissertation committee. I had the impression that he understood my project better than I did and was always several steps ahead me. He was generous in discussing various passages at great length and thereby teaching me how to read a philosophical text.

While a graduate student I benefited greatly from reading Margaret Wilson's book on Descartes, and I am also grateful that, even though she was far away at Princeton and had not yet met me, in response to an inquiry from Robert Adams she gave her approval to my dissertation project. Ed McCann was a wonderful presence as

a visitor at UCLA. An offhand remark by Josh Cohen when he was visiting UCLA provided the inspiration for "The Unity of Descartes's Man."

Having completed graduate school, it was my great privilege to serve as John Carriero's dissertation supervisor. He was really the teacher and I the student. I have continued to learn from our philosophical conversations and friendship for twenty-five years. Ken Winkler has also been a trusted friend and advisor. I have many intellectual and personal debts to Jennifer Whiting, my colleague at Harvard University, especially for the significant role she played in my getting a postdoctoral fellowship at Cornell University. At Cornell, Norman Kretzmann, who once referred to himself as my philosophical grandfather, was delightful. His course on Aquinas was inspiring, and his weekly Latin sight-reading sessions, a tradition I have continued since leaving Cornell, helped put my Latin on firmer footing. Carl Ginet, Sydney Shoemaker, Terry Irwin, and Gail Fine were also influential.

My understanding of Descartes has been sharpened considerably by responding to the views of my primary opponents in interpreting him—Vere Chappell, Marleen Rozemond, and Larry Nolan—all of whom I feel honored to count as friends. My student Chris Gilbert also developed a challenging alternative interpretation of Descartes's account of the will.

Janet Broughton and Calvin Normore have been important role models and sources of encouragement over the years. Daniel Garber had a significant influence on the direction of my research by suggesting that I work on Descartes's account of the passions. Various discussion groups have been helpful—the early meetings of what became the New England Colloquium (whose founding is due largely to Stephen Voss), the California Workshop (to make up a name), and Alan Nelson's Cartesian Circle. I am also grateful to Alan for inviting me to serve on the committees of several of his students writing dissertations on Descartes.

I would also like to thank my colleagues at the University of California, Riverside. It has been a very happy home for me for the past fifteen years. It's a blessing to be part of such a congenial department where the history of philosophy is taken seriously as philosophy.

On a personal level I owe a tremendous debt to my late parents, especially to my mother, who never had the chance to go to college herself but had a deep love of learning. She always encouraged my academic pursuits and supported them and my family financially well into my years as a professor. My undergraduate friend at the University of Michigan, Susan Williams, now professor and director of the Bodega Marine Laboratory at the University of California, Davis, encouraged me by both word and example to take academic risks and to keep other nonacademic interests alive. The death of our beloved sister Carol while I was in graduate school deepened both my brother Jack's and my own sense of obligation to do something worthwhile.

All but one of these essays were written during the nearly twenty-five years that my wife Brooks and I were together. I opted enthusiastically for the daddy track, and together we raised two lovely and very philosophically minded daughters, Eva and Elaine, to whom this collection is dedicated.

Permissions

The following works are used with the permission of the publishers listed here.

Contents

This page intentionally left blank

Abbreviations of Editions of Descartes's Works

A translation is my own if it differs from the English source cited and is not attributed to someone else.

A	*Oeuvres philosophiques de Descartes*, vols. I–III, ed. Ferdinand Alquié (Paris: Garnier Frères, 1963, 1967, 1973).
AT	*Oeuvres de Descartes*, vols. I–XI and supp., ed. Charles Adam and Paul Tannery (Paris: Leopold Cerf, 1897–1913).
CSM	*The Philosophical Writings of Descartes*, vols. Iand II trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1985).
CSMK	*The Philosophical Writings of Descartes*, vol. III trans. John Cottingham, Robert Stoothoff, Dugald Murdoch, and Anthony Kenny (Cambridge: Cambridge University Press, 1991).
H	*Treatise of Man*, French text with translation and commentary by Thomas Steele Hall (Cambridge, Mass.: Harvard University Press, 1972).
HR	*The Philosophical Works of Descartes*, vols. I and II, trans. Elizabeth S. Haldane and G. R. T. Ross (Cambridge: Cambridge University Press, 1911–12 and 1931).
M	*Le Monde, ou Traité de la lumière*, trans. Michael Sean Mahoney (New York: Abaris, 1979).
MM	*Principles of Philosophy*, trans.Valentine Rodger Miller and Reese P. Miller (Boston: D. Reidel, 1983).
V	*The Passions of the Soul*, trans. Stephen Voss (Indianapolis: Hackett, 1989).

This page intentionally left blank

Essays on Descartes

This page intentionally left blank

Introduction

When I began my serious study of Descartes after deciding to write a dissertation under the supervision of Robert Adams on Descartes's concept of matter, I did not, I believe, approach the text with any particular interpretative claims in mind. I took it as a sufficient goal just to try to figure out what Descartes was saying. As my work progressed, I fell into the camp of those scholars, mainly French, who had found it illuminating to try to understand Descartes in light of his scholastic-Aristotelian heritage. I noticed that he was saying various things that, given his revolutionary aims, sounded surprisingly Aristotelian, things that English-speaking commentators tended to ignore and many French-speaking commentators tended to dismiss as not being fully sincere. Having adopted the interpretive principle of taking Descartes at his word unless there was compelling reason not to, I found myself trying to answer the question: are there sufficient reasons for denying that Descartes meant these things in the way his Aristotelian predecessors did?

Given my own philosophical interests, most of my work shifted away from direct focus on Descartes's concept of matter to focus instead on what used to be called his anthropology, that is, his account of the nature and functioning of human beings. I have tried to make sense of what Descartes means in asserting that mind (or soul) and body are really distinct substances, of his account of the human being understood as a composite of mind and body, his account of the causal interaction between mind and body, his account of human cognition, and his account of the passions of the soul and human freedom.

A thesis that serves as a unifying theme for many of the essays included in this collection is this: Descartes retains three fundamental Aristotelian doctrines, though in modified form, that play a crucial role in his metaphysics and epistemology. The first doctrine is familiar to most contemporary philosophers, but it remains controversial to attribute it to Descartes. This is the doctrine of hylomorphism: that mind and body are related as form to matter and that the composite of mind and body, the human being, is itself a substance. The second doctrine is

largely unknown to contemporary philosophers. This is the doctrine of the identity of action and passion: whenever a causal agent acts on something (referred to as the patient), what the agent does (the action), and what the patient undergoes (the passion) are one and the same. Aristotle illustrates this doctrine with the example of a teacher's teaching, which he says is one and the same as the student's learning. My contention is that Descartes's endorsement of this doctrine requires us to reinterpret his dualism and that it also sheds important light on his physics. The third doctrine again is not one often associated with Descartes or one that contemporary philosophers consider a live option. We might call this the incorporation doctrine: in order for us to perceive something, that very thing must exist in the soul, but the manner of existence it has in the soul is different from the manner of existence it has in the world.

Aristotelian hylomorphism is often thought to be a superior theory to Cartesian dualism and sometimes thought to be more in tune with contemporary philosophical sensibilities as well. In arguing that Cartesian dualism can be reconciled with hylomorphism, I do see myself as showing that Descartes has a more attractive account of human beings than he does according to the standard interpretation. Nevertheless, since I am sympathetic neither to the view that the mind is an immaterial substance nor to the view that I think is entailed by hylomorphism, that substances have immaterial principles in addition to their material constituents, I am not in the end sympathetic to either dualism or hylomorphism. But I do think Descartes has been unfairly caricatured by many philosophers as a villain who sent us down the dead-end road of mind-body dualism. The mind-body problem is a deep, intractable problem that Descartes inherited and did not invent. In spite of my lack of sympathy to either substance dualism or property dualism, I am only slightly more sympathetic to materialism, and I think Descartes's discussions of these issues remain illuminating and important.

I have become much more sympathetic to the other two Aristotelian doctrines that I attribute to Descartes. I am now inclined to think that the Aristotelian model of causation according to which the action of the agent is identified with the passion undergone by the patient is at least as plausible as the more familiar Humean model, and I hope that this collection will help give it the prominence it deserves. I also think that the Aristotelian model of cognition deserves to be considered a live option. Indeed, I am tempted by the thought that our best hope for explaining the possibility of our coming into cognitive contact with things external to us is to return to the Aristotelian view that things we perceive or know come to have another kind of being in us.

Before I turn to synopses of the individual essays, three other of my main interpretive claims merit highlighting. First, the key to reconciling Cartesian dualism with hylomorphism is to recognize that Descartes's concept of substance is considerably weaker than that of his Aristotelian predecessors. Second, there are at least five different notions of being separable, and the two that figure in Descartes's

claim that mind and body can exist separately from each other are weaker than the one standardly attributed to him. Third, Descartes thinks we can rewire, as it were, the connections between mind and body and that this is the principal method that guarantees that all of us are able to control our passions and maintain our freedom of will.

I have grouped my essays under the following headings: hylomorphism and the theory of distinction (part I), causation (part II), cognition (part III), and moral psychology (part IV). (I have made very few alterations to the original essays beyond helpful stylistic suggestions by the copyeditor, Martha Ramsey, but there are several alterations to the notes. I have tried in the notes to indicate how my views have changed on some issues.)

1. Part I: Hylomorphism and the Theory of Distinction

In six of the essays, I explore issues connected to Descartes's hylomorphism and mind-body dualism. In "The Unity of Descartes's Man" (chapter 1), I maintain that in spite of arguing for a real distinction between mind and body (dualism), Descartes wants to retain the Aristotelian view that mind is related to body as form to matter (hylomorphism), so that the human being resulting from their union is itself a substance. I then try to show how he can reconcile these two views of the relation between mind and body—dualism and hylomorphism—that have been thought to be incompatible. My analysis of Descartes's position includes an account of how he can conceive of mind as a substantial form in spite of conceiving it as substance. It also includes a comparison of his account of how something composed of form and matter can still have the sort of unity essential to substance with the accounts of some of his prominent scholastic predecessors, in particular, those of Thomas Aquinas, Duns Scotus, and Ockham. The key point to notice—what had before been overlooked—is that Descartes's conception of substance (at least that conception of substance at stake in his claim that mind and body are really distinct substances) is considerably weaker than the Aristotelian conception of substance. Unlike his Aristotelian predecessors, Descartes does not require of substance that it never exist in a subject. He thinks that anything that *can* exist apart from a subject has sufficient independence to be considered as substance. Since his conception of substance is weaker in this way, he is able plausibly to maintain, as his Aristotelian predecessors could not, that a being with really distinct substances as constituents can itself be a substance. One problem left unresolved in this essay is that Descartes appears to contradict himself when he asserts both that a human is an *ens per se* (i.e. has genuine unity) and that it is an *ens per accidens* (i.e. does not have genuine unity).

In "Cartesian Composites" (chapter 2), I return to this unresolved problem. By making a comparison with his account of true and immutable natures, where he also seems to contradict himself in asserting that a triangle inscribed in a square both does and does not have a true and immutable nature, I show that Descartes

does provide a way of reconciling these apparently contradictory assertions. I also defend my claim that Descartes thinks a human being is an *ens per se* in a robust sense against objections raised by Marleen Rozemond and Vere Chappell. My most important contention in defense of this interpretation is that when Descartes asserts that a mind is a substance he means it only in the weak sense that it can subsist apart from a subject. Therefore, the mind is no more robust than other parts of human being, such as a hand or arm, which he also considers to be substances because they do not exist in a subject. This opens the way for him to maintain that the mind is both a substance in its own right and a constituent of another substance, the composite human being. In this respect his views about the ontological status of the mind are in fact quite similar to those of Aquinas, who says of the human soul and of a hand that they subsist *per se* in the sense of subsisting apart from a subject.

In "Descartes's Theory of Distinction" (chapter 3), I provide an analysis of Descartes's three kinds of distinction: real distinction, modal distinction, and distinction of reason. Descartes holds that any things A and B are really distinct when each of them can be clearly and distinctly conceived separately from the other, that they are modally distinct when exactly one of them can be clearly and distinctly conceived separately from the other, and that they are distinct by reason when neither can be clearly and distinctly conceived separately from the other. This much is uncontroversial. One difficult question is whether Descartes believes that things distinct by reason (which include a substance and its principal attribute and also various attributes of a substance that cannot be clearly and distinctly conceived separately) are identical in reality. I argue, against a forceful case for the identity interpretation made by Lawrence Nolan, that in most instances when Descartes asserts that things are distinct by reason he means only that they are inseparable in reality, not that they are identical in reality. Another crucial issue of interpretation I take up that I hope will reorient discussion of his theory is the issue of what he means when he speaks of one thing being able to exist separately from another thing. There seems to be a widespread assumption that Descartes maintains that for one thing to be able to exist separately from another is for it to be able to exist without the other thing existing. However, I distinguish five different notions of separate existence, and I argue that the two notions relevant to the real distinction between mind and body are much weaker than on the standard interpretation. This understanding of Cartesian dualism as relying on weaker notions of separability provides additional support for my claim that Descartes believes that mind and body can be united to form an entity that is itself a substance.

In "Descartes's Watch Analogy" (chapter 4), I respond to a particular criticism of the hylomorphic interpretation that I had argued for in part by noting that in a letter to Mesland Descartes asserts that the human body is numerically the same so long as it is united to the same soul. Robert Pasnau and Marleen Rozemond appeal to the watch analogy in article 6 of *The Passions of the Soul* as providing decisive evidence against the hylomorphic interpretation. In that article, Descartes

compares the difference between a living body and dead body to that between a working watch and that same watch after it has been broken. This analogy reinforces his point that the soul is not the principle of life, and Pasnau and Rozemond take it to show that the identity of the human body does not depend on its being united to the soul. In response, I argue first that it is not inconsistent with a hylomorphic conception of the relation of soul to body to deny that the soul is the principle of life. Second, I argue that there are various ways fully consistent with the hylomorphic interpretation to explain the relation between this passage and the passage from the letter to Mesland.

In "The Union and Interaction of Mind and Body (Part 1)" (chapter 5), I review the textual evidence in favor of the hylomorphic interpretation, and I argue that Descartes has no fundamental commitments that are incompatible with hylomorphism. I respond to what I take to be the four leading objections to the hylomorphic interpretation. In responding to one of those objections, I give up my earlier claim, which had been based on my retranslation of a passage in a letter to Regius, that the soul is united to the body by its very nature, and instead emphasize his suggestion in the *Letter to Father Dinet* that the soul has a natural aptitude to be united to the body. Also, against an objection by Vere Chappell, I defend my interpretation of the passage from the *Comments on a Certain Broadsheet* in which Descartes allows that even a simple subject can have more than principal attribute, provided that those attributes cannot be conceived independently.

In "Descartes and Aquinas on *Per Se* Subsistence and the Union of Soul and Body" (chapter 6), I explain that Descartes and Aquinas think that the human soul subsists *per se* in roughly the same sense. It can exist without existing in a substance, and it has an operation, thinking or understanding, that it can perform on its own apart from the body. John Carriero has argued that in spite of this similarity, there is an important difference between them because Aquinas holds that the human soul is not capable of knowing in a natural and optimal way when separated from the body, whereas Descartes thinks that it is. One might argue that this difference shows that Aquinas can, but Descartes cannot, plausibly maintain that the composite of soul and body is a substance. I respond to this line of thought by arguing that Descartes can claim that the human being is a substance so long as the soul has a natural aptitude to be united to the body and that it has a natural aptitude to be united to the body so long as some of modes of thought require it, even if pure understanding does not. Since Descartes considers sensations, appetites, emotions, and acts of the imagination to be modes of thought that are possible only due to the mind's union with the body, he can legitimately claim that the soul has a natural aptitude to be united to the body and thus that the composite human being is a substance. His Aristotelian predecessors, however, would not be convinced by such an argument because they did not consider sensations, appetites, emotions, and acts of the imagination to be modes of thought. But there was another approach available to Descartes if he wanted to convince his scholastic opponents that the Cartesian

mind does have a natural aptitude to be united to the body, in the sense that is fitting or appropriate for it to be united to the body.

2. Part II: Causation

Aristotle and his followers held that when an agent brings about a change, the agent's action is one and the same change as the passion in the subject undergoing the change. So Aristotle said that the teacher's teaching is one and the same change as the student's learning and is located in the student.

In "The Union and Interaction of Mind and Body (Part 2)" (chapter 7), I provide a brief introduction to this Aristotelian model of causation by contrasting it with the Humean model. I discuss Descartes's application of the Aristotelian model to the interaction of mind and body in *The Passions of the Soul*, and I make note of the largely overlooked point that Descartes thinks that connections between a type of action and a type of passion forged by nature, that is, by God, can be rewired by habituation. In addition to arguing for the historical irony of some of the objections widely thought to be devastating to Descartes—it seems to be a common misconception in popular culture that Descartes thought the mind cannot influence the body at all and among philosophers that the Aristotelians had a far better account of our ability to move our bodies—I also claim that we still do not have philosophically superior explanations of human agency or of how events in the brain result in such phenomena as sensations, appetites, and emotions.

In "Cartesian Passions and Cartesian Dualism" (chapter 8), I argue more fully that Descartes retains the Aristotelian doctrine of the identity of action and passion but in so doing makes an important modification in it. Unlike his Aristotelian predecessors, who located the agent's action in the patient, Descartes locates the agent's action in the agent. I examine his motives for modifying but not abandoning this doctrine. My primary concern in this essay is to explore the implications of Descartes's use of the doctrine for his dualism. I argue that his use of the doctrine implies that he thinks there are modes that straddle mind and body. When the body acts on the mind, the action existing in the body is the same mode as the passion existing in the mind; and when the mind acts on the body, the action existing in the mind is the same mode as the passion existing in the body. Thus, contrary to the standard picture of Cartesian dualism, Descartes holds that some modes belong to both mind and body. For example, each of our sensations, appetites, and emotions, which are passions existing in the mind, is the same mode as an action existing in the body. In an important respect, Descartes thereby retains the traditional Aristotelian view that the being of such states is intermediate between the corporeal and the incorporeal.

In "Passion and Motion in the New Mechanics" (chapter 9), I argue that the doctrine of the identity of action and passion is also fundamental to understanding Descartes's account of uniform rectilinear motion. Alexandre Koyré argued that

Descartes's reconceptualization of motion as a state, rather than a change as the Aristotelians understood it, paved the way for both his and Newton's laws of inertia because a change requires a force but continuing in the same state does not. I maintain, on the contrary, that the question of whether uniform motion is thought to require an efficient cause does not turn on the question of whether it is viewed as a state or a change. Instead, the more revealing question is whether uniform motion is viewed as a *passion*. Descartes thought of uniform motion as a passion and, because he retained the Aristotelian doctrine of the identity of action and passion, concluded that motion requires a corresponding action at each moment, not just in God but in body, so that a projectile is acting on itself so long as it continues to move. Newton did not think of uniform rectilinear motion as a passion. He regarded only changes of motion as passions, and so he required active forces only for them. Newton did require a force for uniform motion, but it was a force of inactivity.

3. Part III: Cognition

According to the Aristotelian theory of cognition, when we sense a thing or know a thing, that very thing exists in the soul, but the kind of being or reality it has in the soul is different from the kind of being or reality it has in the world. Descartes's rejection of Aristotelian hylomorphism (as an adequate account of substances other than human beings) is commonly thought to entail the rejection of the Aristotelian theory of cognition, for it is held that only forms could have two kinds of being, one in the soul and one in the world. However, I believe—along with such commentators as Lilli Alanen, Calvin Normore, and Stephen Nadler—that Descartes's account of the objective reality of ideas shows that he retains the most basic elements of the Aristotelian theory of cognition.

A second related issue concerning Descartes's account of cognition is whether he is a representationalist or a direct realist. The standard interpretation of Descartes is that he is a representationalist, holding that we are directly aware only of ideas existing in our thought that represent objects in the world. However, since Aristotelians are commonly considered to be direct realists—holding that the immediate objects of sense and knowledge are things existing in the world—interpreters such as Nadler and Alanen, who see Descartes as retaining the basic elements of the Aristotelian theory of cognition, argue that this shows that Descartes, too, is a direct realist. I do not agree that Descartes's allegiance to Aristotelian ways of thinking about cognition indicates that he is a direct realist, because I do not believe that the Aristotelian theory itself is in fact a direct realist theory. Rather, it is my contention that the Cartesian-Aristotelian theory of cognition is in fact representationalist because according to that theory we are only indirectly aware of things as they exist in the world in virtue of being directly aware of them as they exist in thought.

In "Descartes on Misrepresentation" (chapter 10), I examine Descartes's theory of cognition, taking as a starting point his account of how misperception is possible. In

the *Third Meditation*, he introduces the hypothesis that there are ideas (such as the idea of cold) that seem to be of something real but in fact represent nothing (if, for example, cold is a privation or absence of heat, rather than the presence of a positive quality). I argue, against Margaret Wilson, that Descartes does not think there are any such ideas and that he introduces the hypothesis only in order to formulate an objection to his argument for the existence of God. I argue further that while he agrees with Arnauld in accepting the Aristotelian account of cognition, according to which the very objects in the world that we perceive exist in the soul or its ideas objectively, he still has a satisfactory response to Arnauld's objection that since an idea can represent only what it appears to be of, all error must reside solely in our judgment. I claim that Arnauld's objection that an idea represents what it appears to be of is based on the assumption that an idea appears to be of what exists in it objectively. But Descartes makes room for the possibility of misrepresentation by distinguishing between what exists objectively in an idea and what that idea appears to be of. An argument can be made that like some of his Aristotelian predecessors Descartes holds that in the case of confused ideas what exists in the soul objectively can appear to be other than it is. This interpretation has the implication that Descartes's theory of ideas, in contrast to sense datum theories, is not driven by the motive of finding some entity that is exactly as it appears to serve as the object of immediate awareness.

In "Direct Realism, Intentionality, and the Objective Being of Ideas" (chapter 11), I examine the distinction between representationalism and direct realism, focusing on Steven Nadler's argument for the view that Descartes and Arnauld are direct realists. I agree with several of Nadler's claims, including his view that ideas are acts of thought and that what Descartes refers to as the objective being of an idea is intrinsic to the idea and is directed to its object prior to our awareness of it. However, I do not think this entails direct realism. I argue that since Descartes and Arnauld are committed to the further claim that our attention is directed to an external object only in virtue of our awareness of the objective being of our ideas, they are representationalists.

4. Part IV: Moral Psychology

In his last published work, *The Passions of the Soul*, Descartes turns his attention to passive emotions such as joy, sadness, love, hate, hope, despair, boldness, anger, wonder, and desire. Investigations of the passive emotions or passions among seventeenth-century philosophers typically include three general areas of inquiry.

The first area concerns questions about the nature and origin of the passions: What is the distinction between a passion (something we undergo) and an action (something we do)? How are the passions distinguished from other states of mind, such as sensations (which are also thought to be passive and which also influence our behavior) and active emotions (for example, intellectual joy)? Are the passions

changes taking place in the mind, the body, or both? What is the nature of this change? What is the immediate cause of the passions? Are they caused, for example, by events in the body? What are their first causes? How is it that passions are directed toward an object? Is the object of a passion always the same as its first cause? Do passions belong to the will (or more generally to the appetitive faculty) or do they belong to the intellect (or more generally to the apprehensive faculty)? Are passions representational (that is, in addition to being directed toward an object, do they represent their object as being some way or other, for example, as being good)?

The second area of inquiry concerns questions about how the passions influence our behavior and how they affect our happiness, virtue, and freedom: Are the passions in themselves good or evil? Are they directed only toward things that are evil or sometimes toward things that are good? How do the passions influence us to behave in certain ways? Do they operate by influencing the will? Do they move the body directly? Are we acting freely if we follow their dictates? Can we be virtuous if we act in accordance with the passions, or does virtue require instead that our passions never influence our behavior? Do virtue and happiness require that the passions themselves be eliminated? Does our happiness depend more on our passions or our active emotions?

The third area of inquiry concerns questions about various methods of controlling the passions: Can we prevent our passions from influencing us to behave in ways that are bad for us? Can we ourselves determine which passions will be caused in us? Can we eliminate all of our passions? What would it be to have absolute power over the passions? Can any of these projects of self-mastery or self-determination be achieved through purely intellectual means? Can passions be controlled successfully by other passions?

In the excerpt from "Three Dualist Theories of the Passions" (chapter 12), an essay in which I discussed the views of Descartes, Spinoza and Leibniz, I take up some of these questions concerning Descartes's account of the nature and origin of the passions, their influence on our behavior, their relation to happiness, virtue, and freedom, and methods of controlling them. I examine his definition of the passions and show both how it differs from Aquinas's definition and how it undermines the traditional understanding of Cartesian dualism according to which all modes of thought are conceptually independent of extension. Furthermore, I argue that Descartes thinks the passions influence our behavior by representing objects as suitable or unsuitable to our nature. Finally, I discuss his various methods for controlling the passions and thereby maintaining our freedom, the most interesting of which is the suggestion that by a kind of behavior modification we can rewire the causal connections between mind and body and thereby control which passions will be produced in us.

In "Freedom and Strength of Will: Descartes and Albritton" (chapter 13), I compare Descartes's account of the relation between freedom of will and strength of

will with that of a modern-day defender of the Cartesian view that the will is so free in its nature that it cannot be constrained. Rogers Albritton argued on conceptual grounds that weakness of will is no barrier to freedom of will. Descartes, however, sometimes suggests that one must take certain practical steps to insure freedom of will. To understand this disagreement, I distinguish two different notions of strength of will. Our will is strong on the output side if we succeed in implementing our choices in the face of opposition. Our will is strong on the input side if we resist external forces in making choices. Descartes offers several different metaphors to explain the relation of the passions to a weak will, but he sometimes suggests that if our will is weak on the input side—that is, if our choices are incited by our present passions rather than our firm and decisive judgments concerning good and evil—and if we cannot control which passions we have, then we are not free, because what we propose to do is not really up to us. Albritton, I argue, holds the contrary view that the will is always indifferent—all the conditions for choosing X having been posited, we can either choose X or not—which implies that even a weak will is always free. A cost of this account of freedom, I claim, is that it cannot be explained why we choose one thing rather than another. Descartes's own account of free will is also objectionable, the primary objection being that it involves the identification of the self with reason.

In "The Passions and Freedom of Will" (chapter 14), I explain the sequence of steps that Descartes thinks is involved in a fully free human action: a clear and distinct idea of something as good or bad, a judgment that the thing is good or bad, a volition to pursue or to avoid that thing, a movement of the pineal gland, and a bodily movement. Then I consider at what points and in what way Descartes thinks the passions can intervene in the process by which we move our bodies. I argue that he thinks the passions themselves do not oppose our volitions to pursue or to avoid something. Only the movements of the brain that cause the passions can oppose these volitions. However, he does think the passions can intervene earlier in the sequence. Since the passions represent things as good or as bad, they can influence us to form these volitions, even in opposition to our judgments about what is good or bad (although not when our judgments are based on clear and distinct ideas). The passions can also influence our judgments about what is good or bad. Next, I try to answer the question of how such interventions affect our freedom. I argue on the basis of two important passages that Descartes thinks that the passions can diminish our freedom not only to the extent that they make our judgments regarding good and bad and our volitions to pursue or to avoid things less than fully free, but even to the extent that these judgments and volitions are rendered unfree. Finally, I explain how the passion of generosity plays a central role in securing our freedom of will.[1]

PART I

Hylomorphism and the Theory of Distinction

This page intentionally left blank

1

The Unity of Descartes's Man

1. Introduction

One of the leading problems for Cartesian dualism is to provide an account of the union of mind and body. This problem is often construed to be one of explaining how thinking things and extended things can causally interact. That is, it needs to be explained how thoughts in the mind can produce motions in the body and how motions in the body can produce sensations, appetites, and emotions in the mind. The conclusion often drawn, as it was by three of Descartes's illustrious successors, Malebranche, Spinoza, and Leibniz, is that mind and body cannot causally interact.[1]

I mention this problem of the interaction between thinking things and extended things only to distinguish it from the problem concerning the union of mind and body that I wish to discuss. Some commentators, such as Daisie Radner, maintain that the union of mind and body is metaphysically more fundamental than their interaction and is meant to account for the possibility of such interaction.[2] But not everyone agrees that Descartes should or even can draw a distinction between the union of mind and body and their causal interaction. Margaret Wilson attributes to Descartes a theory of mind-body union that she refers to as the "Natural Institution" theory.[3] According to this theory, "to conceive mind and body as united is just to conceive of mind as subject, at a given time, to experiencing certain sorts of sensations in response to certain movements in the brain; and the brain as subject to certain movements as a result of certain thoughts or volitions in the mind."[4] As she explains,

> [o]n the Natural Institution theory, then, it would seemingly be wrong to say that we experience sensations in different parts of our bodies because of a state of affairs designated as the close or intimate union or intermingling of mind with body. Rather, what we call the close union or intermingling of this mind with this body is nothing but the arbitrarily established

> disposition of this mind to experience certain types of sensations on the occasion of certain changes in this body, and to refer these sensations to (parts of) this body.[5]

Despite the occasionalistic ring to the latter quotation, her point is that on what she refers to as "Descartes's best account of embodiment," the union of mind and body is nothing other than their interaction.[6]

Wilson does acknowledge that it is an important feature of Descartes's theory of embodiment that he does not rest content with the Natural Institution theory and instead tries to account for the interaction of mind and body on the basis of another theory of their union that she refers to as the "Co-extension" theory.[7] However, she dismisses this Co-extension theory as "seemingly almost ineffable."[8] Thus she seems to think both that it would have been better if Descartes had stuck solely to the view that the union of mind and body just is their interaction and that his attempt to draw a distinction between their union and their interaction rests on a hardly intelligible theory of the nature of their union.

This problem of the nature of the union between mind and body, as opposed to the problem of their interaction, is the subject of this essay. Moreover, I do not wish to discuss the nature of the union of mind and body with respect to its success in solving the problem of mind-body interaction. I disagree with Radner's seeming belief that the sole problem the notion of the union between mind and body is meant to solve is the problem of their interaction.[9] Instead, I think that it also has a more important task, which is to explain how two really distinct things, mind and body, can somehow generate another thing, the man or human being, which is itself a unity, that is, a genuine individual or an *ens per se*. Thus, what I want to ask is whether there is in Descartes's philosophy a notion of the union of mind and body that gives a satisfactory account of the unity of the man or human being, that is, an account according to which a human being has an intuitive claim of being one thing, and not merely two things conjoined.

That Descartes considers a human being to be a genuine individual is an underappreciated fact among English-speaking commentators. To take an extreme case, in a recent article, Fred Sommers alleges that "a Cartesian person is a non-individual, since it is composed of a mind and a body," and he leaves the impression that it is Descartes's intention to characterize human beings as non-individuals.[10] And even Wilson, who does acknowledge that one of the defects of the Natural Institution theory is that it "can be construed as having unorthodox implications with respect to the unity of man," fails to give due weight to the seriousness of this defect.[11] However, as I shall argue, whether or not Descartes succeeds, it is surely his intention to leave the human being intact as an individual.

The French commentators, much more than their English-speaking counterparts, do put appropriate emphasis on the unity of Descartes's man. But while they grant Descartes the intention to preserve the unity of a human being, they deny that

he is successful. Étienne Gilson, for example, asserts that "[m]edieval philosophy distinguished the body and soul less really than Descartes, in that they did not make two complete substances, and this is why they had less difficulty than Descartes in uniting them."[12]

In what follows, I want to defend Descartes's account of the unity of a human being. In section 2, textual evidence will be cited in support of the view that Descartes does think that his man is a unity. In section 3, I will argue that Descartes believes mind inheres in body as form inheres in matter, and that this hylomorphic conception of the union of mind and body does real philosophical work for him, and is not, as several commentators have said, a conception to which he gives, to quote Bernard Williams, "little metaphysical weight."[13] In discussing the most important objection against taking his hylomorphism seriously, I will argue contrary to Gilson that Descartes's account of the *per se* unity of his human being compares favorably with medieval accounts of *per se* unity, and indeed is remarkably close to the views of Scotus and Ockham.

2. Descartes's Belief That a Human Being Is a Unity

It is certainly true that Descartes emphasizes the real distinction between mind and body much more than the unity of a human being. He admits as much in a letter to Princess Elizabeth and gives a hint as to why:

> There are two facts about the human soul on which depend all the knowledge we can have of its nature. The first is that it thinks, the second is that, being united to the body, it can act and be acted upon along with it. About the second I have said hardly anything; I have tried only to make the first well understood. For my principal aim was to prove the distinction between soul and body, and to this end only the first was useful, and the second might have been harmful. (AT III 664; CSMK 217–8).

In another letter, this time to Regius, he makes a very similar remark:

> many more people make the mistake of thinking that the soul is not really distinct from the body than make the mistake of admitting their distinction and denying their substantial union, and in order to refute those who believe souls to be mortal it is more important to teach the distinction of parts in a human being than to teach their union. (AT III 508; CSMK 209)

But to teach the distinction between mind and body is not to deny their union.[14] Earlier in the same letter to Regius, Descartes advises him to say that he believes a human being is a true *ens per se*:

> And whenever the occasion arises, in public and in private, you should give out that you believe that a human being is a true *ens per se*, and not an

> *ens per accidens*, and that the mind is united to the body in a real and substantial manner to the body. You must say that they are united not by position or disposition, as you assert in your last paper—for this too is open to objection and, in my opinion, quite untrue—but by a true mode of union, as everyone agrees, though nobody explains what this amounts to, and so you need not do so either. (AT III 493; CSMK 206)

These three passages from the letters to Princess Elizabeth and Regius give clear indication that, contrary to the claim of Sommers, Descartes does not call into question the Aristotelian and common-sense view that a human being is a genuine unity, that is, an individual. However, the evidence from the letter to Regius might be challenged on the grounds that Descartes's advice to him does not reflect his real views but is merely a strategic response to avoid further controversy. Regius, an exponent of Descartes's views at the University of Utrecht, had offended his Aristotelian colleagues, who, led by Voetius, attempted to get the magistrates to forbid him to teach. In this letter, Descartes is coaching Regius how to respond to a public disputation in which the followers of Voetius had challenged Regius's claims that a human being is an *ens per accidens*, that the earth moves around the sun, and that substantial forms should be rejected (CSMK 205 n. 2).

Although I acknowledge that accusations of disingenuousness are difficult to defeat, my own belief is that this letter does reflect Descartes's real views.[15] Even though he admonishes Regius for his lack of tactfulness in openly denying substantial forms instead of merely showing their uselessness, his own reply scarcely conceals his contempt for substantial forms, not to mention his contempt for Aristotelians in general and Voetius in particular. Moreover, one wonders what motivation he would have had for concealing his real views from Princess Elizabeth.

There is other important evidence that Descartes believes a human being is an individual. In the *Sixth Meditation*, he asserts that he is not present in his body as a sailor in a ship, but is "closely joined and, as it were, mixed together with it, so that I make up one thing with it" (AT VII 81; CSM II 56). Moreover, in several passages he refers to the substantial union of mind and body.[16] By using the expression 'substantial union' I take him to be pointing out not merely that the union is a union of two substances, which he does think is the case, but that the product of the union is itself a substance.[17] The fact that he considers a human being to be a substance provides further evidence that he thinks that a human being is a genuine individual, since a substance just is an individual. Descartes uses the terms 'substance,' '*ens per se*,' and 'complete thing' interchangeably, and all of them I take to be equivalent to my terms 'individual' and 'genuine unity.'[18]

There is a standard picture of the Cartesian created universe that perhaps contributes to the tendency to deny that Descartes conceives of a human being as a genuine individual. According to this picture, the Cartesian created universe is populated by a lot of minds, but by only one extended substance, the entire extended world, of

which individual bodies are merely modes. Such a picture makes it difficult to see how a human being could be a genuine individual. How could a substance, in this case a mind, be combined with a mode of another substance, in this case a human body, to form a genuine unity?

Martial Gueroult, the most persuasive defender of the view that Cartesian bodies are not substances but modes, ascribes to Descartes a very strong notion of what it is to be a created substance in the strict sense, according to which only God can cause substances to come into or to go out of existence, and according to which substances can go out of existence only by annihilation.[19] If this strong conception of created substance were the proper one, it would exclude human beings from the class of substances not only indirectly, by entailing, as Gueroult at least thinks it does, that there is only one extended substance of which individual bodies are modes, but also directly: first, human beings go out of existence when other bodies cause the death of the human body, and second, on Descartes's view a human being need not be annihilated to go out of existence, since he thinks the soul survives. The key evidence in favor of Gueroult's interpretation is a famous passage from the Synopsis of the *Meditations*:

> First, we need to know that absolutely all substances, or things which must be created by God in order to exist, are by their nature incorruptible and cannot ever cease to exist unless they are reduced to nothingness by God's denying his concurrence to them. Secondly, we need to recognize that body, taken generally, is a substance, so that it too never perishes. But the human body, in so far as it differs from other bodies, is simply made up of a certain configuration of limbs and other accidents of this sort; whereas the human mind is not made up of any accidents in this way, but is a pure substance. For even if all the accidents of the mind change, so that it has different objects of the understanding and different desires and sensations, it does not on that account become a different mind; whereas a human body loses its identity merely as a result of a change in the shape of some of its parts. And it follows from this that while the body can very easily perish, the mind is immortal by its very nature. (AT VII 13–4; CSM II 10)

Even this passage, however, does not provide unambiguous evidence for the standard picture of the Cartesian extended universe. First, it is not at all clear that Descartes is referring to the extended universe taken as a whole when he says that body, at least taken generally, is a substance ("*corpus quidem in genere sumptum esse substantiam*").[20] Second, he falls short of saying that individual bodies are modes.

Nor do I think Gueroult has made a convincing case that the strong conception of created substance is the proper one. Noting that elsewhere Descartes does explicitly refer to bodies as substances, Gueroult also ascribes to him a loose conception of created substance in addition to the strong conception of the Synopsis.[21] Any subject is a substance in this loose sense. I agree that Descartes does have both

a strong and a weak conception of created substance. But I do not agree that entities that are substances in the weak sense, such as bodies, are, strictly speaking, modes and not full-fledged substances. To respond briefly, Gueroult does not cite a single passage where Descartes says that bodies are modes to offset the passages where Descartes says they are substances. Moreover, Descartes seems committed to denying that bodies are modes, since he says that bodies are parts of matter and denies that modes are parts.[22]

In the Synopsis passage quoted earlier, Descartes suggests that entities that satisfy the conditions of the strong conception of created substance are not composed of parts or other similar accidents. Following his language in that passage, we can refer to such substances as pure substances. But even though bodies are composed of parts and so fall short of being pure substances—we might call them impure substances—they nevertheless should still be considered as full-fledged substances. Therefore, contrary to the standard picture of the Cartesian created universe, Descartes, in constructing a human being, does not face the impossible task of generating a unity out of a substance and a mode of another substance. His task, which may seem equally impossible, is that of generating a unity out of two substances.[23]

3. Descartes's Hylomorphism

It is well known that Descartes rejects substantial forms and real qualities. This creates a certain skepticism toward the claim that he conceives of the mind as the substantial form of the human being. But what is less well known is that in the same letter to Regius cited earlier, which is where he makes his most concerted attack on substantial forms, he also asserts both that the human soul is the substantial form of the man and that it is the only substantial form, whereas the rest of the so-called substantial forms are composed of the configuration and motion of the parts of matter (AT III 503, 505; CSMK 207–8).[24]

As I have already mentioned, there is some controversy whether this letter should be taken at face value. But it should not be so surprising that Descartes would consider the human soul or mind to be the only substantial form. Neither of his two major reasons for rejecting substantial forms applies to the human soul. First, one of his major reasons for rejecting substantial forms and real qualities is that explanations which appeal to them are anthropomorphic, that is, they attribute to bodies properties which properly belong only to the human soul:

> But what makes it especially clear that my idea of gravity was taken largely from the idea I had of the mind is the fact that I thought that gravity carried bodies towards the centre of the earth as if it had some knowledge of the centre within itself. For this surely could not happen without knowledge, and there can be no knowledge except in a mind. (AT VII 442; CSM II 298)

> The first is that I do not suppose there are in nature any *real qualities*, which are attached to substance, as little souls to their bodies, and which can be separated from them by divine power. (AT III 648; CSMK 216)
>
> The earliest judgements which we made in our childhood, and later on the influence of traditional philosophy, have accustomed us to attribute to the body many things which belong only to the soul, and to attribute to the soul many things which belong only to the body. So people commonly mingle the two ideas of body and soul when they construct the ideas of real qualities and substantial forms, which I think should be altogether rejected. (AT III 420; CSMK 188)

Obviously, this objection that explanations appealing to substantial forms are anthropomorphic does not apply to an explanation that takes the human soul to be a substantial form.

Second, Descartes's other major reason for rejecting substantial forms is that they are merely theoretical entities that he thinks are dispensable because they have no explanatory value, whereas explanations in terms of the motions and configuration of the parts of bodies are successful (AT II 200; CSMK 107: AT XI 25–6; CSM I 89). The human soul, in contrast, is not a mere theoretical entity. That he exists and that he is a thinking thing are the first two propositions Descartes claims to know with certainty in the *Second Meditation* (AT VII 25, 27; CSM II 17, 18). Thus, on my view, he should not be construed as first rejecting substantial forms generally, and subsequently making an exception of the human soul in order to do some required philosophical work. On the contrary, he is to be construed as beginning with the view that the human soul is a substantial form and as rejecting the attempt to use the human soul as a model for explanations of the nonhuman physical world.

In addition to these passages in the letter composed for Regius in which he asserts that the soul is the substantial form of the human being, several other texts support the view that he thinks the mind inheres in the body as form inheres in matter. In the *Rules*, he says that the mind informs the body (AT X 411; CSM I 40), and in the *Principles* he says that the human soul informs the whole body (AT VIIIA 315; CSM I 279). In the *Third Meditation*, he says that he judges that he exists in the body (AT VII 50; CSM II 35). In the *Replies to the Sixth Objections*, he says that the mind, even though a substance, can be said to be a quality of the body to which it is connected (AT VII 441–2; CSM II 297–8).[25]

Despite the fact that there are numerous passages in which Descartes seems to commit himself to the view that the soul informs the body as form inheres in matter, many commentators are inclined to dismiss them. The one notable exception among contemporary commentators is Geneviève Rodis-Lewis, who does take these remarks seriously as expressing Descartes's own views.[26] But, as already mentioned, Bernard Williams alleges that Descartes gives them little metaphysical weight.

Gilson argues that "even though we do not forget the art that Descartes always had to put new wine in old bottles," in this instance it is a case of not preserving anything of the idea with the expression.[27] Henri Gouhier, perhaps even less charitably, claims that "what Descartes retains from scholastic philosophy is precisely what is not philosophical."[28]

In what follows, I shall defend Descartes's account of the unity of a human being by responding to various reasons for thinking that the old scholastic notions of form inhering in matter cannot do for him the philosophical work of uniting mind and body into a single entity. I shall consider four different sorts of such objections to Descartes's hylomorphism.

The first objection is that Descartes believes thought and extension are incompatible because any extended thing is divisible whereas no thinking thing is divisible (AT VII 85–6; CSM II 59). Therefore, a human being could not be an individual because having both attributes, thought and extension, it would be both divisible and indivisible. My reply is that it is only the mind considered alone that Descartes thinks is indivisible. He does not say of the composite human being that it is indivisible.[29]

The second objection, that the Cartesian mind is not the right sort of entity to inhere in a substance, can be generated from remarks made by Gouhier. Gouhier asserts that according to Descartes's two definitions of substance, a substance is a subject that, metaphysically as well as grammatically, can never be an attribute, where the term 'attribute' is being used in its more general sense to mean quality.[30] Thus, if, by definition, no substance can ever be a quality, then, since the mind is a substance, it would be contradictory for Descartes to maintain that the mind can be a quality of body, that is, could inhere in a body.

This argument can be readily dismissed. Gouhier is simply mistaken in ascribing to Descartes the view that no substance can be a quality. It is not, as Gouhier claims, a consequence of either of Descartes's two definitions of substance. The definition from the *Replies to the Second Objections*, that a substance is a thing in which or through which qualities exist as in a subject, does not entail that a substance itself could not exist in a thing as in a subject (AT VII 161; CSM II 114). The *Principles* definition, that a (created) substance is a thing that needs only the concurrence of God in order to exist, also does not entail that no substance can be a quality (AT VIIIA 24; CSM I 210). What it does entail is that a created substance, unlike a mode or attribute, can exist without existing in a subject, that is, it can exist without being a quality (of a created substance). But it does not follow from the fact that in order to be a substance a thing must be able to exist without existing in a subject that it cannot exist in a subject.[31]

Moreover, there is decisive textual evidence that Descartes's conception of what it is for a thing to be a (created) substance is, unlike Aristotle's, sufficiently weak to require only that the thing be able to exist without existing in a subject and not that it never exist in a subject. One important piece of evidence is the terminology itself. That a substance or *ens per se* is a thing that can exist with only itself as a

subject, or alternatively, without any subject, follows directly from the supposition that Descartes uses the word '*per*' to mean the same thing in the term '*ens per se*' and in the definition of substance in the *Replies to the Second Objections*, where it is used to characterize the relation between a quality and its subject (AT VII 161). Another piece of evidence is that the entities he cites as examples of incomplete things are modes, for example, motion, shape, and the faculties of mind (AT VII 120, 224; CSM II 85–6, 158), and modes are dependent because they must exist in some thing in order to exist (AT VII 222; CSM II 156–7). Third, and most important, in arguing against real accidents, he makes it clear that he thinks the kind of separate existence that is sufficient for a thing to be considered a substance is its capability of existing apart from a subject.

> Secondly, it is completely contradictory that there should be real accidents, since whatever is real can exist separately from any other subject; yet anything that can exist separately in this way is a substance, not an accident. The claim that real accidents cannot be separated from their subjects 'naturally,' but only by the power of God, is irrelevant. For to occur 'naturally' is nothing other than to occur through the ordinary power of God, which in no way differs from his extraordinary power—the effect on the real world is exactly the same. Hence if everything which can naturally exist without a subject is a substance, anything that can exist without a substance even through the power of God, however extraordinary, should also be termed a substance. (AT VII 434–5; CSM II 293)

More specifically, it is useful for our purposes to mention his analogy of mind-body union with what he considers to be the ordinary, but mistaken, view of the relation between gravity and body. He argues that just as gravity is considered to be a real quality, that is, a quality that exists in body but can exist apart from it, so the mind can be said to be a quality of body, even though it can exist apart from body (AT VII 441–2; CSM II 297–8). Although this account of gravity is incorrect because if it were something that could exist apart from a subject, it would be a substance, which it is not, Descartes believes that anyone who has accepted this account of gravity should be willing to accept the notion of mind-body union.[32] As he says in a letter to Arnauld,

> So it is no harder for us to understand how the mind moves the body than it is for them to understand how such gravity moves a stone downwards. It does not matter that they say that that gravity is not a substance, because they conceive it in fact as a substance since they think that it is real and that it can exist without the stone through some power (namely, divine). (AT V 222–3; CSMK 358)

The third sort of objection includes those that attack his use of the hylomorphic model of mind-body union by challenging this analogy with gravity. One such

objection is made by Wilson. She notes that on what she refers to as the Co-extension theory of mind-body union, the mind, like gravity, is said to be "co-extensive with the body, 'whole in the whole and whole in any of its parts.'"[33] Her objection is that this talk of gravity and coextensiveness is merely obfuscating.[34] To evaluate this charge, it will be useful to have Descartes's statement of the gravity analogy before us. What he says is the following:

> although I imagined gravity to be scattered through the whole body that is heavy. . . . Moreover, I saw that gravity, while it remained coextensive with the heavy body, could exercise all its force in any part of the body; for if the body were hung from a rope attached to any part of it, it would still pull the rope with all its gravity, exactly as if that gravity were only in the part touching the rope and not also scattered through the remaining parts. Indeed it is in no other way that I now understand the mind to be coextensive with the body, whole in the whole, and whole in any of its parts. (AT VII 442; CSM II 298)

He seems to be suggesting here that since the entire gravity of a body can act at any part to which a rope is attached, it must exist in the body whole in any of its parts. What I like about this example is that it provides a picture of how something that exists in a whole body can nevertheless be conceived to exist whole in one of its parts. It exists whole in one of its parts if the whole of it can act in that part. But if I understand Wilson, she seems to find the analogy obfuscating because she is still left wondering how he can reconcile his assertion that the soul "exercises its functions more particularly" in the pineal gland with, first, the assertion that the soul exists whole in the whole body, and second, that it exists whole in every distinguishable part of the body.[35]

I agree that the gravity analogy does not help us understand how the soul exists whole in the whole body, nor does it explain how the soul exists whole in every distinguishable part of the body, although the last sentence of the quotation—"[i]ndeed it is in no other way that I now understand mind to be coextensive with the body, the whole in the whole, and the whole in any of its parts"—suggests that Descartes thinks it does. What the analogy does illuminate is how something we already take to exist whole in the whole, such as gravity, can still exist whole in a part. But I do not agree that he should find it especially difficult to find "some sort of accommodation" between his claim that the soul acts on the pineal gland and his claims that it exists whole in the whole body and whole in any part of the body.[36]

In defense of Descartes, let me begin by pointing out that Aquinas had similar worries about reconciling his own view with that of Aristotle. In the *Summa Theologica*, one of the objections he considers to his own view that the soul exists whole in each part of the body is Aristotle's assertion in *On the Movement of Animals* that "there is, then, no need of soul in each part: it is in some governing origin of the body, and other parts live because they are naturally attached, and do their tasks

because of nature."[37] Aquinas's solution to this objection is to say that Aristotle is speaking of the motive power of the soul.[38] According to Aquinas, since the soul is the substantial form of the body, it must exist whole in each part of the body, but its powers need not exist in every part of the body.

Not only could Descartes make the same distinction between the soul and its power to move the body, but he actually does make it in *The Passions of the Soul*.[39] In part I, article 30, he says:

> it is necessary to know that the soul is truly joined to the whole body, and that one cannot properly say that it is in some one of its parts to the exclusion of others (AT XI 351; CSM I 339).

And in article 31, he says:

> although the soul is joined to the whole body, there is nevertheless in the body a certain part in which the soul exercises its functions more particularly than in all the others. And it is usually believed that this part is the brain, or perhaps the heart (AT XI 351–2; CSM II 340).

When he speaks of the soul exercising its functions, I take him to be referring to what Aquinas refers to as the motive power of the soul. Thus the major difference between Descartes and the Aristotelians on this score, as Descartes sees it, is that he associates the motive power of the soul with a part of the brain, whereas they have associated it with the whole brain or with the heart. But there is no reason why he should be any less justified than Aquinas in asserting both that the soul exists whole in the whole body and whole in each of its parts, even if its motive power does not exist whole in each of its parts. According to Aquinas, if a form is not divided when its subject is divided, then it follows that the whole of it is in each part of the body.[40] This is precisely what Descartes claims about the human mind in article 30, as well as in the *Sixth Meditation*—it is not divided when the body is divided (AT VII 85–6; CSM II 59). Still, one might object that all this consideration shows is that if the human body were the subject of the mind, the mind would exist whole in every part of the body. But it does not settle the issue of whether the human body, as opposed to the pineal gland, is the mind's subject. So on what grounds can Descartes claim that the whole body is the mind's subject? Aquinas seems to think that the subject of the soul is that which is actualized by the soul.[41] Is there any suitably powerful sense in which the Cartesian mind can be said to actualize the human body? I think that there is. In a letter to Mesland, February 9, 1645, Descartes says:

> First of all, I consider what exactly is the body of a man, and I find that this word 'body' is very ambiguous. When we speak of a body in general, we mean a determinate part of matter, a part of the quantity of which the universe is composed. In this sense, if the smallest amount of that quantity

> were removed, we would judge without more ado that the body was smaller and no longer complete; and if any particle of the matter were changed, we would at once think that the body was no longer quite the same, no longer numerically the same. But when we speak of the body of a man, we do not mean a determinate part of matter, or one that has a determinate size; we mean simply the whole of the matter which is united with the soul of that man. And so, even though that matter changes, and its quantity increases or decreases, we still believe that it is the same body, numerically the same body, so long as it remains joined and substantially united with the same soul; and we think that this body is whole and entire so long as it has in itself all the dispositions required to conserve that union. Nobody denies that we have the same bodies as we had in our infancy, although their quantity has much increased, and according to the common opinion of doctors, which is doubtless true, there is no longer in them any part of the matter which then belonged to them, and even though they no longer have the same shape; so that they are only numerically the same only because they are informed by the same soul. Personally, I go further. I have examined the circulation of the blood, and I believe that nutrition takes place by a continual expulsion of parts of our body, which are driven from their place by the arrival of others. Consequently I do not think that there is any particle of bodies which remains numerically the same for a single moment, although our body, insofar as it is a human body, always remains numerically the same so long as it is united with the same soul. In that sense, it can even be called indivisible; because if an arm or a leg of a man is amputated, we think that it is only in the first sense of 'body' that his body is divided—we do not think that a man who has lost an arm or a leg is less a man than any other. Altogether then, provided that a body is united with the same rational soul, we always take it as the body of the same man, whatever matter it may be and whatever quantity or shape it may have; and we count it as the whole and entire body, provided that it needs no additional matter in order to remain joined to this soul. (AT IV 166–7; CSMK 242–3).

Similarly, in another letter to Mesland, dated 1645 or 1646, he says:

> it does not cease to be true to say that I have now the same body that I had ten years ago, even though the matter of which it is composed has been replaced, because the numerical unity of the body of a man does not depend on its matter, but on its form which is the soul. (AT IV 346; CSMK 278–9)

What these passages suggest is that if the determinate part of matter that is united to my mind ceases to be united to my mind, it will cease to constitute the body I now have. It may perhaps continue to exist as a body, in this case a corpse, depending on the circumstances of my death, but it will no longer constitute my body. My body

will have ceased to exist. There is, therefore, a suitably powerful sense in which the mind actualizes the human body—a human body exists only so long as it is united to the mind.[42] Moreover, the entire human body cannot be constituted by the pineal gland alone, because the pineal gland needs "additional matter in order to remain joined to this soul." It does not have "in itself all the dispositions required to conserve that union."

It is true that for Aquinas, as well as for Aristotle, closely associated with the notion of a part of the body being actualized by the soul is the notion of that part of the body retaining its proper action or function. It is a necessary condition of a body and its parts retaining their proper functioning that it be ensouled.[43] In contrast, Descartes, as an element of his mechanism, banishes the notion of bodies or their parts having a proper action or function to the realm of God's inscrutable will. But I do not think that this difference, as important as it is, somehow makes it implausible for him to say that the subject of the mind is what we normally take to be a human body and instead commits him to the view that the pineal gland is the subject of the mind. And even for Descartes, the notion of the soul's actualizing the body is not entirely divorced from the notion of teleological explanation.[44] To the extent that teleological explanation of the behavior of bodies retains a place in Descartes's philosophy, it is the purposeful behavior of human bodies that is accounted for, as it was for the Aristotelians, by their being ensouled.[45]

A second objection to the gravity analogy is raised by Gilson. He accuses Descartes of offering a closed and exceedingly short circle of explanation that is consequently empty. He points out that on the one hand Descartes uses the gravity analogy to make sense of the relation between mind and body and that on the other hand, as we have seen, Descartes asserts that our understanding of gravity rests on a confusion of our ideas of mind with those of body.[46]

Gilson is correct that we gain no understanding from the gravity analogy of how mind can exist apart from body, because it is only by confusing gravity with mental substance that we think gravity can exist apart from body. But the understanding of what it is to exist whole in any of the parts, which we do gain from the gravity analogy, is not undermined when we see that there are certain flaws in our conception of gravity that arise from importing notions that properly belong only to mind, namely, that it can exist apart from body and that it must have knowledge. However, it might be claimed in defense of Gilson, even though he himself does not make this argument explicitly, that it is not just the conception of gravity as capable of existing apart from body and its having knowledge that illegitimately import notions that properly belong only to mind, but that our conception of gravity as existing whole in any of the parts does as well.[47] One such argument points out that to exist whole in any of the parts is for the whole to be capable of acting in any of the parts, but only minds can act. Another argument points out that even if things other than minds can act, for Descartes there is no such thing as gravity that acts. If the term 'gravity' is used properly, it refers to a certain effect that is explained by his vortex theory of motion.

The second argument does tell against the gravity analogy. But there is another analogy available. Descartes could have instead compared the mind with what he called the quantity of motion of a body that collides with another body. He would have been willing to say, I think, that the entire quantity of motion of the body acts in the point that touches the other body. And I do not think that this analogy is circular, since I do not see how this conception of the quantity of motion acting at a point imports notions belonging to mind.

The fourth and most important sort of objection to the view that Descartes can use the form-matter model to explain the unity of the man derives from medieval accounts of *per se* unity, and ultimately from Aristotle. The objection is that even if the mind does inhere in the body as form inheres in matter, nevertheless, no substance, hence nothing that is an *ens per se*, can be constituted from another substance or substances. While Aristotelian substances are themselves composites of form and matter, the composite of a substance and an accident, for example, Socrates and whiteness, is not an *ens per se* but an *ens per accidens*. Thus the charge against Descartes is that he cannot consistently maintain that the body, the mind, and the human being are all substances.[48]

In defense of Descartes, I shall argue, relying on the work of Marilyn Adams, that his account of composite unity compares favorably with those of Aquinas, Scotus, and Ockham.[49] Indeed, I will argue that despite terminological differences, his account is really the same as that of Scotus and Ockham.

Aquinas's position is that an *ens per se* cannot have a plurality of actual constituents. Thus he concludes that a substance can have only one substantial form, and he relegates prime matter from the realm of actuality to the realm of pure potentiality. But Aquinas was in the minority. To quote Marilyn Adams, "most others were convinced by a variety of arguments that prime matter must have an actuality of its own and living substances a plurality of substantial forms . . . and inferred that a plurality of actual constituents does not interfere with a thing's being one *per se*."[50]

These arguments, at least as presented by Adams, I find completely devastating of Aquinas's position, although she herself is more sympathetic to him. Let me mention one argument by Scotus that I think is especially powerful. He alleges that prime matter, conceived as pure potentiality, cannot fulfill its role of being the ultimate subject of inherence, on the ground that pure potentiality is simply nonbeing, and nonbeing cannot be an ultimate subject of inherence.

Scotus and Ockham, in contrast with Aquinas, hold that an *ens per se* can be composed of a plurality of actual things. For example, on Ockham's view, prime matter, the form of corporeity, the sensory soul, and the intellectual soul are all actual constituents of a human being, which he thinks is an *ens per se*. Their view is that what permits the essential unity of the composite is not the non-actuality of all but one of the components, but rather that none of the components is itself a complete thing, that is, a substance. Consequently, on the surface at least, they disagree with Descartes about what kinds of entities can combine to form an *ens per se*,

because Descartes wants to assert that really distinct substances can unite to form an *ens per se*.

However, the Cartesian conception of what it is to be a (created) substance or complete thing, namely, that a substance is a thing that can exist without existing in anything as in a subject, is sufficiently weak that entities that Scotus and Ockham consider to be mere actual things, such as prime matter, the form of corporeity, and the intellectual soul, would, if they had the property Scotus and Ockham ascribe to them of being able, at least by divine power, to exist apart from other things, count as Cartesian substances. Therefore, Scotus, Ockham, and Descartes are in fundamental metaphysical agreement that things that can exist apart from each other can form an *ens per se*, provided that they stand in the appropriate relation to one another. And all agree that the relation in question is the inherence relation. Where they disagree is with respect to, first, their judgments as to which entities in fact have the capability of existing apart from one another, and second, the meaning of the term 'substance' or 'complete thing.' For example, Scotus and Ockham would agree, but Descartes would not agree, that whiteness can exist apart from a substance.[51] Moreover, Scotus and Ockham would agree that it does not follow from the fact that whiteness can exist apart from a subject that it is a substance, whereas Descartes would assert that if whiteness could exist apart from a subject, then it would be a substance. Nevertheless, since Descartes is in fundamental agreement with Scotus and Ockham on the formal conditions for the *per se* unity of composites, he is equally entitled to claim that his human being is an *ens per se*.

However, to defend Descartes's account of the unity of a human being by arguing that it is no worse than that of his predecessors is not necessarily to mount a very strong defense. There remains a serious question whether any hylomorphic ontology can generate a human being that is a genuine unity. Since the hylomorphic complexes of Scotus, Ockham, and Descartes contain components that can exist apart from the others, it would seem to follow that it is only a contingent fact about the components that they are united at all, so the unity would be a mere accidental unity and not a *per se* unity.

One strategy Descartes could use to reply to this objection is suggested by his account of the identity of the human body mentioned earlier, according to which the numerical identity of the human body is determined by its union with the soul. He could propose that a union of things generates a *per se* unity when that union is not accidental to at least one of the components. This would entail that a human being is an *ens per se*, provided that a human being is understood to be a composite of a mind and a human body, as opposed to being a composite of a mind and a determinate part of matter.

This strategy might seem unsatisfactory because it might seem that by generating a sufficient dependency between mind and body to claim that their union is not accidental, he undermines his claim that they are really distinct. If the human body cannot exist without being united to the mind, it would seem to follow by his

own criteria that mind and body are only modally distinct. I have argued elsewhere, however, that his account of real distinction does not require that mind and body can each exist out of real union with the other. Instead, what he does require for real distinction, namely, that each can exist without having the essential attribute of the other existing in it, is consistent with the claim that the body must be united to the mind in order to exist.[52]

But this strategy is still objectionable because it appeals to a very weak notion of *per se* unity. Instead of a composite being an *ens per se* just so long as the union is not accidental to at least one of the components, it would seem that, on the contrary, a composite is an *ens per accidens* just so long as the union is accidental to at least one of the components. Thus instead of inferring that a human being is an *ens per se* because the union is not accidental to the human body, we should infer that a human being is an *ens per accidens* because the union is accidental to the mind.

Let me mention two possible replies to this objection. The first reply provides what I consider to be a more philosophically satisfying solution to the objection, but Descartes himself seems to have endorsed the second. According to the first reply, he should have conceded that in the ordinary case, a composite is an *ens per accidens* if the union is accidental to one of the components, but then added the proviso that the composite is an *ens per se* if it is only in virtue of divine power that the union is accidental to one of the components. There is some textual evidence in support of this reply. In a letter of December 1641, in which he is again coaching Regius, under fire for asserting that a human being is an *ens per accidens*, he advises him to say that it is not absolutely accidental to the mind that it be united to the body or to the body that it be united to the mind, and tells him not to deny that it is only due to a miracle that they can exist apart.

> It may be objected that it is not accidental for the human body to be joined to the soul, but its very nature; because if the body has all the dispositions required to receive a soul, which it must have to be strictly a human body, then short of a miracle it must be united to a soul. Moreover, it may be objected that it is not the soul's being joined to the body, but only its being separated from it after death, that is accidental to it. You should not altogether deny this, for fear of giving further offence to the theologians; but you should reply that these things can still be called accidental, because when we consider the body alone we perceive nothing in it demanding union with the soul, and nothing in the soul obliging it to be united to the body; which is why I said above that it is accidental in a sense, not that it is absolutely accidental. (AT III 460–1; CSMK 200)

It is important to note that when he says in this passage that in considering the body alone we perceive nothing in it demanding union with the soul, he suggests, contrary to what I have said so far, that the mind's subject is a body whose identity

conditions do not depend on its being united to the mind. Hence the body that is the mind's subject would be not the human body, but the determinate part of matter. In that case, there would no longer be any clear sense in which the mind actualizes its subject. But, as we have seen, part of Scotus's attack on Aquinas's account of composite unity is to deny that a substantial form needs to actualize its subject, because a subject must already be actual. This might seem to reintroduce the problem of fixing which determinate part of matter is the mind's subject—why isn't it just the pineal gland? But the same answer is still available. Descartes can respond that the pineal gland by itself cannot be the mind's subject because it needs additional matter in order to remain joined to the mind. Moreover, according to the proposal under consideration of distinguishing between *entia per accidens* and *entia per se* on the basis of the distinction between ordinary accidental unions and those unions that are accidental only because God has the power to create one of the component parts out of real union with the others, Descartes could still maintain that a human being is an *ens per se* even if the mind's subject were not the human body but the determinate part of matter. It would still be the case that it would require a miracle for the determinate part of matter with all the dispositions required to receive the soul to exist apart from it.

One problem with this strategy of distinguishing between an *ens per accidens* and an *ens per se* on the basis of the distinction between an ordinary accidental union and a union that is accidental only because God has the power to create one of the component parts out of real union with the others is that Descartes only attributes the latter distinction to his opponents; he does not endorse it. And indeed, in the *Replies to the Sixth Objections*, he denies that such a distinction can be made: "to occur 'naturally' is nothing other than to occur through the ordinary power of God, which in no way differs from his extraordinary power" (AT VII 435; CSM II 293).[53]

But I do not myself see why Descartes could not have allowed such a distinction. There is no incoherence in maintaining both that it is a sufficient condition for a thing's being a substance that it can exist apart from a subject, even if only by divine power and not naturally, and that it is a necessary condition for things to constitute an *ens per se* that they can exist out of real union only by divine power and not naturally. Nor does such a distinction appear to conflict with any other Cartesian doctrine.

Such a defense of the *per se* unity of a human *being* does, however, create a difficulty for my account of the status of bodies. I have alleged that Descartes believes bodies are substances and that he uses the terms 'substance' and '*ens per se*' interchangeably. Yet since a union of parts of bodies can be disrupted naturally, by the actions of other bodies, and moreover, since those parts can continue to exist without any special action by God, it would follow that bodies are not *entia per se*, hence not substances. Now what I think is the best response to make on Descartes's behalf here is to concede that in the end there is a distinction to be drawn between an *ens per se* and a substance. To be a substance, it is sufficient to be able to exist apart from

a subject, whereas for a substance to be an *ens per se*, it is necessary that whatever parts it has can exist out of real union with one another only by divine power.

The other response to the objection that Descartes's human being is not an *ens per se* is found in the same letter to Regius. He advises Regius to say that something can be both an *ens per se* and an *ens per accidens*: "That something which is an *ens per se* may yet come into being *per accidens* is shown by the fact that mice are generated, or come into being, *per accidens* from dirt, and yet they are *entia per se*" (AT III 460; CSMK 200). A human being is an *ens per se* because "the body and the soul, in relation to the whole human being, are incomplete substances: and it follows from their being incomplete that what they constitute is an *ens per se*" (AT III 460; CSMK 200). A human being is an *ens per accidens* because "when we consider the body alone we perceive nothing in it demanding union with the soul, and nothing in the soul obliging it to be united to the body; which is why I said above that it is accidental in a sense, not that it is absolutely accidental" (AT III 460; CSMK 200). Even I have been tempted to say that in advising Regius to assert that a human being is in one sense an *ens per se* and in another sense an *ens per accidens*, he is simply trying to avoid controversy. But this letter is not the only passage where he suggests such a response. In the *Replies to the Fourth Objections*, he asserts that a hand is both complete, when considered by itself, and incomplete, when referred to the whole body of which it is a part, and he uses this example as an analogy to illustrate how mind and body are at once complete and incomplete (AT VII 222; CSM II 157). So his endorsement of this solution does now strike me as sincere. But I have been unable to discover a way to defend its philosophical merits. Allowing one and the same thing to be both an *ens per se* and an *ens per accidens* seems to stretch those concepts beyond the breaking point.

May others speak on his behalf.[54]

4. Conclusion

I have argued that Descartes does take seriously the hylomorphic model of mind-body union. Moreover, I have argued that his account of the unity of a human being compares well with those of his medieval predecessors. The key move in making this comparison has been to point out that his conception of (created) substance is much weaker than the Aristotelian conception—he requires of a substance only that it be able to exist apart from a subject. Thus if his Aristotelian predecessors are permitted to allow as constituents of an *ens per se* actual things which can exist apart from each other, at least by divine power, then so should he.[55]

2

Cartesian Composites

Toward the end of an essay in which I argued that Descartes thinks a human being is a genuine unity, I invited other commentators to come to Descartes's defense by accounting for his apparently contradictory claims that a human being is an *ens per se* and that it is an *ens per accidens*.[1] These claims seem to be contradictory, because in saying that a human being is an *ens per se*, Descartes appears to be asserting that a human being is genuinely one, and in saying that a human being is an *ens per accidens*, he appears to assert that a human being is not genuinely one, but instead is a mere heap or aggregate. In the ensuing eleven years, no one has taken up my invitation, except to argue that I was mistaken in claiming that Descartes thinks a human being has *per se* unity in any robust sense.[2]

In this essay, I will take up the challenge myself, having noticed a similarity between Descartes's account of the unity of composite substances and his account of composite figures having true and immutable natures. After showing how he can consistently maintain that a human being is both an *ens per se* and *ens per accidens* in roughly the same way he can consistently maintain that composite figures both do and do not have true and immutable natures, I will try to respond to criticisms of my claim that he thinks of a human being as a substance or an *ens per se*.

Let me begin with an analysis and comparison of two passages from the *Objections and Replies*. In the first, from the *Replies to the First Objections*, Descartes discusses composite figures. In the second, from the *Replies to the Fourth Objections*, Descartes discusses composite substances.

> Next, to remove the other part of the difficulty, it should be noted that those ideas which do not contain true and immutable natures, but contain only ones which are fictitious and composed by the intellect, can be divided by the same intellect, not only through abstraction, but through a clear and distinct operation, so that any ideas which the intellect cannot so divide were undoubtedly not composed by it. As, for example, when I think of a winged

> horse, or an actually existing lion, or a triangle inscribed in a square, I easily understand that I can also in opposition think of a horse without wings, a non-existing lion, a triangle without a square, and so on; from which it follows that these do not have true and immutable natures. But if I think of a triangle or a square (I do not speak here of a lion or horse because their natures are not clearly evident to us), then certainly whatever I apprehend as contained in the idea of a triangle, as that its three angles are equal to two right angles, etc., I will truly affirm of the triangle, and of the square whatever is found in the idea of the square. For even if I can understand a triangle, abstracting from the fact that its angles should equal two right angles, I cannot nevertheless deny that of it by a clear and distinct operation, that is, correctly understanding that this is what I say. Furthermore, if I consider a triangle inscribed in a square, not in order to attribute to the square those things which pertain only to the triangle or to the triangle those things which pertain to the square, but in order to examine only those things which arise from the conjunction of the two, then its nature will be no less true and immutable than the square or triangle alone, and it will be permitted to affirm that the square is not less than twice the triangle inscribed in it and similar things which pertain to the nature of this composite figure. (AT VII 117–8; CSM II 83–4)
>
> I am not unaware that some substances are commonly called 'incomplete.' But if they are said to be incomplete because they cannot exist *per se* alone, I confess that it seems contradictory to me that they should be substances, that is, things subsisting *per se* and at the same time incomplete, that is, unable to subsist *per se*. But in another sense they can be said to be incomplete substances, namely such that insofar as they are substances, they have nothing incomplete, but only insofar as they are referred to some other substance, with which they compose something one *per se*.
>
> Thus a hand is an incomplete substance when it is referred to the whole body of which it is a part; but it is a complete substance when it is considered alone. And in just the same way mind and body are incomplete substances when they are referred to the man which they compose; but, considered alone, they are complete. (AT VII 222; CSM II 156–7)

In the first passage, Descartes might readily seem to contradict himself.[3] In the first half of the passage, he explains his test for distinguishing ideas containing true and immutable natures from those that contain natures that are merely fictitious and composed by the intellect. If an idea can be divided by a clear and distinct operation of the intellect, it does not contain a true and immutable nature. If an idea cannot be divided by a clear and distinct operation, but merely by abstraction, it does contain a true and immutable nature. Descartes says that triangles pass this test, but triangles inscribed in squares do not. In the second half of the passage he turns around and

asserts that the nature of a triangle inscribed in a square is no less true and immutable than that of the square alone or the triangle alone.

So in the same paragraph Descartes asserts both that the nature of a triangle inscribed in a square is true and immutable and that it is not. He avoids contradiction in the only way possible, which is to relativize the notion of having a true and immutable nature. He says that if we consider a triangle inscribed in a square in order to examine those things which arise from the conjunction of the two, and not to attribute to one of the figures what belongs to the other, then its nature will be true and immutable. This language suggests two candidates for that to which a composite's having a true and immutable nature is being relativized, but for our purposes we need not worry about the difference between them. First, he might be relativizing its having a true and immutable nature to different purposes we have in thinking about the composite: it has a true and immutable nature relative to our examining it with the aim of determining which properties arise from the conjunction of its constituents, and it does not have a true and immutable nature relative to our examining it with the aim of attributing properties to any of its constituents alone. Second, he might be relativizing a composite's having a true and immutable nature to different sets of properties: it has a true and immutable nature relative to those properties that arise only from the conjunction of its constituents, and it does not have a true and immutable nature relative to those properties that arise from any of the constituents alone.[4]

That Descartes would appeal to such a relativization strikes me as a plausible response to an obvious objection one might have about his criterion in the *Fifth Meditation* for distinguishing things having true and immutable natures. He claims there that the mark of things having true and immutable natures is that we can demonstrate properties of them that we did not previously recognize and that once recognized we cannot deny (AT VII 64; CSM II 45). The obvious objection to this criterion is that the composition of things typically generates new properties that are not immediately recognizable. So, for example, we might not immediately recognize all the properties that arise from the composition of a horse and wings or even from the composition of a lion and existence. But this would imply, given the *Fifth Meditation* criterion, that a winged horse and an existent lion have true and immutable natures, contrary to what appears to be Descartes's intention in the *Fifth Meditation*.[5]

Rather than abandon his *Fifth Meditation* criterion for having a true and immutable nature in light of this conflict, Descartes's strategy in the *Replies to the First Objections* is to relativize the notion of having a true and immutable nature. So Descartes can allow that a winged horse and an existent lion do have true and immutable natures relative to the consideration of new properties generated by the composition of a horse and wings and by the composition of a lion and existence. One might object that this strategy undermines his principal aim in introducing the notion of true and immutable natures, which is to ground his ontological argument.

If we grant that an existent lion has a true and immutable nature, we should be able to infer with certainty that there is an existent lion in the same way we can infer that God exists.

I think Descartes can block this inference. According to the relativized account, an existent lion does not have a true and immutable nature with respect to the properties of being a lion and existence because those properties are separable. It has a true and immutable nature only with respect to any new properties F generated by their composition that we cannot deny of an existent lion once they are recognized. So we can infer with certainty that an existent lion is F once we recognize that we cannot separate the idea of F from the idea of existent lion, but that does not entitle us to infer that a lion exists.

It is my thesis that just as Descartes can assert without contradicting himself that a figure that is a composite of two figures each of which has a true and immutable nature both does and does not have a true and immutable nature, so he can assert without contradicting himself that a composite of two substances each of which is complete is both an *ens per se* (or has *per se* unity) and an *ens per accidens*. To do so will require him once again to relativize the relevant notions, but, as we will see, this relativization has a different structure.

One important piece of evidence in support of my claim that there are important similarities in Descartes's accounts of composite substances and composite figures is that he uses almost the same separability test to determine which ideas contain natures that are not true and immutable as he uses to determine whether substances are really distinct. In the case of natures, if the idea of AB can be divided into the idea of A and the idea of B, not merely by abstraction but by a clear and distinct operation, then AB does not have a true and immutable nature. In the case of substances, if the idea of A can be clearly and distinctly conceived apart from B, not merely by abstraction but by exclusion, and vice versa, then A and B are really distinct substances (AT IV 120; CSMK 236). Descartes's account of the distinction between abstraction and exclusion is as follows. To conceive of A without B by abstraction is to think of A without thinking of B; when we think of A and B together we see a connection between them (AT III 420–1; CSMK 188). To conceive of A without B by exclusion is to be able to deny A of B while thinking of both A and B (AT III 474–6; CSMK 201–2).

I turn now to an examination of the second passage I have quoted, the one that concerns substances. Descartes's agenda as he describes it in the first paragraph is to explain how there can be such a thing as an incomplete substance, given that such a notion appears to be contradictory. He grants that the notion of an incomplete substance is contradictory if what we mean by calling something "incomplete" is that it cannot exist *per se* alone, because a substance is that which can subsist *per se*. An incomplete substance would then be something that both can and cannot subsist *per se*. (To subsist *per se*, as understood by both Descartes and Aquinas, is to exist without a subject.)[6] But if by calling something "incomplete" we mean that it is

referred to another substance with which it constitutes something that is one *per se*, then there is no contradiction in calling something an incomplete substance.

In the second paragraph, he relativizes the notion of incompleteness. He says that something can be a complete substance when considered alone and an incomplete substance when it is referred to a whole of which it is a part. The whole, according to the first paragraph, is one *per se*. So Descartes's idea here is that something that can subsist *per se*, and hence is a complete substance when considered alone, can still be an incomplete substance if it is part of a whole that is one *per se*.

Descartes's first example to illustrate this claim is a hand. He says a hand is a complete substance when considered alone and an incomplete substance when referred to the whole body of which it is a part. This implies, given his accounts of what it is to be a complete substance and what it is to be an incomplete substance, that he thinks that a hand can subsist *per se* and also that the human body is one *per se*.

His second example is the one of special concern to us. He says that the mind and body are incomplete substances when referred to the human being that they compose, but considered alone they are complete. These two paragraphs are the most important passage in the entire Cartesian corpus in support of my claim that Descartes thinks the human being is an *ens per se*. While I referred to them in my earlier essay, I did not give them appropriate emphasis.

There are three reasons why these two paragraphs deserve great attention. First, this is the only place in his published works where Descartes commits himself to the view that a human being is one *per se*.[7] Having said in the first paragraph that a substance is incomplete when it is referred to something else with which it composes something one *per se*, his assertion in the second paragraph that the mind and body are incomplete when referred to the human being entails that a human being is one *per se*.[8]

Let me explain this point more formally. I read Descartes as asserting in the first paragraph that any substances A and B composing C are incomplete when referred to C only if C is one *per se*. His subsequent assertion in the second paragraph that mind and body are incomplete when referred to the man that they compose thus entails that a man is one *per se*.[9]

Second, these paragraphs were published just a few months prior to Descartes's two letters to Regius in which he asserts both that a human being is an *ens per se* and that it is an *ens per accidens*. Other commentators have tended to discount the letters to Regius, on the grounds that Descartes was simply trying to avoid controversy with the authorities at Utrecht. But since Descartes had already committed himself in his reply to Arnauld to almost exactly the same view he urges on Regius, his remarks to Regius must be treated with the same respect and seriousness that are typically granted to his reply to Arnauld.

The third significant feature of these paragraphs is the comparison of the mind to the hand. It needs to be emphasized that Descartes's mind is a complete

substance in the same sense that a hand is. To say that the mind can subsist *per se* should not be taken, as it almost always is, to mean anything stronger than what it means to say that a hand can subsist *per se*. The vitally important implication for understanding Descartes is that his notion of what it is to be a complete substance is very weak, much weaker than is commonly attributed to him.[10] When Descartes asserts that the mind is a complete substance, he is read as using the term 'substance' in the same sense that Aristotle did when Aristotle said that a human being is a substance. But Aristotle did not think a hand is a substance in the same sense that a human being is, and this passage makes it clear that it is a serious mistake to think that Descartes thought a mind is a substance in that strong sense. An Aristotelian human being is not incomplete in relation to anything else, but a Cartesian mind is.[11]

Let me turn now to Descartes's two letters to Regius. In the first letter, he admonishes Regius for asserting in his controversy with Voetius that a human being is an *ens per accidens* and he proposes a remedy:

> In your theses you say that a human being is an *ens per accidens*. You could scarcely have said anything more objectionable and provocative. The best way I can see to remedy this is for you to say that in your ninth thesis you considered the whole human being in relation to the parts of which he is composed, and in your tenth thesis you considered the parts in relation to the whole. Say too that in your ninth you said that a human being comes into being *per accidens* out of body and soul in order to indicate that it can be said in a sense to be accidental for the body to be joined to the soul, and for the soul to be joined to the body, since the body can exist without the soul and the soul can exist without the body. For the term 'accident' means anything which can be present or absent without its possessor ceasing to exist—though perhaps some accidents, considered in themselves, may be substances, as clothing is an accident with respect to a human being. Tell them that in spite of this you did not say that a human being is an *ens per accidens*, and you showed sufficiently, in your tenth thesis, that you understood it to be an *ens per se*. For there you said that the body and the soul, by their very nature, are incomplete substances; and it follows from their being incomplete that what they constitute is an *ens per se*.[12] That something which is an *ens per se* may yet come into being *per accidens* is shown by the fact that mice are generated, or come into being, *per accidens* from dirt, and yet they are *entia per se.* (AT III 460; CSMK 200)

Descartes's proposed remedy has two elements. The first element is to relativize. He advises Regius to say that in the ninth thesis when he referred to the human being as an *ens per accidens* he was considering the whole human being in relation to its parts and in the tenth thesis he was considering the parts in relation to the whole. The second element is to distinguish between being an *ens per accidens* and being

made *per accidens*. He advises Regius to deny that the human being is an *ens per accidens* and to say instead that it is made *per accidens*. He claims that something that is made *per accidens* can still be an *ens per se*. In the second letter to Regius, Descartes says that he understands that Regius meant something innocuous when he said that a human being is an *ens per accidens*, but that he was using it in a different sense from that used by the scholastics, so that the dispute between Regius and the scholastics is merely verbal:

> when you said that a human being is an *ens per accidens* I know that you meant only what everyone else admits, that a human being is made up of two things which are really distinct. But the expression *ens per accidens* is not used in that sense by the scholastics. Therefore, if you cannot use the explanation which I suggested in a previous letter—and I see that in your latest paper you have departed from it in some degree, and not altogether avoided the hazards—then it is much better to admit openly that you misunderstood this scholastic expression than to try unsuccessfully to cover the matter up. You should say that fundamentally you agree with the others and that your disagreement with them was merely verbal. And whenever the occasion arises, in public and in private, you should give out that you believe that a human being is a true *ens per se*, and not an *ens per accidens*, and that the mind is united in a real and substantial manner to the body. You must say that they are united not by position or disposition as you assert in your last paper—for this too is open to objection and, in my opinion, quite untrue—but by a true mode of union, as everyone agrees, though nobody explains what this amounts to, and so you need not do so either. (AT III 492–3; CSMK 206)

Nevertheless, in the rest of the letter Descartes drafts a response for Regius, where he makes it clear that he thinks it is appropriate to refer to a human being as an *ens per accidens*, provided we understand that expression in the appropriately relativized sense:

> We affirm that human beings are made up of body and soul, not by the mere presence or proximity of one to the other, but by a true substantial union. (For this there is indeed a natural requirement, on the bodily side, of an appropriate positioning and arrangement of the various parts; but nevertheless the union is different from mere position and shape and the other purely corporeal modes, since it relates not just to the body but also to the soul, which is incorporeal.) The idiom which we used is perhaps unusual, but we think it is sufficiently apt to express what we meant. When we said that a human being is an *ens per accidens*, we meant this only in relation to its parts, the soul and the body; we meant that for each of these parts it is in a manner accidental for it to be joined to the other, because each can subsist apart, and what can be present or absent without the subject ceasing to exist is called

> an accident. But if a human being is considered in himself as a whole, we say of course that he is a single *ens per se*, and not *per accidens*; because the union which joins a human body and soul to each other is not accidental to a human being, but essential, since a human being without it is not a human being. (AT III 508; CSMK 209)

The picture that emerges from these two letters is as follows. The relativization of the notion of being an *ens per accidens* in the letters to Regius is the complement of the earlier relativization of the notion of completeness in the reply to Arnauld. When the parts of a composite are complete (when considered) in themselves because they can subsist by themselves, the composite is an *ens per accidens* (when considered) in relation to those parts.[13] In both the reply to Arnauld and the letters to Regius, it appears that the notion of the parts being complete in themselves is the fundamental notion and the notion of the whole being an *ens per accidens* is defined by means of it.

Similarly, the relativization of the notion of being an *ens per se* in the letters to Regius is the complement of the relativization of the notion of incompleteness in the reply to Arnauld. If the composite whole is an *ens per se* (considered) in itself, then its parts are incomplete (considered) in relation to the whole. However, there are some subtle but revealing variations in the reply to Arnauld and the letters to Regius that have to do with the order of explanation. That is, there are different accounts of which notion is fundamental and which is derivative—that of the parts being incomplete or that of the whole being an *ens per se*. In the first letter to Regius, Descartes suggests that the fundamental notion is that of the parts being incomplete in their very nature, from which it follows that the whole that they compose is an *ens per se*. In the reply to Arnauld, the explanation seems to go the other way: since what body and mind constitute is one *per se*, it follows that they are incomplete in relation to it. In the second letter to Regius, it appears that the fundamental notion is that of the union of the parts being essential to the composite whole, from which it is inferred that the whole is an *ens per se*.

At stake here is what Descartes thinks justifies the claim that a human being is an *ens per se*. Is it just something Descartes thinks we should take for granted, as I argued in the earlier essay and as is suggested by the reply to Arnauld? Do we start instead with the idea that the union of mind and body is essential to the whole, as is suggested by the second letter to Regius? Or do we start with the idea that mind and body do not have natures that are complete in themselves, as is suggested by the first letter to Regius?[14]

I will not try to settle just yet the issue of whether Descartes thinks one of these notions is more fundamental than the others, though my view will emerge. However, it is worth noting now that if the notion of the parts being incomplete in their nature is fundamental and the notion of being an *ens per se* is defined in terms of it, then it follows that the incompleteness of the part is not defined by its relation

to the whole. Instead, Descartes is using two distinct notions of incompleteness that are determined solely by consideration of the part. In one sense of incompleteness, a part is incomplete if and only if it cannot subsist *per se* (considered) alone. In the other sense of incompleteness, a part is incomplete if and only if considered by itself alone its nature is not complete.

That Descartes would say that mind and body are incomplete in their nature, although they are complete in the sense that they can subsist by themselves, resonates with his comparison in the reply to Arnauld of the mind with the hand and reinforces the claim that the notion of what it is to be a complete substance at work in the real distinction argument is very weak. A substance that is complete in the sense that it can subsist *per se*, such as a hand, need not be complete in its nature. And so it does not follow from the fact that mind has a nature that determines a complete substance, that is, something that can subsist *per se*, that the mind is complete in its nature. That the notion of completeness at stake in the real distinction argument is a very weak notion is brought out nicely in another passage later in the reply to Arnauld:

> Now someone who says that a man's arm is a substance that is really distinct from the rest of his body does not thereby deny that the arm belongs to the nature of the whole man. And saying that the arm belongs to the nature of the whole man does not give rise to the suspicion that it cannot subsist *per se*. (AT VII 228; CSM II 160)

Descartes's point here is that a thing's being able to subsist *per se* does not entail that it is not part of the nature of a whole. If something is part of the nature of a whole, and we take this to mean that it is a fact about the nature of the part that the part is part of the nature of the whole (as seems true of an arm or a hand), then it seems perfectly plausible to say that its nature is incomplete (even though it is complete in the sense of being able to subsist *per se*). I will discuss this point more fully later.

How does the relativization that enables Descartes to assert without contradiction that a composite substance is both an *ens per se* and an *ens per accidens* compare to the relativization that allows him to assert without contradiction that a composite figure both contains and does not contain a true and immutable nature? Let me mention two differences. First, the relativization pertaining to figures is in regard to different sets of properties (or to our consideration of different sets of properties), but the relativization pertaining to composite substances is not in regard to different sets of properties. It is interesting, however, that later, in the *Principles*, Descartes does draw a distinction that would enable him to relativize the notion of being an *ens per se* in exactly the same way he relativizes the notion of containing a true and immutable nature.

He distinguishes those characteristics that arise from the mind alone and from the body alone from those that arise from the union of mind and body, namely, appetites like hunger and thirst, passions that do not consist in thought alone, and

sensations (AT VIIIA 23; CSM I 209). Thus he might have said that a human being is an *ens per se* in relation to those characteristics (or when considered for the purposes of examining those characteristics) that arise from the union of mind and body.

Second, Descartes does not introduce a notion applicable to the parts of a composite figure having a true and immutable nature that corresponds to the notion of incompleteness that pertains to the parts of a composite substance having *per se* unity. That is, once Descartes points out that a triangle inscribed in a square has a true and immutable nature, he does not also assert that there is a sense in which the natures of a triangle and a square are incomplete. But there seems to be no obstacle to such a notion. It seems perfectly plausible to say that the nature of a triangle is incomplete in relation to the nature of a triangle inscribed in a square.

What is the significance of these differences? My intuition is this. It seems to me that given Descartes's purpose in introducing the notion of true and immutable natures—to provide an ontological grounding for the certainty of our inferences about which characteristics we can attribute to things—he can allow that every composite has a true and immutable nature. But given his purpose in introducing the notion of having *per se* unity—to provide an account of which composites are truly one and which are mere aggregates—he might not want to allow that every composite that is complete in the sense that it can subsist *per se* has *per se* unity. If he were to relativize the notion of an *ens per se* to (consideration of) the properties that arise from the union of the parts, then it would seem to me to follow that every composite of substances would be an *ens per se*. It is worth noting that Descartes's account of the *per se* unity of a human being in the second letter to Regius provides some evidence that Descartes was willing to allow that every composite whose parts can subsist *per se* is an *ens per se*. It seems true of every composite whole that the union of the parts is essential to it. We will return to this issue later.

We are now in a position to respond to objections to my claim that Descartes believes a human being has *per se* unity. Marleen Rozemond argues that even though Descartes says that a human being is an *ens per se* because mind and body are incomplete, he does not mean what his scholastic predecessors mean in saying that soul and body are incomplete. She offers three related arguments in support of this assertion. First, in contrast to the scholastics, Descartes thinks that mind and body are complete when considered on their own.[15] Second, the scholastics think that soul and body are incomplete by their very nature, that it is part of their essence to belong to a composite, whereas Descartes does not.[16] Third, unlike the scholastics, Descartes does not think that the mind has an aptitude for union with the body in the sense that the scholastics think it did.[17] Rozemond concludes from the fact that Descartes does not think that mind and body are incomplete in the appropriate scholastic sense that he does not really think that a human being has *per se* unity in any robust sense.

One of the key passages she cites in support of her interpretation is the continuation of Descartes's first letter to Regius:

> It may be objected that it is not accidental to the human body that it should be joined to the soul, but its very nature; since, when a body has all the dispositions required to receive the soul, without which it is not a human body, it cannot be without a miracle that the soul is not united to it. And also that it is not accidental to the soul to be joined to the body. All these things should not be denied in every respect, so that the theologians are not again offended. But it must be responded nevertheless that those things can be said to be accidental because, when we consider the body alone we simply perceive nothing in it because of which it desires to be united to the soul; just as we perceive nothing in the soul because of which it must be united with the body; and for this reason I said a little earlier that it is in some sense accidental, but not absolutely accidental. (AT III 460–1; CSMK 200)[18]

She places special emphasis on the fact that Descartes says "when we consider the body alone we simply perceive nothing in it because of which it desires to be united to the soul; just as we perceive nothing in the soul because of which it must be united with the body."[19]

The first point I want to make in response is that it is false that all the leading scholastics deny that the soul is complete when considered on its own. Aquinas himself asserts in his *Questions on the Soul* that the soul subsists *per se* because it has a *per se* operation, and moreover, in response to the objection that the soul is united to the body accidentally, he concedes that the soul has complete being.[20] Aquinas also says that the soul separated from the body has perfect being.[21] The notions of being complete and perfect were apparently used interchangeably by Aquinas, as they were by Regius.[22] Thus Descartes is really endorsing fundamentally Thomistic views in claiming that the mind is a complete thing in the sense of being capable of subsisting *per se*. Descartes, like Aquinas, is what we might call a subsistence dualist.[23]

The second point is that while Rozemond is right to emphasize Descartes's assertion in the reply to Arnauld that it is not properly of the essence of mind that it be united to the body (AT VII 219; CSM II 155), he might not mean by this anything inconsistent with his endorsement of Regius's assertion that the mind is an incomplete substance by its very nature. Let me elaborate by building on some helpful terminology Rozemond has used in correspondence. We can distinguish between (1) the nature or essence of A demanding union with B, and (2) the nature or essence of A calling for union with B. If the nature of A demands union with B, then it is impossible for A to exist without being united to B. If the nature of A only calls for union with B but does not demand it, then it is natural or proper for A to be united to B, but A can still exist without being united to B. Rozemond maintains that Descartes's point, in asserting that it is not properly of the essence of the mind

that it be united to the body, is that the nature of the mind does not call for union with the body, which she thinks is inconsistent with the mind being incomplete in its very nature on account of its relation to the body.

By drawing a further distinction between a weaker and a stronger sense of calling for union, I think Descartes can be defended against the charge of inconsistency or insincerity in asserting that it is not properly of the essence of the mind that it be united to the body while endorsing Regius's view that the mind is incomplete by its very nature. The distinction between the strong and weak senses is as follows. The nature of A calls for union with B in the strong sense if A cannot be defined without reference to B. The nature of A calls for union with B in the weak sense if A can be defined without B. I cannot think of any noncontroversial examples to illustrate this distinction, so let me instead rely on different hypothetical views someone might take who thinks that a hand does not demand union with the whole body. One might maintain that even though a hand does not demand union with the whole body, it still cannot be defined independently of a human body. Alternatively, one might maintain that even though it is natural and proper for a hand to be united to a human body, not only does it not demand union with a human body but it can be defined independently of the human body.

When Descartes asserts that it is not properly of the essence of the mind that it be united to the body, he is surely implying at the very least that the mind does not demand union with the body. It also seems likely that he means to imply that the mind can be defined independently of the human body. So it seems right that Descartes thinks the mind does not call for union with the body in the strong sense. But there is still room for Descartes to maintain that the mind does call for union with the body in the weak sense; in other words, he can still maintain that it is natural or proper for the mind to be united to the body. And if that is what Descartes means when he endorses Regius's view that the mind is incomplete by its very nature, then his remarks are not inconsistent. (In the passage Rozemond quotes from the first letter to Regius, Descartes grants for the sake of avoiding controversy that the soul by its very nature is united to the body and that it can exist apart from the body only by a miracle. This suggests a possible further distinction between two sorts of demand. The nature of A might demand$_1$ union with B if it is impossible for A to exist without being united to B, or it might demand$_2$ union with B if it can exist without being united to B only by a miracle. Descartes apparently is prepared to concede for the sake of avoiding controversy that the mind demands$_2$ union with the body, even though he himself thinks that the mind does not demand$_1$ union with the body. To say that the mind demands$_2$ union with the body amounts to saying that it calls for union with the body.)

Here, again, I think Descartes's views are similar to those of Aquinas. Since Aquinas also thinks that the fact that the soul can exist apart from the body gives it complete being, he can't think the soul demands$_1$ union with the body. Nevertheless, like Descartes, he still thinks that the soul remains incomplete in another sense. It is

not an individual in the genus of substance because it does not have through itself the complete nature of a species.[24] To be sure, Descartes does not talk of complete species in the way Aquinas does. However, Aquinas, like Descartes, also compares the soul to the hand to illustrate the sense in which the soul is incomplete. Aquinas maintains that the hand is a substance because it subsists *per se* in the weak sense of not inhering in anything in the way an accident or material form does.[25] But neither the soul nor the hand subsists *per se* in the strong sense because they are parts and do not have a complete species through themselves. So the situation is that Aquinas and Descartes both compare the soul to the hand to illustrate how the soul subsists *per se* in one sense of the term, but Aquinas provides a theoretical structure missing in Descartes—the notion of having a complete species—to explain the sense in which the soul and the hand are incomplete. That is, the reason the nature of the soul calls for union with the body is that the soul does not have through itself the complete nature of some species. What should we make of this difference?[26]

One response would be to infer that Descartes must be making implicit use of the notion of complete species to justify his agreement with Aquinas. That is, Descartes must also think that a human being has a complete species in a way that the mind does not to back up his claim that the mind is incomplete in its nature. This would imply that Descartes thinks a human being is a more robust substance than a mind, because it is complete in a way a mind is not. It would also have the further implication that when he says that a human being is an *ens per se* he would mean something stronger than when he says that a mind is an *ens per se*, for a mind is an *ens per se* only in the weak sense that it can exist apart from a subject.

Even on this first response, there would remain some important differences between the views of Descartes and Aquinas. In asserting that the soul does not have the complete nature of a species, Aquinas seems to be asserting that the soul calls for union with the body in the strong sense, that the soul cannot be defined independently of the body. But Descartes, at most, would seem to be committed to the view that the soul calls for union with the body in the weak sense. In other words, Descartes's view would be that a human being has a complete species in the way a mind fails to because it is natural and proper for a mind to be united to something else, whereas it is not natural and proper for a human being to be united to something else.

A second response would be the opposite—to deny that Descartes is making use of a notion of complete species. Certainly there is reason to think that Descartes's physics involves the rejection of the notion of complete species as it pertains to bodies. One can easily read him as supposing that bodies can be compounded without limit into larger and larger bodies that still count as individual substances (AT VIIIA 53–4; CSM I 233). So one might try to argue that Descartes thinks that something can be incomplete in relation to a whole that is an *ens per se*, even if that whole does not have a nature that is complete in its species. This would imply that the whole in relation to which the parts are incomplete need not

be more robust in its being than the parts themselves. And in this respect, there would be a significant point of dissimilarity between Descartes and Aquinas—for Aquinas does think that a human being is more robust in its being than a soul precisely because a human being does have a nature that is complete in its species and a soul does not. But so long as Descartes is read as holding that a human being is no less a substance than a soul, I would argue that their views are more similar than dissimilar.

If this is Descartes's view, then it would seem that he cannot be using the notion of the parts being incomplete in their nature as fundamental. Nothing in his physics suggests that any body calls for union with any other body. Instead, he must be starting the other way around. That is, instead of defining the completeness of the whole in terms of the incompleteness of the parts, he would have to be defining the incompleteness of the parts in relation to the whole. So we identify certain bodies as complete—for example, planets—and infer from this that their parts are incomplete in relation to them. Furthermore, this second response suggests that Descartes does not use the notion of an *ens per se* to mean anything stronger than the weak notion of being able to exist apart from a subject. Thus, any aggregate of substances would be an *ens per se*.

Both of these responses have merit even though they pull in opposite directions. They reflect what I consider to be a deep tension in Descartes's philosophy that arises on one side from his attempt to preserve the commonsense Aristotelian conception of a human being and on the other side from the implications of his new account of body. If we emphasize the first line of thought, then a human being is a more robust substance than a mind because it is not incomplete with respect to anything else, and not every aggregate of substances is a composite *ens per se*. If we emphasize the second line of thought, then a human being, while still a substance, need be no more robust a substance than a mind, and all aggregates of substances are *entia per se*.

My third point in response to Rozemond is that she is not justified in discounting the passage (that had not before caught my attention) in which Descartes in defending Regius asserts that he did not deny that the mind and body have a natural aptitude to substantial union:

> they [the proponents of the thesis that the union of mind and body arises *per accidens*] did not deny the substantial union by which mind and body are conjoined nor a natural aptitude of each part to that union, as was clear from the fact that immediately afterwards they added: "those substances are called incomplete by reason of the composite which arises from their union." (AT VII 585; HR II 363).[27]

She discounts this passage on the ground that since Descartes supports his view that they did not deny the natural aptitude for union by pointing to the claim that mind and body are incomplete, whether he really agrees with the scholastics

depends on whether they have the same account of incompleteness. She maintains that they do not, because she argues that Descartes thinks mind and body are incomplete only in the sense that both are needed to constitute a human being. She bases her interpretation of Descartes's account of incompleteness on the second letter to Regius, where, as we have already seen, Descartes asserts that a man considered in himself has *per se* unity because the union of mind and body is essential to the man.[28]

I agree that the account of *per se* unity in the second letter to Regius does not provide evidence in favor of the more robust account of incompleteness I have attributed to Descartes. It does not follow from the claim that the union of mind and body is essential to the man that mind and body are incomplete in their nature. However, this passage does not conflict with the passage from the first letter to Regius, which Rozemond does not take into account, in which Descartes does assert that mind and body by their very nature are incomplete substances.[29] If Descartes believes mind and body are incomplete substances by their nature, he might well believe that they have a natural aptitude to be united, even if their natures do not demand$_1$ that they be united. Again, this sounds very much like Aquinas's account of the soul.

Finally, the fact that Descartes does not think the body has a desire to be united to the soul should not be construed as evidence that he thinks it has no aptitude to be united to the soul. Desires are one thing, natural aptitudes another.

Vere Chappell argues that a human being cannot be an *ens per se*, because Descartes says that mind and body are one and the same thing only by a unity of composition and not by a unity of nature.[30]

> Notice that if we have different ideas of two things, there are two ways in which they can be taken to be one and the same thing: either in virtue of the unity or identity of their nature, or else merely in respect of unity of composition. For example, the ideas which we have of shape and of motion are not the same, nor are our ideas of understanding and volition, nor are those of bones and flesh, nor are those of thought and of an extended thing. But nevertheless we clearly perceive that the same substance which is such that it is capable of taking on a shape is also such that it is capable of being moved, and hence that which has shape and that which is mobile are one and the same in virtue of a unity of nature. Similarly, the thing that understands and the thing that wills are one and the same in virtue of a unity of nature. But our perception is different in the case of the thing that we consider under the form of bone and that which we consider under the form of flesh; and hence we cannot take them as one and the same thing in virtue of a unity of nature but can regard them as the same only in respect of unity of composition—i.e. in so far as it is one and the same animal which has bones and flesh. But now the question is whether we perceive that a thinking thing and an

> extended thing are one and the same by a unity of nature. That is to say, do we find between thought and extension the same kind of affinity or connection that we find between shape and motion, or understanding and volition? Alternatively, when they are said to be 'one and the same' is this not rather in respect of unity of composition, in so far as they are found in the same man, just as bones and flesh are found in the same animal? The latter view is the one I maintain, since I observe a distinction or difference in every respect between the nature of an extended thing and that of a thinking thing, which is no less than that to be found between bones and flesh. (AT VII 423–4; CSM II 285–6)

My response to this objection is that the conclusion follows only on a controversial understanding of what Descartes means by a unity of nature. If in denying that mind and body are one by a unity of nature Descartes were denying that the natures of mind and body can be united or joined, then the conclusion would follow. It would follow because the condition for the *per se* unity of a composite C constituted by A and B is that A and B are incomplete in their very nature, which suggests that the natures of A and B can be united or joined. But I don't think this is what Descartes means in denying that mind and body are one by a unity of nature. I think his point is instead that mind and body do not have the same nature. And there is no contradiction in asserting both that A and B do not have the same nature and that A and B are incomplete in their natures. On this understanding, Descartes can consistently assert both that mind and body are not one and the same by a unity of nature and that a human being is an *ens per se*.

Once again, Descartes's examples are helpful. The examples of things that have a unity of nature are all modes of the same attribute. This suggests that to have a unity of nature is to have the same nature. His example of a unity of composition is an animal composed of flesh and bones. By inviting us to suppose that an animal is a unity of composition, Descartes is thereby inviting us to suppose that flesh and bones do not have the same nature. Of course, this is not something he believes, since he thinks all extended things have the same nature. But since flesh and bones are incomplete in the same sense that a hand or arm is incomplete, the example serves to illustrate the point that things we suppose to have different natures can still be incomplete and hence can constitute something that is an *ens per se*.

Chappell also objects that a human being cannot be an individual substance because Descartes is committed to the principle that every finite substance has exactly one principal attribute or essence.[31] This principle also plays a fundamental role in Rozemond's interpretation of Descartes, for she maintains that it is the crucial premise in Descartes's argument for the real distinction between mind and body.[32] Once we see that thought is a principal attribute and that extension is a principal attribute, it follows that mind and body are distinct substances.

Descartes does appear to endorse such a principle in a prominent passage in the *Principles*, part I:

> 53. To each substance there belongs one principal attribute; in the case of mind, this is thought, and in the case of body it is extension.
>
> A substance may indeed be known through any attribute at all; but each substance has one principal property which constitutes its nature and essence, and to which all its other properties are referred. Thus extension in length, breadth and depth constitutes the nature of corporeal substance; and thought constitutes the nature of thinking substance. (AT VIIIA 25; CSM I 210)

Nevertheless, it is my conviction that it is one of the most serious mistakes of contemporary Cartesian scholarship that this passage is taken to endorse the principle that no substance can have more than one principal attribute. That interpretation is called into question by a fuller explanation of attributes in the *Comments on a Certain Broadsheet*:

> As for the attributes which constitute the natures of things, it cannot be said that those which are different, and such that the concept of the one is not contained in the concept of the other, are present together in one and the same subject; for that would be equivalent to saying that one and the same subject has two different natures—a statement that implies a contradiction, at least when it is a question of a simple subject (as in the present case) rather than a composite one. (AT VIIIB: 349–50; CSM I 298)

Here Descartes makes it clear that he believes even a simple subject can have two or more attributes of the sort that constitute the natures of things. This can happen when the concept of one is contained in the concept of the other. So it can't be a basic metaphysical principle that no simple subject can have more than one attribute of the sort that constitute the natures of things. The true metaphysical principle is that no simple subject can have more than one attribute of the sort that constitutes the natures of things when their concepts are independent.[33] Moreover, this passage makes it clear that Descartes thinks it is true only of simple subjects that they can have only one principal attribute conceived independently of other attributes. Composite subjects can have more than one such principal attribute, and I see no good reason for thinking that such a composite subject is not a substance, provided that it has *per se* unity of the sort I analyze in this essay.

In claiming that the *Principles* passage is superseded by the *Comments* passage, I am not claiming that the two passages cannot be reconciled. I think the *Principles* passage reflects Descartes's view that as a matter of fact the simple substances created by God have one principal attribute. The mistake is to read it as implying that it is some sort of metaphysical truth that there can be no simple substance that has more than one principal attribute. Indeed, I am tempted to ascribe to Descartes the

view that God is a simple substance with more than one principal attribute, none of which can be conceived independently of the others.

In conclusion, I have tried to explain and defend Descartes's strategy of relativization to justify seemingly contradictory assertions: that a triangle inscribed in a square both does and does not contain a true and immutable nature, that the mind is both complete and incomplete, and that a human being is both an *ens per accidens* and an *ens per se*. The fact that Descartes applies this strategy in all three of these cases requires us to take it seriously. The most significant result is that Descartes's account of the sense in which soul is complete and the sense in which it is incomplete is very similar to that of Aquinas. A soul is complete in the same sense that a hand is complete, and it is incomplete in the same sense that a hand is incomplete. And the solution to my worry of several years ago is that in saying that a human being is an *ens per accidens*, Descartes is not denying that it is an *ens per se*, but rather asserting the familiar scholastic view that it can have constituents that can subsist *per se*.[34]

3

Descartes's Theory of Distinction

I would like to raise and to attempt to answer some questions that will help us understand Cartesian dualism. These questions shed light on what Descartes means in asserting that mind and body are really distinct and on his argument for that conclusion. Real distinction between mind and body is my primary interest, and I will be defending an interpretation that is consistent with the claim I have made elsewhere that Descartes thinks the composite of mind and body is itself one substance.[1] But I have broader interests as well. Real distinction is only one of three kinds of distinction recognized by Descartes, the others being modal distinction and rational distinction. The first group of questions I will raise concerns Descartes's entire theory of distinction. They involve the relations among the notions of distinctness, separability, number, and non-identity. I believe that they reveal that his theory of distinction as a whole merits more attention than it has received.

Let me begin with the following question: are the three kinds of distinction recognized by Descartes—real distinction, modal distinction, and rational distinction or distinction of reason—intended to be mutually exclusive and jointly exhaustive in the sense that for any things A and B, A and B are either really distinct, modally distinct, or rationally distinct?

For a long time I believed and argued in my courses that the answer to this question was yes. For it seemed to me that Descartes saw his distinctions as a way of exclusively and exhaustively carving up logical space. That is, I thought that Descartes's distinctions were founded on and justified by appeal to three different conceptual possibilities that correspond to three different metaphysical possibilities. The first conceptual possibility is that A can be clearly and distinctly conceived without B and that B can be clearly and distinctly conceived without A. In the *Principles*, part I, article 60, Descartes says, "Strictly speaking, a real distinction exists only between two or more substances; and we can perceive that two substances are really distinct simply from the fact that we can clearly and distinctly understand one apart from

the other" (AT VIIIA 28; CSM I 213). The metaphysical possibility corresponding to this conceptual possibility is that A can exist without B and that B can exist without A. In the *Geometrical Exposition* in the *Replies to the Second Objections*, Descartes defines real distinction as follows: "Two substances are really distinct when each of them can exist without the other" (AT VII 162; CSM II 114).

That Descartes thinks we can infer the metaphysical possibility from the conceptual possibility is made clear from his argument for a real distinction between mind and body, which proceeds by inferring the metaphysical possibility of mind and body existing without each other from the corresponding conceptual possibility of our clearly and distinctly conceiving each without the other. Thus in introducing his first argument for real distinction in the *Sixth Meditation*, he asserts:

> since I know that everything which I clearly and distinctly understand is capable of being created by God such as I understand it, it is sufficient that I can clearly and distinctly understand one thing without another to be certain that one is diverse from the other, since they can be posited separately at least by God. (AT VII 78; CSM II 54)

And in the *Replies to the Second Objections*, Descartes explains that we can have evidence of the metaphysical possibility of two substances existing apart only by means of our access to what is conceptually possible:

> Do you claim that if we clearly understand one thing apart from another this is not sufficient for the recognition that the two things are really distinct? If so, you must provide a more reliable criterion for a real distinction—and I am confident that none can be provided. What will you suggest? Perhaps that there is a real distinction between two things if one can exist apart from the other? But now I will ask how you know that one thing can exist apart from another. You must be able to know this, if it is to serve as the criterion for a real distinction. . . . The sole possible source of such understanding is that we perceive one thing apart from another, and such understanding cannot be certain unless the idea of each thing is clear and distinct. So if the proposed criterion for a real distinction is to be reliable, it must reduce to the one which I put forward. (AT VII 132; CSM II 95)

The second conceptual possibility is that A can be clearly and distinctly conceived without B but that B cannot be clearly and distinctly conceived without A. The corresponding metaphysical possibility is that A can exist without B but that B cannot exist without A. Alternatively, B can be clearly and distinctly conceived without A, but A cannot be clearly and distinctly conceived without B, and correspondingly B can exist without A, but A cannot exist without B. In either of these cases, Descartes would say that A and B are modally distinct. In the *Principles*, part I, article 61, Descartes asserts that "the first kind of modal distinction can be recognized from the fact that we can clearly perceive a substance apart from the mode which we say

differs from it, whereas we cannot, conversely, understand the mode apart from the substance" (AT VIIIA 29; CSM II 214).

Finally, the third conceptual possibility is that A cannot be clearly and distinctly conceived without B and B cannot be clearly and distinctly conceived without A. The corresponding metaphysical possibility is that A cannot exist without B and B cannot exist without A. In this case, Descartes would say that A and B are distinct by reason or rationally distinct. In the *Principles*, part I, article 62, he says, "Such a distinction is recognized by our inability to form a clear and distinct idea of the substance if we exclude from it the attribute in question, or, alternatively, by our inability to perceive clearly the idea of one of the two attributes if we separate it from the other" (AT VIIIA 30; CSM I 214).

Since these conceptual and metaphysical possibilities seem to exhaust logical space, it would seem to follow that Descartes sees his three kinds of distinction as mutually exclusive and jointly exhaustive. That is, at the conceptual level, for any things A and B, both can be conceived clearly and distinctly without the other, exactly one can be clearly and distinctly conceived without the other, or neither can be clearly and distinctly conceived without the other. At the metaphysical level, for any things A and B, each can exist without the other, exactly one can exist without the other, or neither can exist without the other. There is, of course, an important complication arising from the fact that Descartes recognizes a second sort of modal distinction according to which even if A and B can both be clearly and distinctly conceived without the other, they are modally distinct if neither can be conceived without some third thing C (AT VIIIA 29; CSM I 214). Given that Descartes thinks that mind and body cannot be clearly and distinctly conceived apart from God, in order to preserve his view that mind and body are not modally distinct in this second sense but rather really distinct, he would have to argue, first, that there is more than one way things can be conceptually and metaphysically dependent on something else, and second, that the sort of dependence mind and body have on God does not undermine the claim that they are really distinct.

Even with this complicating factor, it still initially seemed true on this picture that the various kinds of distinction were intended to be jointly exhaustive. It also seemed that they were mutually exclusive, provided we assume what seems implicit in Descartes's account of real distinction, that when A and B are really distinct there is no third thing C to which they both are related in the way things modally distinct in the second sense are related. But I now think this way of looking at things is not quite right. I now believe that Descartes is better understood as thinking that there are cases in which A and B are not distinct in any of the three ways—they are not really distinct, modally distinct, or rationally distinct. So I used to think that Descartes would say that A is rationally distinct from A, because A cannot be clearly and distinctly conceived apart from A and A cannot exist apart from A. But now I think Descartes would say that A is not distinct from A. There is not even a rational distinction between A and A, between a thing and itself.

This may seem like a trivial matter, but it suggests that we should understand Descartes to maintain not that for any things A and B, A and B are really distinct, modally distinct, or rationally distinct, but rather that for any two things A and B, A and B are really distinct, modally distinct, or rationally distinct. This interpretation is supported by Descartes's introduction of his theory of distinction in the *Principles*, part I, article 60, when he says, "Now number, in things themselves, arises from the distinction between them. But distinction can be taken in three ways: as a real distinction, a modal distinction, or a distinction of reason" (AT VIIIA 28; CSM II 213). I take Descartes to be implying here that whenever things are distinct in one of the three ways, they are not numerically the same. And if they are not numerically the same, then they are not identical (in the sense of identity that means not numerically the same, as opposed to the sense that means not exactly alike). However, this leads us to some vexing textual and philosophical questions about distinctness, separability, number, and non-identity.

There is an important passage in the correspondence that can easily be read as showing that I am wrong to claim that things distinct by reason are not numerically the same. In explaining his distinction of reason in a letter to an unknown correspondent, Descartes asserts:

> It seems to me that the only thing which causes difficulty in this area is the fact that we do not sufficiently distinguish between things existing outside our thought and the ideas of things, which are in our thought. Thus, when I think of the essence of a triangle, and of the existence of the same triangle, these two thoughts, as thoughts, even taken objectively, differ modally in the strict sense of the term 'mode'; but the case is not the same with the triangle existing outside thought, in which it seems to me manifest that the essence and existence are in no way distinct. The same is the case with all universals. Thus, when I say Peter is a man, the thought by which I think of Peter differs modally from the thought by which I think of man, but in Peter himself being a man is nothing other than being Peter. (AT IV 350; CSMK 280–1)

Here Descartes implies that *some* things that are distinct by reason are in no way distinct outside our thought, and he might well be construed to be implying that *all* things that are distinct by reason are in no way distinct outside our thought. To say that A and B are in no way distinct could be interpreted strongly, as it has in a series of essays by Larry Nolan, to mean that A is identical with B.[2] On Nolan's interpretation, things that are distinct by reason are therefore not two in reality. There is, however, another way of understanding Descartes's claim that existence and essence are in no way distinct outside our thought. It could be interpreted weakly to mean that A and B are inseparable outside of thought. That is, when Descartes says things are distinct he means that they are separable. So things that are in no way distinct outside of thought would be in no way separable outside of thought. But they need not be identical.

A similar ambiguity surrounds Descartes's assertion in the *Principles*, part I, article 63, that "[t]hought and extension can be regarded as constituting the natures of intelligent substance and corporeal substance; they must then be considered as nothing else but thinking substance itself and extended substance itself—that is, as mind and body" (AT VIIIA 30; CSM II 215). He might be interpreted, as Nolan interprets him, to be making the very strong assertion that thought is identical with the mind and extension is identical with the body. But he might instead be interpreted as making the weak assertion that thought and mind are inseparable and that extension and body are inseparable. It seems to me that it is much more plausible to read Descartes as making the weak assertion. First, he defines body as the subject not just of the modes of extension but of extension itself, and he seems to think of mind also as the subject not just of the modes of thought but of thought considered as constituting its essence (AT VII 161; CSM II 114). If A is the subject of B, but B is not the subject of A, I do not see how it could be plausible to maintain that A and B are identical. But it is plausible to say that A and B are inseparable. Second, on Nolan's reading, Descartes is also committed to saying that extension is identical with other attributes such as duration and existence. But this has the seemingly un-Cartesian implication that extension can be singled out as the principal attribute of body not as body is in reality but only as we conceive of body. Similarly, thought could be singled out as the principal attribute of mind not as mind is in reality but only as we conceive of mind.

Thus, in light of what I take to be infelicitous implications of taking Descartes when he asserts that things distinct by reason are in no way distinct outside our thought to mean that they are identical, I propose reading him more weakly as saying that they are inseparable. But now one might ask if distinctness amounts to separability, how can things that are distinct by reason be separable? The things that are distinct by reason are precisely those that cannot be clearly and distinctly conceived separately, so it would seem that they are not separable even in thought. The key to answering this question is to note that Descartes's view is that things distinct by reason are inseparable in thought only to the extent that they cannot be clearly and distinctly conceived separately. Descartes thinks they can be conceived separately, just not clearly and distinctly. So earlier in the same letter to the unknown correspondent, he says: "we do indeed understand the essence of a thing in one way when we consider it in abstraction from whether it exists or not, and in a different way when we consider it as existing, but the thing itself cannot be outside our thought without its existence, or without its duration or size, and so on" (AT IV 349; CSMK 280). So we can, by abstraction, think of the essence of the thing apart from its existence, and this is sufficient to make them distinct from each other in our thought, but since abstraction does not generate clear and distinct conceptions, and since essence and existence cannot be clearly and distinctly conceived apart, it follows that they are inseparable outside our thought.

Things are not as tidy as this proposed interpretation of the distinction of reason might suggest so far. First, Descartes does think that if we exclude existence we can still have clear and distinct ideas of any essence, except for God's essence. We can, for example, clearly and distinctly understand the essence of a triangle apart from existence. Descartes's point in the letter is rather that we cannot form a clear and distinct idea of the essence of a triangle *existing outside our thought* if we abstract from the idea of its existence. Thus I take Descartes's position to be that the idea of the essence of a triangle can be clear and distinct when considered in one way but not in another. The idea of the essence of a triangle considered in abstraction from whether or not it exists is clear and distinct apart from the idea of existence. But the idea of the essence of a triangle considered existing outside our thought is not clear and distinct considered apart from the idea of existence.

A second complication arises from Descartes's distinction in the *Principles*, part I, article 57, between two sorts of attributes: those that are in things and those that are only in thought. Time, understood as a measure of movement, is an example of an attribute that is only in our thought; duration is an example of an attribute that is in things. Number considered in general or in the abstract is also only in thought, as are all universals. Attributes that are only in our thought Descartes refers to as modes of thought (AT VIIIA 26–7; CSM I 212).

In his discussion of the distinction of reason in the *Principles*, Descartes allows that we can consider modes of thought as being in the objects themselves (AT VIIIA 30; CSM I 214). What I take Descartes to mean here is that something that is a mode of thought when it is considered in general or in abstraction can also be considered to be in the objects themselves. Such a thing would presumably be a particular when it is in an object. So we find in article 10 of part II of the *Principles* that Descartes contrasts extension considered in general, which is what he considers space to be, with the particular extension that belongs to each body (AT VIIIA 45; CSM I 227). Space, then, since it is just extension considered in general, is presumably, like time, just a mode of thought. Now I am tempted to take Descartes's point to be that space or internal place, considered in the object, is just the particular extension of that body. In other words, I am tempted to read him as saying that space or internal place, considered in the object, is identical to the particular extension of that body. By the same token, his point in the letter is that if we consider the universal "man" as being in a particular such as Peter, it just is the particular property of being Peter. On this interpretation, we might describe Descartes as holding a reductionist account of universals as they are outside of thought—they are just particulars. This reductionist interpretation seems more plausible than reading Descartes as saying that universals as they are in objects are merely inseparable from the particular properties.

So I am inclined to think that Descartes is best interpreted as treating different sorts of cases of rational distinction differently. In the case of attributes that are in objects, those that cannot be clearly and distinctly conceived apart are

inseparable in reality. In the case of attributes that are only in our thought, namely the universals, when we consider them in objects they are identical with the particular attributes in the object. The main problem with this interpretation is that Descartes himself sometimes talks as if he is treating the cases in the same way. So he seems to think that the relation between existence and essence (which on my reading is not identity) is the same as the relation between the universal man as it is considered in Peter and the particular property of being Peter (which on my reading is identity). But here I am inclined to say that Descartes's brevity in discussing the distinction of reason leads him to gloss over differences implied by his handling of different cases.

One might still wonder how Descartes thinks we should apply the concept of number to those particular attributes in objects (such as extension and existence) that are inseparable in reality. Should we say that in reality they are a plurality because they are not identical or should we say they are not a plurality but rather a unity because they are inseparable and thus constitute one thing? I have been tempted by both alternatives, but since Descartes, in illustrating the distinction of reason in article 62, provides as an example the distinction between two or more attributes of a single substance, neither of which can be conceived clearly apart from the other, and moreover, since he has indicated in article 60 that he is talking about number in the things themselves, I think he should be read as saying that such attributes are a plurality in reality. It would very misleading of him if he were using the number two here to refer not to number in the things themselves but to number as it is applied to things only in our thought.

In the letter to the unknown correspondent, Descartes suggests a criterion for determining which things are not distinct in any of the three ways and which are distinct in one of the three ways. If the idea of A does not differ objectively from the idea of B, then A and B are not distinct in any of the three ways. If the idea of A does differ objectively from the idea of B, then A and B are distinct in one of the three ways. Now most commentators interpret Descartes as maintaining that the objective reality of an idea is transparent to us. If this is correct, then it would seem to follow that we can tell right away for any things A and B whether or not they are distinct. Therefore, it would also seem to follow that in most cases it will be transparent to us whether or not A and B are identical in reality. The only exception I have acknowledged so far are cases in which A is something general (for example extension in general) and B is a particular (the extension of a particular body). Even though the objective reality of the idea of extension in general is different from the objective reality of the extension of a particular body, I have argued that Descartes thinks they are identical in reality.

This line of thought might tempt one to conclude that whenever A and B are particulars, it will be transparent to us whether or not they are identical and that the only remaining issue is what sort of distinction obtains between them. However, I think there are other important exceptions to this conclusion. First, I think Descartes

might allow that what exists objectively in an idea that is not clear and distinct might not be transparent to us. So I have argued elsewhere that he might allow that what exists objectively in the obscure idea we call the idea of yellow is some mode of extension that only appears to be yellow.[3] If so, then it could turn out that the obscure idea we call the idea of yellow is an idea of the very same thing as the idea of that mode of extension, even though that would not be transparent to us.

I do think, however, that Descartes believes that we cannot be mistaken about what is contained objectively in our clear and distinct ideas. So I believe it is safe to infer that Descartes thinks that for any attributes that exist in things, namely those that are particulars, it is self-evident to us when we clearly and distinctly conceive them whether or not they are identical. So once we form clear and distinct ideas of thought and extension, it is self-evident that they are numerically distinct attributes, and the difficult question that requires argument, or at least careful consideration, is which of the three kinds of distinction obtains between them. This interpretation finds support from the fact that Descartes never takes up the question of whether every mode of thinking is a mode of extension. This has been the crucial question in contemporary philosophy of mind, but for Descartes it never makes it to the table.[4]

One might well ask at this point whether on my interpretation Descartes also thinks it is self-evident that mind and body are not numerically the same and that the issue that needs to be determined is which kind of distinction—real, modal, or rational—obtains between them. Descartes thinks that we do not have cognitive access to mind and body directly, but only via their principal attributes, thought and extension (AT VII 222–3; CSM II 156: AT VIIIA 25; CSM I 210).[5] Having claimed that Descartes thinks it is self-evident that thought and extension are numerically distinct, it might seem to follow that it is equally self-evident that mind and body are numerically distinct. However, I believe that Descartes would say that if it turned out that thought and extension are only distinct by reason, that is, if it turned out that neither attribute could be conceived apart from the other, then instead of drawing the weak conclusion that their subjects are distinct by reason, that is, instead of drawing the weak conclusion that their subjects cannot exist apart from one another, we should draw the strong conclusion that they have the same subject. So in the case of mind and body, the subjects of thought and extension, instead of there being four possibilities, that they are really distinct, modally distinct, rationally distinct, or identical, there were only three possibilities. They could have turned out to be really distinct, modally distinct, or numerically the same substance, that is, identical.

Marleen Rozemond has recently argued that once Descartes establishes that mind and body are substances having different principal attributes, it follows right away that they are really distinct. She claims that this conclusion follows because Descartes is committed to the principle, which she calls the Attribute Premise, that a substance has only one principal attribute.[6]

Descartes does appear to endorse such a principle in a prominent passage in the *Principles*, part I, article 53:

> To each substance there belongs one principal attribute; in the case of mind, this is thought, and in the case of body it is extension.
>
> A substance may indeed be known through any attribute at all; but each substance has one principal property which constitutes its nature and essence, and to which all its other properties are referred. Thus extension in length, breadth and depth constitutes the nature of corporeal substance; and thought constitutes the nature of thinking substance. (AT VIIIA 25; CSM I 210)

Nevertheless, it is my conviction that this passage is superseded by a later passage, also cited by Rozemond, in which Descartes provides a fuller explanation of attributes. In the *Comments on a Certain Broadsheet*, Descartes asserts the following:

> As for the attributes which constitute the natures of things, it cannot be said that those which are different, and such that the concept of the one is not contained in the concept of the other, are present together in one and the same subject; for that would be equivalent to saying that one and the same subject has two different natures—a statement that implies a contradiction, at least when it is a question of a simple subject (as in the present case) rather than a composite one. (AT VIIIB 349–50; CSM I 298)

While I agree with Rozemond that this passage provides conclusive evidence that some version of the Attribute Premise plays a central role in Descartes's dualism, I would claim that it differs in fundamental ways from the version she ascribes to Descartes. First, Descartes makes it clear in this passage that he believes even a simple subject can have two or more attributes of the sort that constitute the natures of things. This can happen when the concept of one is contained in the concept of the other. So it cannot be a basic metaphysical principle that no simple subject can have more than one attribute of the sort that constitute the natures of things. Thus I would argue that the correct Attribute Premise is this: no simple subject can have more than one attribute of the sort that constitute the natures of things when their concepts are independent. Second, this passage makes clear that Descartes thinks it is true only of simple subjects that they can have only one principal attribute conceived independently of other attributes. Composite subjects can have more than one such principal attribute, and, as I have argued on other occasions, I think that Descartes conceives of such composite subjects as substances. This marks an important difference between Rozemond's interpretation and mine, because she denies that such composite subjects are substances. I think Descartes's use of the Attribute Premise looks less question begging if he allows that there are substances, namely human beings, that have both attributes thought and extension.

Stephen Yablo, for example, seems to think that the main objection to Descartes's argument for real distinction is precisely that he does not allow there to be things that are extended and thinking by nature.[7] My response is that Descartes thinks a human being is thinking and extended by nature.[8]

In claiming that the *Principles* passage is superseded by the *Comments* passage, I am not claiming that the two passages cannot be reconciled. I think that the *Principles* passage reflects Descartes's view that as a matter of fact the simple substances created by God have one principal attribute. But I think it is a mistake to read the *Principles* passage as implying that it is some sort of fundamental metaphysical truth that there can be no simple substance that has more than one principal attribute.

So on my reading of Descartes, once he has established that thought is the sort of attribute that constitutes the nature of its subject, mind, and that extension is the sort of attribute that constitutes the nature its subject, body, he still needs to show that these attributes can be clearly and distinctly conceived separately in order to show that mind and body are really distinct.

This leads to the main question I want to take up in this essay. In setting out his theory of distinction, Descartes repeatedly writes in terms of one thing being clearly and distinctly conceivable without another or of one thing being able to exist without another. Many, and I am tempted to say almost all, commentators take Descartes to mean by this that we are conceiving the one existing without the other existing and that the one thing can exist without the other existing.[9] So, for example, almost everyone takes Descartes to mean, or at least to imply, when he asserts that mind and body are really distinct that mind can exist without body existing and that body can exist without mind existing. But I want to claim that the notions of conceiving one thing without another and of one thing existing without another are ambiguous. They are subject to at least five possible interpretations. So, my question is, which of these possible interpretations provides the best interpretation of what Descartes means in asserting that mind and body are really distinct?

All five interpretations are suggested by things Descartes says, but I think it is possible that he himself failed to see that his writings suggest different interpretations. Nevertheless, I will be arguing that one interpretation best captures the notion of separability that Descartes has in mind in arguing in the *Meditations* proper that mind and body are really distinct. But the story is complicated by the fact that in response to objections, Descartes adds an important clarification of what is required for real distinction between mind and body, a clarification that amounts to requiring that mind and body are separable in another sense as well. So I will be arguing that real distinction between mind and body requires that they are separable in two of the five ways.

According to the first interpretation already mentioned, Descartes means that the mind can exist without the body existing and the body can exist without the

mind existing. So the notion of separate existence is, we could say, separate existence with respect to existence.

Francisco Suárez, one of Descartes's most important medieval predecessors, developed an elaborate theory of distinction, and he considered this notion of separate existence—the ability to exist without the other existing—to be one of two signs of real distinction.[10] Since Descartes was familiar with Suárez's work, this at least suggests that he might have had this interpretation in mind.

The main textual evidence for this interpretation in the *Meditations* is found the *Second Meditation*. The thought experiment he conducts there is to conceive a state of affairs in which no bodies exist and in which the mind does exist. So it seems that what we are clearly and distinctly conceiving is the mind existing without body existing.

If this is what Descartes means generally when he says things are really distinct, then it would follow that God is not really distinct from creatures but only modally distinct from them, and therefore, mind and body would also be modally distinct from each other in Descartes's second sense, according to which things are modally distinct if they can be clearly and distinctly conceived apart from each other but not from some third thing. But surely Descartes would not want this outcome.

A second interpretation is that mind can exist without a real union with body and body can exist without a real union with mind. This is Suárez's second sign of real distinction, which again provides some evidence that this is what Descartes might have in mind.[11] We might describe the sort of separability as separability with respect to union.

Again, there is some textual evidence in Descartes for this reading. Consider the modal distinction—when Descartes says that we cannot conceive of shape apart from substance, he does not mean merely that we cannot conceive of shape existing without the substance existing. He means that we cannot conceive of the shape existing without existing in the substance, that is, the shape must have a real union with the substance. At least one Aristotelian critic of Descartes, Pere J. B. de la Grange, understood Descartes's real distinction in this second sense.[12]

The second interpretation has an advantage over the first interpretation. On the first interpretation, it looks as if mind and body might be modally distinct in the second sense, but on the second interpretation, it works out the way it should. Although Descartes thinks neither mind nor body can exist without God existing, both can exist without a real union with God.

The third interpretation, as far as I know, has no historical antecedents, and at first may well seem to be coming from left field. But I want to claim that there is considerable textual evidence that, in the *Meditations* proper, what Descartes means when he says that mind and body are really distinct is that mind can exist without the essential attribute of body existing in it (hence without any of its modes) and that body can exist without the essential attribute of mind existing in it (hence

without any of its modes). We might characterize this sort of separability as separability with respect to attributes.

The textual evidence for this interpretation is provided by six passages in which Descartes tries to state or clarify his argument for real distinction in the *Meditations*. In these passages, he explains what it is to conceive mind and body clearly and distinctly without each other along the lines of this third interpretation. It is worth quoting all six of them because the repetition helps to reinforce the case that Descartes does think of separability in terms of the separability of attributes.

One nice passage from the Synopsis of the *Meditations* suggests that Descartes supposes at the outset of the *Second Meditation* that there are no bodies existing, not in order to establish that he can conceive himself existing without his body existing, but in order to establish that he can conceive of himself existing without the attributes of body:

> In the *Second Meditation*, the mind uses its own freedom and supposes the non-existence of all the things about whose existence it can have even the slightest doubt; and in so doing the mind notices that it is impossible that it should not itself exist during this time. This exercise is also of the greatest benefit, since it enables the mind to distinguish without difficulty what belongs to itself, i.e. to an intellectual nature, from what belongs to the body. (AT VII 12; CSM II 9)

A second is a passage from the *Replies to the Fourth Objections*:

> Now the mind can be perceived distinctly and completely (that is, sufficiently for it to be considered as a complete thing) without any of the forms or attributes by which we recognize that body is a substance, as I think I showed quite adequately in the *Second Meditation.* And similarly a body can be understood distinctly and as a complete thing, without any of the attributes which belong to the mind. (AT VII 223; CSM II 157)

The next passage is from the *Replies to the Fifth Objections*:

> Hence, when I discover that I am a thinking substance, and form a clear and distinct concept of this thinking substance that contains none of the things that belong to the concept of corporeal substance, this is quite sufficient to enable me to assert that I, in so far as I know myself, am nothing other than a thinking thing. This is all that I asserted in the *Second Meditation*, which is what we are dealing with here. (AT VII 354–5; CSM II 245)

The following passage is taken from Descartes's first argument for real distinction in the *Sixth Meditation*:

> on the one hand I have a clear and distinct idea of myself, in so far as I am simply a thinking, non-extended thing; and on the other hand I have a

> distinct idea of body, in so far as this is simply an extended, non-thinking thing. And accordingly, it is certain that I am really distinct from my body, and can exist without it. (AT VII 78; CSM II 54)

Still another passage comes from the *Replies to the Sixth Objections*:

> In fact I have never seen or perceived that human bodies think; all I have seen is that there are human beings, who possess both thought and a body. This happens as a result of a thinking thing's being combined with a corporeal thing: I perceived this from the fact that when I examined a thinking thing on its own, I discovered nothing in it which belonged to a body, and similarly when I considered corporeal nature on its own I discovered no thought in it. (AT VII 444; CSM II 299)

One final passage comes from the *Replies to the First Objections*:

> By contrast [with things that are modally distinct] I have a complete understanding of what a body is when I think that it is merely something having extension, shape and motion, and I deny that it has anything which belongs to the nature of a mind. Conversely, I understand the mind to be a complete thing, which doubts, understands, wills, and so one, even though I deny that it has any of the attributes which are contained in the idea of a body. This would be quite impossible if there were not a distinction between mind and body. (AT VII 121; CSM II 86)

In order to reach the conclusion that what Descartes means in saying that mind and body are really distinct is that each can exist without the essential attribute of the other, we need only to add the premise that the relevant metaphysical possibilities that define real distinction correspond to the conceptual possibilities. So if what we conceive is mind existing without the essential attribute of body, then the corresponding metaphysical possibility is that mind can exist without the essential attribute of body. And if what we conceive is body existing without the essential attribute of mind, the corresponding metaphysical possibility is that body can exist without the essential attribute of mind. I think this premise is justified by Descartes's assertion in the conceivability argument for real distinction in the *Sixth Meditation* that the inference from what is conceived to what is possible is justified by God's power to make things such as I clearly and distinctly understand them.

So I think there is strong textual evidence in favor of this third interpretation as capturing the sort of separability Descartes has in mind in the *Meditations* proper. Despite possible first impressions to the contrary, additional reflection reveals the intuitive plausibility of this interpretation. Something lacking the attribute extension is not a body and something lacking the attribute thought is not a mind. So to say that mind can exist without the attribute extension existing in it amounts

to saying that mind can exist without being a body; and to say that body can exist without the attribute thought existing in it amounts to saying that body can exist without being a mind.

Notice that this interpretation is considerably weaker than the first two: it would allow that mind and body are really distinct even if one of them requires the existence of the other in order to exist or even if one of them requires real union with the other in order to exist.[13] It is important to note that it does not require denying that Descartes believes that mind and body can exist without union with the other or without the other existing—it just requires denying that it is part of the meaning of saying mind and body are really distinct. But I do not necessarily even want to insist on this, because I think that Descartes himself was not entirely clear on the potential ambiguities in his account. What I do want to insist on, however, is that this third interpretation captures the heart of Cartesian substance dualism. It expresses the core thesis that reveals what is most powerful and interesting in Cartesian dualism, namely, that thought and extension are attributes that can exist without coexisting in the same subject. We can dispense with the stronger claims reflected by the first two interpretations as distractions from the core thesis.

One obvious objection to this interpretation is that it would seem to entail that individual minds are not really distinct from one another. Since all minds have thought as their principal attribute, no mind can be conceived without the principal attribute of any other mind. To respond to this objection, it is necessary to appeal to a distinction between attribute types and attribute tokens. Even though a mind cannot exist without the attribute type of other minds, it can exist without the attribute tokens of other minds. I think that this is an acceptable strategy, because I believe that Descartes follows Aristotle in thinking of all qualities, including modes and principal attributes, as particulars.[14] Nevertheless, this defense puts some pressure on the interpretation, because Descartes clearly means something stronger when he says that mind and body are really distinct. It is not just that my mind can exist without the attribute token of extension that constitutes the essence of my body, but it can exist without any attribute token of extension. Thus the interpretation has the undesirable outcome that when Descartes asserts that my mind is really distinct from your mind he is using a different notion of real distinction from the one he uses when he asserts that my mind is really distinct from my body. I do not what to downplay this shortcoming, but my strategy is to find the interpretation that is most plausible all things considered.

I noted earlier that in responding to objections, Descartes adds a further condition for real distinction between mind and body. In his *Replies to the First* and *Fourth Objections*, he argues that in order to establish that mind and body are really distinct, we need to show that we can clearly and distinctly conceive of them as complete things apart from each other. But what is it to be a complete thing? What sort of implications does it have for the notion of separability entailed in asserting that mind and body are really distinct?

In her book on Descartes, Margaret Wilson offers a reconstruction of the argument for real distinction according to which the notion of being a complete thing plays a crucial role in generating the conclusion that mind and body can exist apart from or in separation from each other. Although the terms 'apart from' and 'in separation from' are ambiguous in the same way as the term 'without,' her commentary suggests that what she means is that the mind can exist without the body existing and the body can exist without the mind existing.[15] Whether or not Wilson does in fact intend this strong conclusion, the more substantive issue is whether the notion of a complete thing in fact justifies the inference from the premise that mind and body can be conceived as complete things without the essential attribute of the other to the conclusion that mind and body are separable in the strong sense that each can exist without the other existing.

In the crucial *Replies to the Fourth Objections*, Descartes uses the terms 'complete thing,' '*ens per se*,' and 'substance' interchangeably, so to see if the inference goes through, we need to ask what is entailed in conceiving of something as a complete thing, substance, or *ens per se*.[16] The inference would go through if to conceive of something as a complete thing is to conceive it as existing without any other created thing existing. But I do not think this is what Descartes understood by a complete thing. I think Descartes's notion of a complete thing is a weaker notion. Indeed, he seems to make use of two different notions of separability in explaining what it is to be a complete thing or substance, and these provide our fourth and fifth notions of separability.

There is textual evidence that strongly suggests that Descartes understands a complete thing to be a thing that can exist without having to exist in something else as a subject. One piece of evidence comes from the term *ens per se*. The term *per* is one of the terms Descartes uses in the definition of substance to characterize the relation between a quality and a substance. So an *ens per se* is a being that exists "through" itself, that is, it does not need something else as a subject. Another piece of evidence is that he refers to modes as incomplete things (AT VII 120, 224; CSM II 85–6, 158), and modes are dependent because they must exist in a subject in order to exist.

Given that Descartes uses the terms 'substance,' 'complete thing,' and '*ens per se*' interchangeably, the most important evidence that a complete thing is merely a thing that can exist without having to exist in a subject is found in an argument he makes in the *Replies to the Sixth Objections* against what he calls real accidents. He asserts that "whatever is real can exist separately from any other subject, yet anything that can exist separately in this way is a substance, not an accident" (AT VII 434; CSM II 293). On this understanding of the notion of separability entailed in asserting that something is a complete thing, it follows that in asserting mind and body are really distinct Descartes means that they are separable in two ways. They can exist without the essential attribute of the other, and they can exist without existing in the other as in a subject.

In a passage in the *Replies to the Fourth Objections*, Descartes suggests that being a complete thing involves another notion of separability. He asserts at one point that a substance or what can exist *per se* is something that can exist without the help (*ope*) of any other substance (AT VII 226; CSM II 159). On this understanding of the notion of separability entailed in being a complete thing, when Descartes asserts that mind and body are really distinct he means that they are separable, first, in that they can exist without the essential attribute of the other, and second, in that they can exist without requiring the help of the other.

One reason for preferring the first account of what it is to be a complete thing over this second account is that the second account leads to the worry that mind and body are only modally distinct. If to be really distinct from something a substance must be able to exist without requiring the help of that thing, then since mind and body need the help of God in order to exist, they would be only modally distinct from God and hence modally distinct from each other. But Descartes certainly believes that mind and body can exist without existing in God as a subject.

On either of these weaker notions of what it is to be a complete thing, the inference Wilson apparently wants to make does not go through. So I think it is a mistake to claim that part of what Descartes means in asserting that mind and body are really distinct is that each can exist without the other existing.

So far in this discussion of separability, I have avoided mention of the *Principles*. But it contains two passages that bear on this question of the kind of separability involved in asserting that things are really distinct. My own view is that Descartes's theory of distinction does not undergo any significant shifts between the *Meditations* and *Principles*, so that my interpretation succeeds only if it can be reconciled with these passages from the *Principles*.

The first passage is from Descartes's definition of substance in part I, article 51. He asserts that created substances need only the help of the concurrence of God in order to exist (AT VIIIA 24–5; CSM I 210). Now he could be, and I believe standardly is, read as asserting here that created substances need nothing but the concurrence of God in order to exist, which would imply that they can exist without the existence of any other created substances. But the assertion need not, and I believe should not, be read this way. It can also be read as asserting that created substances need the help of the concurrence only of God in order to exist. And to assert that something can exist without the help of the concurrence of any other created substance is not necessarily to imply that it can exist without any other created substances existing. Given that created substances depend on God as an efficient cause of their existence, what Descartes presumably has in mind is that created substances do not require other created substances as an efficient cause of their existence.

The other passage is from Descartes's definition of real distinction in part I, article 60:

> Similarly, from the mere fact that each of us understands himself to be a thinking thing and is capable, in thought, of excluding from himself every

> other substance, whether thinking or extended, it is certain that each of us, regarded in this way, is really distinct from every other thinking substance and from every corporeal substance. For no matter how closely God may have united them, the power which he previously had of separating them, or conserving one without the other, is something he could not lay aside; and things which God has the power to separate, or to conserve separately, are really distinct. (AT VIIIA 29; CSM I 213)

The last sentence is naturally read as referring to God's power of conserving one without conserving the other, which would suggest that in asserting that mind and body are really distinct Descartes has in mind the first interpretation according to which each can exist without the other existing. But even this passage is ambiguous. It can also be read consistently with the other interpretations of separability so that Descartes's point might be that God could conserve one without real union with the other, or without the essential attribute of the other, or without existing in the other or without the help of the other. So I would conclude that the *Principles*' account of substance and real distinction is sufficiently ambiguous as to be consistent with any of the proposed interpretations of separability.

There is one other passage worth mentioning. In his letter to Mesland of February 9, 1645, Descartes distinguishes between the determinate parts of matter that constitute the human body and the human body. The human body remains numerically the same, even though it is constituted by numerically distinct determinate parts of matter over time. What accounts for the numerical identity of the human body over time, according to Descartes, is that it is united to the same soul (AT V 166–7; CSMK 242–3). So if we want to read Descartes as claiming that the mind is really distinct from the human body, and not just from the determinate parts of matter that constitute the human body, then we must understand real distinction along the lines of my favored interpretation, according to which really distinct substances are separable in two senses: they can exist without the principal attribute of the other and without existing in the other as in a subject. While it is true, according to the Mesland letter, that mind can exist without a real union with the body, it is false that the human body can exist without the mind existing or without a real union with mind. Since Descartes does not think that in being united with the mind the human body exists in the mind as in subject, nor, presumably, does he think its being united with the mind entails that the attributes of mind exist in it, then, unlike the first two interpretations, the third interpretation is consistent with both the Mesland letter and the claim that the mind is really distinct from the human body. A defender of either of the first two interpretations of separability would either have to dismiss this letter or argue that Descartes thinks that the mind is really distinct not from the human body but only from the determinate parts of matter that constitute the human body.

Finally, as I have argued elsewhere, I think it is absolutely central to Descartes's attempt to preserve the unity of the human being with the real distinction between

mind and body that he can argue that mind and body are substances only in the weak sense of being able to exist apart from a subject.[17] And to the extent that contemporary philosophers are concerned to maintain that human beings are genuinely one, then Descartes looks much more plausible if we understand the real distinction between mind and body less stringently along the lines of my proposed interpretation. But there is another contemporary perspective on the mind-body problem from which there is less concern with the question of whether human beings are genuinely one or merely composites. From this perspective, the issue of what sort of separability is entailed in being a created substance is really a side issue. It does not matter so much whether a created substance can exist without any other created thing existing, or without the help of another created substance, or without existing in another created substance. Rather, the significant point is that thought by itself constitutes the nature of substance and extension by itself constitutes the nature of a substance. My point again is that the separability of the attributes constitutes the heart of Cartesian dualism.

The same point can be revealed in still another way. Aristotle, without taking into account the ambiguities in the notion of separability noted here, argues that A is separable from B if A has a function or affection that is independent of B.[18] Gassendi seems to have this sort of criterion in mind when he objects to Descartes's argument for a real distinction between mind and body. Gassendi challenges Descartes, first, by objecting that he has not offered a criterion to show that his nature is incorporeal, and second, by asserting that the proper criterion to show that his nature is incorporeal is to show that the mind has some operation that takes place independently of the brain (AT VII 269; CSM II 188). Descartes's response is twofold. First, he asserts that he has offered a criterion to show that the mind is something other than body. The criterion is that the whole nature of mind consists in the fact that it thinks and that the whole nature of body consists in the fact that it is extended, and that thought and extension have nothing in common (AT VII 358; CSM II 248). Second, he asserts that he has in fact also satisfied Gassendi's criterion. He has shown that the mind can operate independently of the brain because the brain cannot be employed in pure understanding. What is interesting in this response is that while Descartes apparently thinks it is important to be able to meet Gassendi's criterion, he treats it as if it is independent from his own criterion for real distinction. He suggests, in other words, that he thinks he can show that mind and body are really distinct without showing that mind can operate independently of the brain. So what provides the basis for real distinction is that the mind can exist without extension existing in it, not that the mind can operate independently of extended things.

One might object not just to my answer to the question of what notion of separability Descartes has in mind in asserting that mind and body are really distinct but also to the very question itself on the grounds that he intends to establish not just the weak conclusion that mind and body are separable, but the strong conclusion that they are separate. In responding to this objection, I would note that our notion

of being separate is ambiguous. In one sense, to be separate is to be numerically distinct, that is, non-identical. Now if mind and body are separable, that is, if they can be separated, then it follows that they are numerically distinct, which means that they are separate in this first sense. Nothing is separable from itself. Since things distinct in any of Descartes's three ways are separate in this first sense, to say that really distinct things are separate does not tell us everything we want to know. We also want to know in which respects they are separable, that is, in what ways or in respect to what they can be separated.

In the other sense, to be separate means to be separated. Things can be separate in the first sense without being separate in the second sense. In other words, things can be numerically distinct without being separated. I would deny that Descartes believes real distinction requires that mind and body are separate in the second sense. That is, I think he would deny that real distinction between mind and body requires that they are separated. It requires only that they are separable in the sense that they can be separated, and that brings us back to my interpretive question: separated with respect to what—existence, union, attributes, and so on?

This leads to a further objection. It is clear that Descartes thinks that while we are alive, mind and body are not separated with respect to existence, nor are they separated with respect to their union. Is it true that mind and body are merely separable and not separated in those senses that I have claimed capture his understanding of real distinction? First, are the attributes of thought and extension merely separable or are they separated? One might argue that Descartes thinks they are always separated in the sense that extension never exists in the mind and thought never exists in the body. That is, they never exist together in the same simple substance. However, I would reply that Descartes would think it appropriate to say that thought and extension exist in the human being, which is a composite substance, and that in that sense the attributes thought and extension are not separated but merely separable. Second, are mind and body merely separable in the sense that each can exist without existing in the other as a subject or are they separated in the sense that neither does exist in the other as in a subject? Here I would respond that while the body never exists in the mind as a subject, there is some evidence that Descartes thinks the mind exists in the body as a subject. In the *Principles*, part IV, article 189, he asserts that the soul informs the entire body (AT VIIIA 315; CSM II 279); in the *Replies to the Sixth Objections*, he says that the mind can be said to be a quality of the body to which it is joined (AT VII 441–2; CSM II 297–8); and he never challenges his former judgment, mentioned in the *Third Meditation*, that the mind exists in the body (AT VII 50–1; CSM II 35). Thus I believe Descartes thinks that so long as we are alive, the mind is not separated from the body as its subject, but merely separable from it as its subject.

Let me briefly summarize my main claims. First, I have argued that Descartes believes that plurality in things themselves arises from distinction, so that things

that are distinct in any of the three ways are not numerically the same and hence not identical. The only exception to this concerns universals that, when considered in things themselves, are identical to particulars. Second, I have argued that to be distinct is to be separable, and in the case of things distinct by reason, this separability occurs only in thought and only by means of ideas that are not clear and distinct. Third, I have argued that the sort of separability involved in the real distinction between mind and body is weaker than it is typically construed because Descartes's notion of what it is to be a substance or a complete thing is very weak—to be a created substance it is sufficient to be able to exist apart from any other subject or perhaps not to need the help of any other created substance. Fourth, I have argued that the heart of Cartesian dualism concerns the separability of the attributes thought and extension.[19]

4

Descartes's Watch Analogy

In earlier essays, I have advocated a hylomorphic interpretation of Descartes's account of the union of mind and body.[1] Opponents of the hylomorphic interpretation have pointed to Descartes's watch analogy in article 6 of *The Passions of the Soul* as providing decisive evidence on their behalf. In her book *Descartes's Dualism*, Marleen Rozemond asserts that in that article Descartes "goes out of his way to deny that there is an important difference between a body united with the soul and one that is not" and she concludes that the passage is "very un-Aristotelian."[2] In a recent article, Robert Pasnau has argued that the passage provides decisive evidence that Descartes did not put his claim that the mind or soul is the substantial form of the body to any serious philosophical use.[3] Pasnau asserts that the passage seems impossible to reconcile with the view that Descartes takes seriously his remarks to Mesland that a human body remains numerically the same so long as it is joined to the same soul (AT IV 166; CSMK 242–3). However, if the identity of the human body does not depend on its being united to the mind, then that shows that Descartes does not take seriously his claim that the mind is a substantial form. Pasnau, like Rozemond, says that Descartes "is going out of his way" to dismiss hylomorphism.[4]

Here is the watch analogy:

> Therefore, so that we may avoid this error, let us consider that death never occurs through the fault of the soul, but only because one of the principal parts of the body disintegrates. And let us judge that the body of a living man differs from that of a dead man as much as a watch or other automaton (that is, other self-moving machine), when it is wound and contains the bodily principle of the movements for which it is constructed, along with everything required for its actions, [differs from] the same watch or other machine when it is broken and the principle of its movement ceases to act. (AT XI 330–1; CSM I 329–30; V 21)

Contrary to Rozemond, it simply is not true that Descartes asserts in this passage that there is no important difference between a body that is united to a soul and one that is not. He compares the difference between the body of a living man and the body of a dead man to the difference between a working watch and a broken watch, but he does not say or suggest that the difference is unimportant. Indeed, he clearly thinks it is important, because he believes that the soul departs precisely because the part of the body that is the principle of the body's movements has ceased to act, as he tells us in the immediately preceding article:

> on seeing that all dead bodies become devoid of heat and then movement, people have imagined that it was the absence of the soul that made the movements and the heat cease. And so they have groundlessly believed that our natural heat and all the movements of our body depended on the soul—whereas people ought to think, on the contrary, that the soul departs when someone dies only because that heat ceases and the organs used to move the body disintegrate. (AT XI 330; CSM I 329; V 21)

In a more recent article, Rozemond explains what she finds un-Aristotelian about the watch analogy.[5] First, she notes that "[f]or the hylomorphist the soul is the form of the organic body by being its principle of life." I understand her objection to be that it is essential to hylomorphism that the soul be regarded as the source of the life. Since Descartes is giving up the view that the soul is the source of life, his view cannot be a hylomorphic view. But this is a mistake. What is essential to hylomorphism is that the form actualize the matter in some robust sense. It is not generally the case that forms are required to give life to matter in order to actualize it; otherwise there could be no hylomorphic account of a bronze sphere or an axe or fire; so the fact that Descartes rejects the view that the soul is the source of life of the body does not count against his holding a hylomorphic account of their relation. Descartes himself makes a very similar point in the *Replies to the Fifth Objections*:

> Thus, primitive man probably did not distinguish between, on the one hand, the principle by which we are nourished and grow and accomplish without any thought all the other operations which we have in common with the brutes, and, on the other hand, the principle in virtue of which we think. He therefore used the single term 'soul' to apply to both; and when he subsequently noticed that thought was distinct from nutrition, he called the element which thinks 'mind,' and believed it to be the principal part of the soul. I, by contrast, realizing that the principle by which we are nourished is wholly different—different in kind—from that in virtue of which we think, have said that the term 'soul,' when it is used to refer to both these principles, is ambiguous. If we are to take 'soul' in its special sense, as meaning the 'first actuality' or 'principal form of man,' then the term must be understood to apply only to the principle in virtue of which we think; and

> to avoid ambiguity I have as far as possible used the term 'mind' for this. (AT VII 356; CSM II 246)

Descartes is in effect arguing here that the two roles traditionally ascribed to the soul—that of being the source of life and that of being the principal form of man—are logically distinct, and moreover, that it is the mind, or the principle by which we think, that is the principal form of a human being. I argued earlier that since Descartes thinks the identity of the human body depends on its being united to the mind, the Cartesian mind does actualize the body in a sufficiently robust sense to support the hylomorphic interpretation.[6]

Rozemond's other reason for asserting that the watch analogy is un-Aristotelian is that there is a metaphysical and not merely a mechanical difference between a dead and a living body. I agree with Rozemond that Aquinas held such a view, but, as I will argue below, this was a matter of dispute among scholastic Aristotelians.

Pasnau asserts that "[i]f a watch stands to working as the human body stands to being alive, then a broken watch should not be 'the same watch'—not if Descartes accepts that the soul is what gives the body its identity conditions."[7] Pasnau is correct that living is supposed to be analogous to working, but the conclusion he draws, that the broken watch would not then be the same watch as the working watch, simply does not follow. In order to arrive at that conclusion, one would have to make the unstated further assumption that the human body is the same body if and only if it participates in the same life. While this is Locke's view, it is not Descartes's. Indeed, given that Descartes's aim in the *Passions* passage is to provide support for his view that the soul is not the source of life, then in order to maintain his view that the soul is the source of the identity of the human body, he has to reject this unstated further assumption on which Pasnau is relying; and there is decisive textual evidence that he does reject it.

In the letter to Mesland, Descartes notes that the term 'body' is ambiguous and he explains the identity conditions for each kind of body:

> First of all, I consider what exactly is the body of a man, and I find that this word 'body' is very ambiguous. When we speak of a body in general, we mean a determinate part of matter, a part of the quantity of which the universe is composed. In this sense, if the smallest amount of that quantity were removed, we would judge without more ado that the body was smaller and no longer complete; and if any particle of the matter were changed, we would at once think that the body was no longer quite the same, no longer numerically the same. But when we speak of the body of a man, we do not mean a determinate part of matter, or one that has a determinate size; we mean simply the whole of the matter which is united with the soul of that man. And so, even though that matter changes, and its quantity increases or decreases, we still believe that it is the same body, numerically the same body,

> so long as it remains joined and substantially united with the same soul. (AT IV 166; CSMK 242–3)

Thus for Descartes the identity of a determinate part of matter is determined by its consisting of the same particles of matter, and the identity of the human body is determined not by its being alive, but by its being united to the soul. There is no body such that its identity conditions are determined by participating in the same life. Since a watch is nothing other than a determinate part of matter, a working watch could be the same determinate part of matter as a broken watch, provided that it is constituted by exactly the same particles of matter as the broken watch. Therefore, there is no problem with Descartes's assertion that the working watch and the broken watch are the same.

In article 6 of the *Passions*, Descartes does not say that the body of the living man is the same body as that as of the dead man, nor does he deny it. However, since he identifies the working watch and the broken watch, he certainly suggests that he thinks the body of the living man is the same body as that of the dead man. Is this un-Aristotelian? Does it show that he is not committed to hylomorphism? Does it conflict with the Mesland letter?

As Marilyn Adams has documented, there was an important dispute among medieval Aristotelians whether a corpse is the same body as the body of the living man. Aquinas argues that it is not, because he holds that a body remains numerically the same if and only if it is united to the same form, and that there can be only one form per substance. Other scholastic Aristotelians such as William Ockham and Duns Scotus disagreed, however, arguing for the identity of the living body and the corpse, because among other reasons, as Ockham and Richard Middleton alleged, identity provides the only plausible explanation of why a corpse would have the same accidents possessed by the living body, for example, color and shape.[8] Since the argument for the hylomorphic interpretation depends in part on the claim that Descartes's hylomorphism more nearly resembles that of Ockham and Scotus than that of Aquinas,[9] one would expect him to side with them against Aquinas on the relation between the body of the living man and the corpse.

Does the suggestion that the body of the living man is numerically the same as the body of the dead man conflict with the letter to Mesland? The body of the dead man could, at least for a short time, be constituted by the same determinate part of matter that constituted the body of the living man, and so it could be the same body in that sense of the term 'body' (I am assuming here that a part of the body could disintegrate without being separated from the rest of the body). The determinate part of matter that constitutes the human body is really on all fours with the watch. They are numerically the same, provided they have the same particles. The difference between the determinate part of matter that is alive and that which is dead is simply that one has a principle of movement that is working and the other does not. So if by the phrase "the body of the living man" Descartes is referring to the

determinate part of matter that constitutes the human body, then there is no conflict with the Mesland letter.

It would seem somewhat more likely, however, that by the phrase "body of the living man" Descartes is referring not to the determinate part of matter, but to the human body. In the Mesland letter, Descartes says that by the phrase "body of a man" he does not mean the determinate part of matter, but rather "the whole of the matter which is united to the soul of that man." Does it not conflict with the Mesland letter for Descartes to suggest that a human body could be numerically the same as the body of a dead man? There is as yet no conflict, even if we read the Mesland letter as asserting that being united to the same soul is not only sufficient but also necessary for the identity of a human body. To be sure, it does follow on this reading of the Mesland letter that in the typical case a human body will be numerically different from the body that remains after death; but the reason they are numerically different is not that one is alive and the other is not. They are numerically different because the same soul cannot be attached to a dead body, except by a miracle:

> The soul of Jesus Christ could not have remained naturally joined with each of these particles of bread and wine unless they were assembled with many others to make up all the organs of a human body necessary for life; but in the Sacrament it remains supernaturally joined with each of them even when they are separated. (AT IV 168; CSMK 244)

Therefore, if God were by a miracle to join the soul to a dead body, that dead body would be the same human body as the body to which the soul was attached when it was alive. Thus it is perfectly consistent with the Mesland letter for Descartes to suggest in the watch analogy that we might consider a human body to be numerically identical with a corpse. Moreover, one can understand that Descartes would want to avoid being explicit about these sorts of complications about the identity of a human body in the first few articles of the *Passions*.

One might respond with the following argument, which is articulated neither by Rozemond nor by Pasnau. The context of the watch analogy strongly suggests that Descartes is inviting us to think of the typical case in which there is no miracle and the soul has departed as it naturally does when the body ceases to function properly. In that case, according to the Mesland letter, the human body could not be identical to the body of the dead man; so Descartes must not really believe what he says in the Mesland letter, and thus he really is not committed to hylomorphism.

There are three responses to this argument worth noting, but it is the second and third that are the most important. First, consider the referent of the problematic phrase "the body of the dead man." If the referent of that expression really does satisfy the description of being the body of the man, then according to the interpretation of the Mesland letter that makes it a necessary condition of being the body of a man that it be united to the soul of that man, it would still have to be united to the soul. One might then claim that Descartes is being especially crafty in his use of

the expression "body of the dead man" in the watch analogy, aiming to signal to his more acute readers that he is considering the atypical case in which God continues to keep the soul united to the body after death. This scenario seems far-fetched.

Second, one might argue that in the Mesland letter Descartes is only claiming that it is a sufficient condition for being the body of a man that the body be united to the soul. He is not claming that it is a necessary condition. So the following sophisticated sort of view is consistent with what Descartes says in the letter to Mesland and in the watch analogy: a determinate part of matter that has constituted a human body in virtue of being united to a soul will continue to be the same human body so long as it continues to exist as the same determinate part of matter. In other words, Descartes would be committed to the weaker view that it is sufficient for a determinate part of matter to be a human body that it have been a human body by virtue of having been united to the soul of the man. I do not see that such a view is antihylomorphic in any way. It is still true that the identity of the human body is determined by its relation to the soul, it is just that the relation is more subtle. The relation is understood to be that of having been united to the soul and does not require still being united to it.

Third, one might concede that there is a genuine tension between the Mesland letter and the watch analogy. In the Mesland letter, it might be conceded, Descartes is committing himself to the view that the identity of the human body requires that it be united to the soul, but in the watch analogy, he is giving this up to adopt the more sophisticated view described earlier according to which the whole of a determinate part of matter that was once united to a soul should still count as the same human body. What this tension reflects, however, is not a tension between accepting or denying hylomorphism. Instead, it reflects a dispute within hylomorphism. Interpreting the Mesland letter as placing a necessary condition on the identity of the human body, Descartes is claiming that the human body must be united to the soul, and thus in the typical case where there is no miracle, a corpse is not a human body. However, in the watch analogy he has relaxed the criterion for what is to be a human body and is allowing that the whole of a determinate part of matter that was once united to a soul should still count as the same human body. Again, I see nothing antihylomorphic in such a stance. Indeed, the sophisticated view is consistent with the spirit and main thrust of the Mesland letter, according to which the identity of the human body is determined by its relation to the soul.

My conclusion is that proponents of the hylomorphic interpretation of Descartes have nothing to fear from the watch analogy.

5

The Union and Interaction of Mind and Body (Part 1)

Descartes is often portrayed as a villain in the history of Western thought on the grounds that his dualism of mind and body—his view that thinking things and extended things are really distinct substances—sent philosophy on the wrong path. The leading objection to Cartesian dualism is that once having distinguished mind and body as really distinct substances, it is impossible to provide a satisfactory account of their connection. This problem of the connection or union of mind and body is often construed to be one of explaining how mind and body causally interact, that is, how thoughts in the mind produce motions in the body and how motions in the body produce sensations, appetites, and emotions in the mind. As Anthony Kenny says:

> These remarks make clear *that* soul and body are connected and *why* they should be connected as they are, but they do not explain *how* they are connected. On Descartes's principles it is difficult to see how an unextended thinking substance can cause motion in an extended unthinking substance and how the extended unthinking substance can cause sensations in the unextended thinking substance.[1]

However, the very passage Kenny cites from the *Sixth Meditation* suggests on the contrary that the union of mind and body is metaphysically more fundamental than their interaction and is meant to account for it: "these sensations of hunger, thirst, pain and so on are nothing but confused modes of thinking which arise from the union, and, as it were, intermingling of the mind and the body" (AT VII 81; CSM II 56).

Moreover, it has seemed to me that the notion of the union of mind and body has another equally important, if not more important, explanatory role for Descartes, namely, that of explaining why the product of the union of mind and body, the human being, should be considered a genuine unity or an *ens per se*, that is, a substance and not a mere aggregate or heap.[2] Thus there are really three different problems that go under the name of the union of mind and body. The first is that of

the interaction of mind and body. The second is that of the relation between mind and body. The third is that of the unity of the composite. Until recently, the third problem was not taken seriously by English-speaking commentators. French commentators have tended to take the issue more seriously, but with the exception of Geneviève Rodis-Lewis, they have not been very sympathetic to Descartes.[3]

It is my controversial contention that Descartes's solutions to these three problems of the union of mind and body are based on his retention of two fundamental Aristotelian metaphysical doctrines. The first doctrine is that of *hylomorphism*: that mind and body are related as form to matter and that the composite human being that results is itself a substance. The second doctrine is the *identity of action and passion*: that whenever a causal agent acts on something (referred to as the patient), what the agent does (the action) and what the patient undergoes (the passion) are one and the same. While the first Aristotelian doctrine is familiar to most contemporary philosophers, the second, basic to the Aristotelian account of causation, is scarcely known or discussed.

1. Descartes's Hylomorphism

The view that Descartes endorses hylomorphism is a form of what is sometimes called Cartesian trialism. But we must be careful, because one can distinguish two versions of trialism, and hylomorphism commits to only one. According to the weak version, Descartes is a trialist because he thinks that minds, bodies, and human beings are all substances. Hylomorphism falls under this first version (but one could endorse this version—one could assert that the human being is a substance—without endorsing the hylomorphic account of the union of mind and body). According to the strong version, Descartes is a trialist because he thinks there are three ultimate classes of created substances: minds, bodies, and human beings, each with its own distinctive principal attribute. One can be a weak trialist without being a strong trialist. So one might argue that the human being is a substance, but deny that it has its own distinctive attribute. Instead, minds (thinking things) and bodies (extended things) are the only two ultimate classes of created substances, and human beings are constructed out of them.

Someone who endorses the weak version of trialism might be led to endorse the strong version by the following considerations. In the *Principles*, Descartes asserts that each substance has one principal property that constitutes its nature and essence, which strongly suggests that if the human being is a substance it must have a distinctive attribute (AT VIIIA 25; CSM I 210). And there is a passage from his correspondence with Princess Elizabeth that has been taken to suggest that Descartes recognizes three basic attributes—that in addition to extension and thought he also recognizes a third attribute: their union.

> First I consider that there are in us certain primitive notions which are as it were the patterns on the basis of which we form all our other conceptions.

> There are very few such notions. First, there are the most general—those of being, number, duration, etc.—which apply to everything we can conceive. Then, as regards body in particular, we have only the notion of extension, which entails the notions of shape and motion; and as regards the soul on its own, we have only the notion of thought, which includes the perceptions of the intellect and the inclinations of the will. Lastly, as regards the soul and the body together, we have only the notion of their union, on which depends our notion of the soul's power to move the body, and the body's power to act on the soul and cause its sensations and passions. (AT III 665; CSMK 218)

It is important that Descartes is endorsing the notion of the union of mind and body as something primitive, that is, not subject to further analysis, but it seems implausible to read him as suggesting here that the union of mind and body should be considered to be an attribute, that is, something constituting the nature or essence of a substance. Instead, he is just indicating that the relation between mind and body is something primitive and unanalyzable, which echoes an earlier remark to Regius:

> You must profess that you believe…that mind is really and substantially united to body, not by position or disposition, as you say in your last paper—for this too is open to objection, and, in my opinion, quite untrue—but by a true mode of union, such as everyone openly allows, even if no one explains what sort it is, and so you also are not obligated to do so. (AT III 493; CSMK 206)

Since the union that the others "openly allow" is the relation between mind and body construed as the relation between form and matter, I read Descartes as making the good philosophical point, reflected in the letter to Elizabeth, that the relation between form and matter is a primitive and unanalyzable notion. Form is said to inform or inhere in matter, and this relation creates a closer bond than that of mere disposition or position, but there is no further analysis or account to be given of this relation.

What is the evidence that Descartes endorses a hylomorphic account of the human being?

1. In his January 1642 letter to Regius, he asserts that the human soul "is the true substantial form of man" (AT III 505; CSMK 208).
2. In the same letter to Regius, he asserts that the human soul is "recognized to be the only substantial form, whereas the rest [of the so-called substantial forms] are composed of the configuration and motion of parts [of matter]" (AT III 503; CSMK 207).
3. In a letter to Mersenne, dated 1645 or 1646, he says that "the numerical identity of the body of a man does not depend on its matter, but on its form, which is the soul" (AT IV 363; CSMK 279).

4. In the *Rules*, he asserts that the body is informed by the human mind (AT X 411; CSM I 40).
5. In the *Principles*, he asserts that the human soul informs the whole body (AT VIIIA 315; CSM I 279).
6. In the *Fifth Replies*, he notes that people have used the term 'soul' to refer both to the principle by which we are nourished and grow and the principle by which we think; and he asserts that "as it is taken specially as the 'first actuality' or 'principal form of man' it must be understood to refer only to the principle by which we think, which as much as possible I have called 'mind' in order to avoid ambiguity" (AT VII 356; CSM II 246).

The next three passages require explanation. In these passages Descartes is alluding to and endorsing the scholastic view that the mind or soul exists whole in the whole body and whole in each of its parts. Since that view is part and parcel of the scholastic hylomorphic conception of the relation between the soul and the body, Descartes's endorsement of it counts as significant evidence that he endorses a hylomorphic conception of the human being.[4]

7. In *The Passions of the Soul*, he asserts that "the soul is truly joined to the whole body and that one cannot properly say that it is in any one of its parts to the exclusion of the others" (AT XI 351; CSM I 339).
8. In the *Sixth Meditation*, he asserts that "although the whole mind seems to be united to the whole body, I recognize that if a foot or arm or any other part of the body is cut off, nothing has thereby been taken away from the mind" (AT VII 86; CSM II 59).
9. In the *Sixth Replies*, he asserts that he way he understands the mind to be coextensive with the body is that it is "whole in whole and whole in any of its parts" (AT VII 442; CSM II 298).

This is a considerable body of textual evidence, enough to shift the burden of proof to the opponents of the hylomorphic interpretation, especially since there are no passages standing in direct opposition. That is, there are no passages in which Descartes denies that the soul is the substantial form of the body, denies that the soul informs the whole body, or denies that the soul exists whole in the whole body and whole in its parts. To refute the hylomorphic interpretation, one has to make the case that he was being disingenuous in all these passages. Such a charge of disingenuousness can be made to stick only if there is compelling evidence that he has other more fundamental commitments that are inconsistent with his explicit endorsement of hylomorphism.

Some commentators have tended to discount the remarks to Regius on the grounds that he was merely advising Regius to say things that would avoid further controversy with the authorities at the University of Utrecht. However, since much

of his advice to Regius concerning the closely related issue of whether the human being is an *ens per se* is a close paraphrase of parts of his *Fourth Replies* (to Arnauld's objections), written around the same time, that particular argument for disingenuousness is weakened considerably. Descartes's replies to Arnauld's objections have always been considered to be the most significant of his replies, even if commentators have tended to overlook its implications for his understanding of substance (to be discussed more fully later).

Opponents of the hylomorphic interpretation have pointed to four fundamental commitments that they claim are inconsistent with hylomorphism.

First, some commentators who (like me) deny that the union counts as a principal attribute cite the *Principles* passage where Descartes asserts that each substance has one principal property that constitutes its nature and essence as providing conclusive evidence that he does not consider the human being to be a substance. And all parties agree that a hylomorphic account of the union of mind and body entails that a human being is a substance. My response to this objection continues to be that the *Principles* passage is superseded by Descartes's more complete discussion in the later *Comments on a Certain Broadsheet*:

> As for the attributes which constitute the natures of things, it cannot be said that those which are different, and such that the concept of the one is not contained in the concept of the other, are present together in one and the same subject; for that would be equivalent to saying that one and the same subject has two different natures—a statement that implies a contradiction, at least when it is a question of a simple subject (as in the present case) rather than a composite one. (AT VIIIB 349–50; CSM I 298)

Here Descartes reveals that his true position is more nuanced than the one set out in the *Principles*. He believes that even a simple subject can have two or more attributes of the sort that constitute the natures of things, provided neither can be conceived independently of each other. Moreover, he thinks it is not contradictory that a composite subject, such as a human being, should have two attributes that can be conceived independently of each other. Commentators who take the *Principles* passage as the key text for understanding Cartesian dualism have tried to discount this passage by arguing that since Descartes only refers to composite subjects, not to composite substances, it cannot justifiably be inferred that he thinks there are composite substances. I do not find this strategy credible. It seems uncharitable to read Descartes as introducing a new kind of subject of attributes (of the sort that constitute the nature of things) that is something other than a substance without telling us what kind of thing it is.

Vere Chappell has objected to my interpretation of the *Comments* passage by claiming that Descartes is not in fact endorsing the view that a simple substance can have more than one attribute if one is conceived through the other. He notes that earlier in the same paragraph, Descartes asserts that there is a contradiction

in saying that principal attributes are different but not opposites, offering as a justification that there is no greater opposition between principal attributes than their being different:

> [Regius] adds 'these attributes are not opposites, but merely different.' Again, there is a contradiction in this statement. For, when the question concerns attributes which constitute the essence of some substances, there can be no greater opposition between them than the fact that they are different; and when he acknowledges that the one attribute is different from the other, this is tantamount to saying that the one attribute is not the other; but 'is' and 'is not' are contraries. (AT VIIIB 349; CSM I 298)

Chappell interprets this to mean that Descartes is inflating the difference between principal attributes to amount to opposition, so that if principal attributes are different then they are contraries, which would imply that it is a contradiction for them to exist in one and the same subject.

I read Descartes as, on the contrary, deflating opposition between principal attributes to mere difference. On my interpretation, the route to the contradiction is more involved: if principal attribute A is different from principal attribute B and neither attribute is contained in the other, then it follows that a subject containing both A and B has two natures or essences; but it is a contradiction that a simple substance should have more than one nature or essence. Descartes is allowing that a substance with two different (i.e., non-identical) principal attributes would not have two essences, provided the concept of one was contained in the concept of the other. I believe that some medievals would have wanted to say that God provides an example of such attributes whose concepts are not independent but distinct only by reason: God has more than one principal attribute, but God has only one essence.[5]

I would argue that while both readings of the passage have a certain plausibility, mine fits more closely to the text. Chappell's reading requires reinterpretation of two key clauses. First, he tells us that when Descartes says one attribute is not the other, what he really means is that one *is a contrary of* the other. Second, he tells us that when Descartes says that "[a]s for the attributes which constitute the natures of things, it cannot be said that those which are different, and such that the concept of the one is not contained in the concept of the other" ("quae sunt diversa, & quorum neutrum in alterius conceptu continetur") what he really means is "[a]s for the attributes which constitute the natures of things, it cannot be said that those which are different, *in that* the concept of the one is not contained in the concept of the other." That is, Chappell is arguing that we should take the final clause to be in apposition with the preceding one rather than, as it is naturally read, to introduce a further restriction. My reading does not require any such reinterpretations.

To ascribe to Descartes the view that the human being is a composite substance having two essences each of which can be clearly and distinctly conceived apart

from each other might seem equally incompatible with ascribing to him a hylomorphic conception of a human being. For it might be claimed that hylomorphism requires that a human being have only one essence. However, I believe that this is mistaken as a general thesis about hylomorphism. While it is true that Aquinas held this, in fact other prominent scholastics, for example Scotus and Ockham, argued that a human being required more than one substantial form, including the form of corporeity, the sensitive soul, and the intellective soul; moreover, they held that these substantial forms were really distinct from one another.

Marleen Rozemond has argued that this defense of the hylomorphic interpretation of Descartes is inadequate because Ockham and Scotus made use of an additional resource lacking in Descartes to account for the unity of a substance with multiple forms, namely, the notion of the forms being subordinated to one another and thereby constituting a hierarchy.[6] I concede that Descartes never does mention this idea of a hierarchy of the constituent elements of a composite substance, but he does make use of a very similar notion that I believe will suffice, namely, that of one element of a composite subject being the principal element, in relation to which the others, even though substances, can be regarded as modes (AT VIIB 351; CSM I 299).

Second, commentators have objected that Descartes's denial that the soul is the principle or source of life is inconsistent with a hylomorphic conception of the relation between soul and body. It is certainly true that one of the major differences between Descartes and his Aristotelian predecessors is that he thought that life could be explained mechanistically through extension alone and that therefore the soul is not required as the principle of life. But as the fifth passage, quoted earlier, from the *Fifth Replies* shows, Descartes thought this was no barrier to considering the soul, understood to be nothing other than the principle by which we think, to be the principal form of the human being. Descartes is correct to claim that these two roles traditionally attributed to the soul—that of being the principal form of the human being and that of being the principle of life—are logically distinct. Forms in general are not sources of life; otherwise there could be no hylomorphic account of inanimate things such as a bronze sphere or fire.

Third, commentators have objected that Descartes's watch analogy in *The Passions of the Soul* shows that he cannot be seriously committed to hylomorphism:

> So as to avoid this error, let us note that death never occurs through the absence of the soul, but only because one of the principal parts of the body decays. And let us recognize that the difference between the body of a living man and that of a dead man is just like the difference between, on the one hand, a watch or other automaton (that is, a self-moving machine) when it is wound up and contains in itself the corporeal principle of the movements for which it is designed, together with everything else required for its operation; and, on the other hand, the same watch or machine when it is broken and the principle of its movement ceases to act. (AT XI 330–1; CSM I 329–30)

Robert Pasnau argues that this passage shows that Descartes does not really take seriously his claim in a letter to Mesland that the identity of the human body depends on its relation to the soul:[7]

> First of all, I consider what exactly is the body of a man, and I find that the word 'body' is very ambiguous. When we speak of a body in general, we mean a determinate part of matter, a part of the quantity of which the universe is composed. In this sense, if the smallest amount of that quantity were removed, we would judge without more ado that the body was smaller and no longer complete; and if any particle of the matter were changed, we would at once think that the body was no longer quite the same, no longer *numerically the same*. But when we speak of the body of a man, we do not mean a determinate part of matter, or one that has a determinate size; we mean simply the whole of the matter which is united with the soul of that man. And so, even though that matter changes, and its quantity increases or decreases, we still believe that it is the same body, *numerically the same* body, so long as it remains joined and substantially united with the same soul. (AT IV 166; CSMK 242–3)

This objection is significant because it is a crucial element of the hylomorphic account of the relation between soul and body that the soul actualize the body in some suitably robust sense. If the identity of the human body is determined by its being united to the soul as asserted in the Mesland letter, then there is a suitably powerful sense in which the mind does actualize the body. But if that letter is discounted, then there does not seem to be any suitably powerful sense in which the mind actualizes the body.

The reason given for holding that the watch analogy is inconsistent with the Mesland letter is that Descartes should not allow that the broken watch is identical with the working watch if their relation is similar to that between the body of a living man and a dead man, since the Mesland letter entails that the body of a living man and that of a dead man are not identical. The first thing to note in response to this objection is that Descartes's scholastic predecessors who endorsed the hylomorphic conception of the human being were in disagreement whether the corpse was identical with the living human body. Aquinas argued that it was not; Scotus and Ockham argued that it was. Indeed, the claim that it must be identical in order to explain why it has the accidental features it has, such as its color and shape, was the source of one of their arguments for attributing a distinct form of corporeity to human beings. So there is nothing antihylomorphic in Descartes's endorsing the view that the body of the living man is identical with the body of the dead man. Moreover, there are at least two ways to reconcile his watch analogy with his account of the identity of the human body in the Mesland letter. First, one might read him not to be asserting in the watch analogy that the human body is identical with the corpse, but rather to be asserting that the determinate part of matter that constitutes the living human body before death can be identical with the determinate part of

matter that constitutes the corpse. According to Descartes, a determinate part of matter remains numerically the same, provided it consists of exactly the same particles. The body of the dead man could, at least for a short time, be constituted by the same determinate part of matter that constituted the body of the living man, and so it could be the same body in that sense of the term "body." Second, one could argue that Descartes's primary aim in the Mesland letter was to explain how numerically distinct determinate parts of matter could count as numerically the same human body. There is nothing inconsistent with the Mesland letter in his maintaining that a given determinate part of matter remains numerically the same human body so long as that determinate part exists, even if it has ceased to be united to the soul. This would still allow for the claim that the soul actualizes the body in a robust sense—what makes a determinate part of matter into a human body is the fact that it is or was united to the soul.

Fourth, commentators have objected that in asserting as he does that mind and body are substances, *entia per se*, or complete things considered in themselves, Descartes cannot then construct another substance, complete thing, or *ens per se* out of them. It is basic to the hylomorphic conception that the constituents of a substance cannot themselves be substances. The composite consisting of substance and something else will always be an *ens per accidens*.

To respond to his objection, let me spotlight a significant oversight in Cartesian scholarship on this general topic. Commentators have simply failed to recognize that Descartes's conception of what it is to be a created substance is very weak, much weaker than that of his Aristotelian predecessors. No Aristotelian would have granted that a hand is a substance, but some of them, most notably Aquinas, did grant that there was a weak sense of what it is to be a complete thing or an *ens per se* according to which a hand can be considered to be a complete thing or an *ens per se*. When Descartes asserts the mind and body are substances or complete things, he means it only in that weak sense in which Aquinas allowed that a hand is a complete thing or *ens per se*. The crucial passage is from the *Fourth Replies* (to Arnauld's objections):

> I am not unaware that some substances are commonly called 'incomplete.' But if they are said to be incomplete because they cannot exist *per se* alone, I confess that it seems contradictory to me that they should be substances, that is, things subsisting *per se* and at the same time incomplete, that is, unable to subsist *per se*. But in another sense they can be said to be incomplete substances, namely such that insofar as they are substances, they have nothing incomplete, but only insofar as they are referred to some other substance, with which they compose something one *per se*.
>
> Thus a hand is an incomplete substance when it is referred to the whole body of which it is a part; but it is a complete substance when it is considered alone. And in just the same way mind and body are incomplete substances

> when they are referred to the man which they compose; but, considered alone, they are complete. (AT VII 222; CSM II 156–7)

Anything that can exist apart from a subject is going to count for Descartes as an *ens per se* or substance; and this is the basis of his argument that the scholastic notion of a real accident is contradictory:

> Secondly, it is completely contradictory that there should be real accidents, since whatever is real can exist separately from any other subject; yet anything that can exist separately in this way is a substance, not an accident. The claim that real accidents cannot be separated from their subjects 'naturally,' but only by the power of God, is irrelevant. For to occur 'naturally' is nothing other than to occur through the ordinary power of God, which in no way differs from his extraordinary power—the effect on the real world is exactly the same. Hence if everything which can naturally exist without a subject is a substance, anything that can exist without a substance even through the power of God, however extraordinary, should also be termed a substance. (AT VII 434–5; CSM II 293)

Thus Descartes is not committed to the view that mind and body are substances or *entia per se* in the stronger sense in which the Aristotelians considered a human being to be a substance. An Aristotelian human being is not incomplete in relation to anything else, but the Cartesian mind and human body are incomplete in relation to the human being. Since the mind and body are *entia per se* only in the weak sense of being capable of existing apart from a substance, they are the sorts of things that Aristotelians considered eligible to be constituents of substances.

Marleen Rozemond has objected that these considerations are not sufficient to show that Descartes holds a hylomorphic conception of the relation between mind and body. She maintains that scholastics required further that the constituents of substance be incomplete according to their essence and that they have a natural aptitude to be united to each other. In an earlier essay, I made a twofold response.[8] First, I argued that Descartes should be translated in his December 1641 letter to Regius as advising him to say that he had shown that body and soul, *by their very nature*, are incomplete substances ("dixisti animam & corpus, ratione ipsius, esse substantias incompletas") (AT III 460; CSMK 200). I am now convinced of the correctness of the standard translation according to which he is advising Regius to say that he has shown that body and soul, *in relation to the man*, are incomplete substances. Compelling evidence against my translation of the phrase *ratione ipsius* is provided by a passage from the *Letter to Father Dinet* in which Descartes characterizes what Regius has said as "those substances are called incomplete, in relation to the composite [*ratione compositi*] which arises from their union" (AT VII 585–6; HR II 363). Second, I asserted that Rozemond is not justified in dismissing Descartes's remark in the letter to Father Dinet that things that are incomplete with

respect to something else have a natural aptitude to be united. Here is the entire quotation:

> therefore, they [the proponents of the thesis that the union of mind and body arises *per accidens*] denied neither the substantial union by which mind is conjoined to body nor the natural aptitude of each part to that union, as is clear from that fact that they added immediately afterwards: "those substances are called incomplete in relation to the composite which arises from their union." (AT VII 585, HR II 363)

What I would emphasize now about this passage is that Descartes is expressing the view that mind and body have a natural aptitude to be united, that is, it is natural for them to be united, even if it is not part of their essence to be united. Moreover, this follows from its being the case that mind and body are incomplete in relation to the composite human being, that is, something that is one *per se*. I think it is perfectly reasonable for Descartes to draw a distinction between what is essential to a thing and what is natural for that thing; in addition, I think that he can still claim to have a hylomorphic conception of a human being so long as he maintains that it is unnatural for its parts to be separated.

My conclusion is that Descartes does not in fact have other fundamental commitments that are incompatible with his expressed endorsement of hylomorphism. Therefore, there are not good grounds for accusing him of disingenuousness, a charge whose seriousness I believe is underestimated by those making it. I would also conclude that Descartes's account of the unity of the composite human being is no worse than that of his Aristotelian predecessors, with whom he is so often unfavorably compared.[9]

6

Descartes and Aquinas on Per Se *Subsistence and the Union of Soul and Body*

Aquinas explicitly recognizes a weak and a strong notion of *per se* subsistence, or equivalently, a weak and a strong notion of what it is to be what he calls a "this something" (*hoc aliquid*).[1] The weak notion of *per se* subsistence amounts to existing without existing in a subject. Aquinas says that a hand subsists *per se* in this weak sense, but denies that accidental and material forms (which include the souls of plants and animals) subsist *per se*.[2] The strong or proper notion of *per se* subsistence requires, in addition to subsistence in the weak sense, subsisting completely in the nature of a species.[3] Human beings, animals, and plants meet both conditions, but since hands and eyes are merely parts they do not subsist completely in the nature of a species.[4]

Aquinas distinguishes human souls from human beings by denying that human souls subsist completely in the nature of a species.[5] In order to have a complete species the human soul has to be joined to the body.[6] He distinguishes human souls from the souls of plants and animals by claiming that the human soul, unlike these other souls, has a *per se* operation, that is, an operation that it performs on its own apart from the body.[7] He infers from the fact that the human soul has a *per se* operation that it subsists *per se*, apparently implying by this that the soul subsists *per se* in the weak sense.[8] However, in describing the human soul as subsisting, sometimes he says not that it does exist *per se* but that it can subsist *per se*.[9] So there is an important ambiguity whether Aquinas thinks the human soul does exist apart from a subject or merely that it can exist apart from a subject. The underlying issue here, which can be left unresolved for the purposes of this essay, is whether Aquinas thinks the human soul in its natural state of informing the body should be described as existing in the body as in a subject or not.

The human soul on Aquinas's account is therefore like a hand or an eye because it subsists or at least can subsist *per se* in the weak sense but not in the strong sense. There is, or so it seems to me, some ambiguity in the text whether Aquinas thinks a hand and an eye have a *per se* operation. In contrast to his treatment of the human

soul, he does not argue that a hand and an eye subsist *per se* in the weak sense by arguing that they have a *per se* operation, nor does he assert, as far as I can determine, that they have a *per se* operation. He does deny that they have a *per se* operation in the sense that requires subsisting completely in the nature of species, but that is true of human souls as well.[10] The fact that he says we can say that the hand touches and the eye sees in the same way we can say that the human soul understands—even though it is more proper to say that the human being does these things—whereas we cannot in the same way say that heat makes things hot, strongly suggests that he does think touching is a *per se* operation of a hand and seeing of an eye.[11] But if Aquinas holds instead that hands and eyes do not have a *per se* operation, then it would follow that human souls have an intermediate status between them and human beings.

In trying to establish that the human soul has a *per se* operation, Aquinas gives an argument that the principle of thought cannot itself be bodily and that it cannot take place through a bodily organ.[12] So we should think of the human soul as having a *per se* operation in its natural state of informing the body. Nevertheless, in our natural state the operation of thought is not entirely independent of the body. Aquinas thinks that in order to have knowledge in its natural state the human soul requires phantasms from which it abstracts intelligible species and to which it must attend to grasp particulars.[13]

Descartes, in contrast to Aquinas, recognizes only one kind of *per se* subsistence. The kind of *per se* subsistence he recognizes is the ability to exist without existing in a subject, which he thinks is sufficient to count as a substance (AT VII 434; CSM II 293).[14] He thinks hands and minds have this kind of *per se* subsistence and thus are substances (AT VII 222; CSM II 156–7), and he thinks that if the scholastics were correct that some qualities can exist apart from a subject, they, too, would count as substances.

I think readers of Descartes have gone astray in reading him as holding that the mind has *per se* subsistence in Aquinas's strong sense. He is read, in other words, as attributing to minds the same sort of ontological status that Aquinas attributes to human beings, plants, and animals. It is almost universally agreed that something that subsists *per se* in the strong sense cannot itself be a constituent of a substance, and this explains why so many readers of Descartes have been blocked from seeing that he thinks that a human being can still be a substance even though it has the mind as one of its constituents. However, something that merely subsists *per se* in the weak sense without subsisting completely in the nature of a species can, at least Aquinas thought, still be a constituent of a substance. So the fact that a hand exists without existing in a subject or that the human soul does or can exist without existing in a subject and has a *per se* operation is no obstacle to the human being of which they are constituents itself being a substance.

Now one might think that Aquinas is wrong in maintaining that something that subsists *per se* in the weak sense or that has a *per se* operation can still be a constituent

of a substance. So if the problem with dualism is that it cannot account for the substantiality, that is, the unity, of a human being, then Aquinas is as much a villain as Descartes is typically portrayed as being. Indeed, he might be even a worse villain since it is less clear that he is committed to the view that the mind actually exists in the body as in subject. But John Carriero, in his insightful analysis of how Descartes's account of the functioning of the soul differs from Aquinas's, has provided possible grounds for defending Aquinas and leaving Descartes intact as the primary villain.[15]

Carriero argues in effect that even though Descartes and Aquinas are alike in holding that the human soul has a *per se* operation and thus can exist without existing in a subject, there is still a big difference between them because Aquinas holds that when the soul is separated from the body it can fulfill its function of knowing only in an unnatural way, whereas Descartes holds that the pure understanding functions naturally even when the soul is separated from the body. The reason for this difference, according to Carriero, derives from their opposing views regarding abstraction. Aquinas thinks that in order to fulfill its function naturally the human soul requires phantasms, which are dependent on the body, from which it abstracts intelligible species. For the soul to be able to understand when it is apart from the body and thus denied access to phantasms requires species received by the influence of the divine light, which yields only general and confused knowledge.[16] Thus in its unnatural state the soul functions suboptimally. Descartes rejects the theory of abstraction, however, maintaining that the elements of thought are innate to the mind. Thus, whether united to or separated from the body, the mind is capable of thinking perfectly well.

One might then argue, taking one's prompt from Carriero's analysis, that something that has a *per se* operation but cannot function naturally apart from the body is sufficiently unrobust that it can be united to the body to constitute something that is a substance, whereas something that has a *per se* operation and can still function naturally apart from the body is sufficiently robust that it no longer can unite with the body to constitute something that is itself a substance. Aquinas, in virtue of holding the former view of the soul, can accordingly maintain that the human being is a substance. Descartes, in virtue of holding the latter view of the soul, cannot.

In defending the view that Descartes thinks the human being is a substance, I have pointed to a passage in the *Letter to Father Dinet* in which he endorses the view that the mind has a natural aptitude to be united to the body:[17]

> therefore, they [the proponents of the thesis that the union of mind and body arises *per accidens*] denied neither the substantial union by which mind is conjoined to body nor the natural aptitude of each part to that union, as is clear from that fact that they added immediately afterwards: "those substances are called incomplete in relation to the composite which arises from their union." (AT VII 585; HR II 363)

Here Descartes argues that since mind and body are incomplete in relation to the composite human being, it follows that they have a natural aptitude to be united.

What is striking here is that in justifying his claim that the mind has a natural aptitude to be united to the body, there is no appeal to the claim that the mind has an operation that naturally depends on the body. Instead, he appeals to the claim that mind and body are incomplete with respect to the composite human being.

What does this difference reveal about Descartes's relation to the Aristotelian tradition and about the plausibility of interpreting him as maintaining that the human being is a substance? The tradition of linking the ability to exist separately with the ability to function or operate independently goes back to Aristotle's *On the Soul*. Aristotle says that "[i]f there is any way of acting or being acted upon proper to soul, soul will be capable of separate existence; if there is none, its separate existence is impossible."[18] In arguing that the human soul has a *per se* operation apart from the body and inferring from this that it can exist separately from the body, Aquinas is thus following Aristotle's lead. Moreover, again in the Aristotelian tradition, Aquinas focuses on an operation of the soul—understanding—that he conceives as intimately connected to our function in the sense of our purpose. Descartes, in contrast, because he maintains that final causes are inscrutable to us, does not attribute functions (in the sense of purposes) to minds or bodies or human beings.[19] Accordingly, Descartes does not explicitly appeal to the function of the mind and body in arguing that they are capable of existing separately. Nevertheless, one might have expected someone as sensitive as he was to the Aristotelian tradition to try to show that mind can exist separately from the body by arguing that it can function independently of the body, that is, that it can act or be acted upon without the body. However, in a significant but rarely discussed passage, Descartes strongly suggests that his argument for real distinction does not depend on the mind's ability to function or operate separately from the body. Gassendi had objected to Descartes's argument for real distinction, first, by alleging that Descartes has not offered a criterion to show that his nature is incorporeal, and second, by asserting that the proper criterion to show that his nature is incorporeal is that the mind has some operation that takes place independently of the brain (AT VII 269; CSM II 188). Descartes's response is as follows:

> In fact I did frequently provide a criterion to establish that the mind is different from the body, namely that the whole nature of the mind consists in the fact that it thinks, while the whole nature of the body consists in its being an extended thing; and there is absolutely nothing in common between thought and extension. I also distinctly showed on many occasions that the mind can operate independently of the brain; for the brain cannot in any way be employed in pure understanding, but only in imagining or perceiving by the senses. (AT VII 358; CSM II 248)

The first part of his response is to assert that he has offered a criterion to show that the mind is something other than body. The criterion is that the whole nature of mind consists in the fact that it thinks and that the whole nature of body consists in the fact that it is extended, and that thought and extension have nothing in

common. The second part of his response is to assert that he has in fact also satisfied Gassendi's criterion. He has shown that the mind can operate independently of the brain because the brain cannot be employed in pure understanding. What is interesting in this response is that while Descartes apparently thinks it is important to be able to meet Gassendi's criterion, he treats it as if it is independent from his own criterion for real distinction. He suggests, in other words, that he thinks he can show that mind and body are really distinct without showing that the mind can operate independently of the brain. What provides the basis for real distinction is that the mind can exist apart from a subject without extension existing in the mind, not that the mind can operate independently of extended things. Thus I read Descartes as at once distancing himself from the Aristotelian criterion for determining when things are separable as different from his own criterion and at the same wanting to show that his account of mind can meet the Aristotelian criterion.

Given this partial distancing from Aristotle's criterion for separability, one can understand that Descartes similarly might not try to justify a claim that parts of a whole have a natural aptitude for union by appeal to the dependency of some of the operations of one part on the other part. Instead, in the *Letter to Father Dinet* he argues that parts have a natural aptitude to be united because they are incomplete with respect to the whole that they compose. It is hard to know what Descartes has in mind here. Perhaps he is alluding to the Thomistic notion that the parts are incomplete in the nature of the species. Perhaps not. If not, one wonders what it is about parts that would justify a conclusion that they have a natural aptitude to be united.

The notion of the parts of a whole having a natural aptitude to be united would seem to be ambiguous, and Descartes does not elaborate on what he means. It could mean, first, that the parts have a natural tendency to be united, or second, that it is fitting or appropriate for them to be united. In the remainder of this essay, I will make use of these two possible accounts of what it is to have a natural aptitude for union to explore the question whether Descartes can give a satisfactory argument that the parts of a whole, in particular mind and body, in spite of being able to exist separately, do have a natural aptitude for union.

From a commonsense point of view, the parts of artifacts might fail to have a natural aptitude to be united in either sense—they might not have a natural tendency to be united, and it might not be appropriate for them to be united. But it would seem from a commonsense point of view that the parts of wholes that are not artifacts but instead products of nature do have a natural aptitude to be united in both senses. So unless we attribute to Descartes the view that a human being is some sort of weird artifact—that God in attaching a mind to a body would put together beings that are not appropriately united—then he is perfectly justified in claiming that as parts of a human being, mind and body have a natural aptitude to be united, at least in the second sense.

Given Descartes's reluctance to distinguish between artifacts and products of nature, I believe he would claim that the parts of any body, whether an artifact or a product of nature, have a natural aptitude to be united in the sense of having a tendency to remain united. Descartes is committed to the view that a body consists of parts partaking in the same motion (AT VIIIA 53–4; CSM I 233), and since bodies partaking in the same motion have a tendency to move in the same straight line (or if the body is at rest, those parts have the same tendency to remain at rest), it follows that they have a tendency, following from the laws of nature, to continue to be united. The idea here, then, is that once united, parts of matter have a tendency based on the laws of nature to continue to be united and in that sense they have a natural aptitude to the union.

This is certainly weaker than saying that a part of a body, considered by itself apart from the whole body or prior to being united to and subsequent to being separated from the other parts, has a tendency to be united to those other parts. It is only on being united that the parts have a natural tendency to remain united. But we should not expect a body to have a natural tendency to be united to other bodies before it is united to them—so the bread that I eat does not have a natural tendency to be united to the other parts of my body before I eat and digest it.

One might object that such an attempt on Descartes's behalf to account for the natural tendency of parts of bodies to be united by appeal to the law of inertia is inadequate to the task. The basis of such an objection, I presume, would be the notion that a natural tendency for union requires at a minimum that the parts cohere, that they resist being separated. Descartes could respond that inertia, the tendency of bodies at rest relative to another to remain at rest (and we may add, the tendency of parts of bodies moving together to continue in that motion) is sufficient to account for their tendency to resist being separated (AT VIIIA 71; CSM I 246).

If having a natural aptitude to union in the first sense of having a tendency to be united requires resisting being separated, is it true that the Cartesian mind and body resist being separated? Descartes is committed to the view that in order to receive and retain a mind naturally as opposed to miraculously, matter has to be fitly disposed (AT XI 330; CSM I 329, a5). This falls short of saying that the fitly disposed matter resists being separated from the mind, but on the other hand it does suggest that there are some bodies that, considered in themselves, are such that it is natural for them to receive and retain a mind. Indeed, he says in his letter to Mesland that we think that the human body is "whole and entire so long as it has in itself all the dispositions required to preserve that union [with the soul]" (AT IV 167; CSMK 243). Thus human bodies have a natural aptitude to be united to minds, in the sense that is fitting or appropriate for them to be united to the mind. One of the fitness conditions of a human body for receiving a mind is that it has to be alive, though presumably not any living body is appropriate for receiving a mind. However, Descartes does seem to leave it open as an empirical question to

be determined by his two tests—the language test and the behavior test—whether God has attached minds to other living things besides human bodies (AT VI 56–9; CSM I 139–41).

But what about the natural aptitude of the mind to be united to the body? Is it appropriate or fitting for it to be united to the body? Does it resist being separated from fitly disposed matter to which it has been united? I think the answer has to be that it is fitting for the mind to be united to the body for the reason noted earlier—it would shocking for Descartes to say that God in the normal course of things would unite minds to bodies when it is not fitting for them to be united. I think the answer to the final question also has to be yes. Descartes maintains that God has constructed us in such a way that we have pleasant sensations that prompt us to pursue things beneficial to the composite human being and unpleasant sensations that prompt us to avoid things harmful to the composite.

My conclusion is that Descartes does have a plausible justification of the claim that mind and body have a natural aptitude to be united, in spite of their ability to subsist *per se* apart from each other, that is independent of any appeal to the functioning of mind or of body. But even if there is plausibility to this justification, one might want a fuller explanation of why it would be fitting or appropriate for God to unite the mind to the body.

In light of Descartes's reluctance to treat of final causes, we should not expect to look for an answer to this question by appeal to the function of the mind. If anywhere, we should look to its nature.[20] According to his argument for real distinction, the nature of the mind is such that it does not depend on the body. So what about the nature of mind could make it fitting for it to be united to the body?

Descartes tells us in the *Second Meditation* that a thinking thing is a doubting, understanding, affirming, denying, willing, unwilling, imagining, and sensing thing (AT VII 28; CSM II 19). Later, in *The Passions of the Soul*, we find out that some of its sensations are passive emotions or passions (AT XI 349–50; CSM I 338–9, a27–8) but that other emotions are excited in the soul only by the soul (AT XI 396–7; CSM I 360–1, a91: AT XI 440–1; CSM I 381, a147), so that they would therefore count as actions (AT XI 342; CSM I 335, a17). In the S*econd Meditation*, Descartes is not, contrary to possible appearances, defining a thinking thing in terms of what it does. All the items on the list are what he calls modes of thought, and it would be backwards to define the nature or essence or principal attribute of something by means of listing the various modes of it. Rather, Descartes intends to use the word 'thinking' with the same narrow meaning as that of his Aristotelian predecessors. This becomes clear in the *Sixth Meditation* when he alleges that imagining and sensing are faculties for certain special modes of thinking because "they include in their formal concept some act of the intellect [*nonnullam intellectionem*]" (AT VII 78; CSM II 54). This important passage makes it evident that Descartes differs from his Aristotelian predecessors not by redefining thinking, but rather by maintaining that imagining and sensing are themselves acts of thinking.[21]

Here, then, is a possible source for an account of why it is fitting or appropriate for mind to be united to body and thus for why it is that mind has a natural aptitude to be united to body in that sense. Even if the mind has no function or at least has no function identifiable by us, it seems fitting or appropriate that it be situated in such a way that it be capable of having all the various modes of thought. And in both the *Sixth Meditation* and the *Principles*, Descartes strongly suggests that imagining and sensing arise from the union of mind and body. In the *Sixth Meditation* he tells us that we can know we compose one thing (*unum quid*) with our body because we have sensations of pain, hunger, and thirst (AT VII 81; CSM II 56), and he hypothesizes that we imagine by turning toward a body to which we are conjoined (AT VII 73; CSM II 51). In the *Principles*, he says appetites, sensations, and passions arise from the close and intimate union of mind with body and that the passions do not consist in thought alone (AT VIIIA 23; CSM I 209). In *The Passions of the Soul*, he defines passions in part by their being caused, maintained, and strengthened by the motions of the animal spirits (fine parts of the blood that flow through the brain's cavities, the nerves, and the muscles) (AT XI 349; CSM I 338–9, a27).

It is true that in the *Second Meditation* Descartes, aiming at the point that we could sense even if there were no bodies, redefines sensing in terms of its seeming to him that he sees, hears, and grows warm (even if these are false) (AT VII 29; CSM II 19). But this claim is made before he has proved that God exists and is not a deceiver, and in light of his subsequent argument in the *Six Meditation* that we can infer from the fact that we have sensations of pain, hunger, and thirst that we are united to the body, he seems committed to the view that the existence of these modes of thought depends not just on the mind but on its union with body.[22]

Thus Descartes is in a position to explain the natural aptitude of mind to be united to the body. First, the mind has a tendency to union because God has given us sensations of pleasure and pain that prompt us to act in ways that conserve the mind's union with the body. Second, it is fitting that the mind be united to the body because a mind is a thinking thing and because some modes of thought—sensations, appetites, passions, and acts of the imagination—are possible only due to the mind's union with the body. I see this second part of the explanation as fundamentally Aristotelian, because it amounts to saying that some of the things the mind does or undergoes require union with the body.

It is instructive to make a comparison with Descartes's account of angels. He does not say much about angels, but he does say that if an angel were in a human body, it would not have sensations as we do (AT III 493; CSMK 206). This, combined with the *Sixth Meditation* claim that we know because of our sensations of pain, hunger, and thirst that a human mind together with the body composes one thing (AT VII 81; CSM II 56), strongly suggests that an angel in a human body would not compose one thing. So the clear implication is that an angel, unlike a human mind, does not have natural aptitude to be united to the human body.

This raises the question, in light of my earlier argument that the reason it is fitting or appropriate for a human mind to be united to the body is that that renders the mind capable of having all the various modes of thought, why then isn't an angel defective or deficient if it is not capable of all the various modes of thinking? Descartes does say that angels are incomparably more perfect than human beings (AT V 56; CSMK 322), so he clearly does not think that if they were to lack sensations they would be defective. However, once sensations are taken to be modes of thought, it is hard to see why lacking them should not count as an imperfection in a being whose essence is thinking. The scholastics do not have this problem because they distinguish sensations from thought. On the contrary, attributing sensations to human beings and not to angels helps them explain why angels are more perfect than human beings. In response to Henry More's question whether angels have sensations in the strict sense, Descartes says that we cannot tell by natural reason whether angels are like (human) minds distinct from bodies (in which case they would not have sensations) or (human) minds united to bodies (in which case presumably they would) (AT V 402; CSMK 380). This is a sensible response, but it would have been more satisfying if Descartes had been in a position to explain the difference between human and angelic thought that would enable us to understand why sensations are not modes of angelic thought, if in fact they are not.

Since my proposed defense of the claim that the human mind has a natural aptitude to be united to the body relies on this premise that sensing and imagination are modes of thought, or at least of human thought, it would not be satisfactory to Descartes's scholastic predecessors. This raises the further question whether Descartes also has resources available that might persuade someone approaching these issues from a Thomistic perspective that the Cartesian mind has a natural aptitude to be united to the body.

Suppose for the sake of argument that Descartes were to take on board, even though I have claimed that he does not, the Thomistic notion that the mind has a function and that its function is that of knowing. Is there something about the Cartesian mind conceived as having its function to be that of knowing that does not undermine the argument that mind is capable of existing apart from the body and yet can still support the claim that it is natural for it to be united to the body? That is, as we are approaching the question now, is there something that the mind is capable of knowing independently of its being united to the body (which would support the possibility of the mind's existing separately from the body) and is there something that it is the function of the mind to know that requires that it be united to the body (which would support the claim that it is natural for the mind to be united to the body)?

Carriero focuses on the Thomistic view that the function of the mind is to grasp the natures of things. His contrast between Aquinas and Descartes centers on the fact that Aquinas thinks that in our natural state we can grasp natures only by means of abstraction and only while attending to phantasms, which depend on the body,

whereas Descartes thinks we have an innate idea of extension that enables us in our natural state to grasp the nature of bodies independently of the senses and hence independently of being united to a body.

But Aquinas thinks, as Carriero certainly recognizes, that it is the function of the mind not only to grasp the natures of things, which requires that we grasp them as universals apart from matter, but also to grasp the natures of things as they exist in particulars. So in the *Summa Theologica*, he asserts that the "proper object of the human intellect is a quiddity or nature existing in corporeal nature" and that "the nature of…a material thing cannot be known completely and truly, except in as much as it is known as existing in the individual."[23]

If we suppose, for the sake of argument, that Descartes were to grant what he does not grant, that the function of the human mind is to know the natures of material things as existing in individuals, then he could argue that knowing requires the senses. Even though Descartes thinks we can grasp extension by means of an innate idea independently of abstraction and thus independently of the senses, he also thinks we can have knowledge of particular bodies only by means of the senses (AT VII 80; CSM II 55–6). Therefore, grasping extension as existing in a particular body would require on the Cartesian account of mind just as much as on the Thomistic account that we have senses and thus that we be united to our bodies.[24]

This page intentionally left blank

PART II

Causation

This page intentionally left blank

7

The Union and Interaction of Mind and Body (Part 2)

The Aristotelian model of causation with which Descartes was familiar is far different from our post-Humean model of causation. After Hume, the paradigm example of causation is one billiard ball striking another and the second billiard ball rolling away. In such a case there are two events, where the prior event is the cause of the subsequent event. For the Aristotelians, a paradigm example of causation would be a person lifting a vase. The effect is the vase's being lifted, and the cause could be viewed either as the person doing the lifting or the person's act of lifting. In such a case, it would be wrong to say that the effect is an event or process subsequent to the cause. The vase's being lifted is not temporally subsequent to the person's act of lifting (nor would we say it is subsequent to the person). Indeed, the stronger claim can be made that in such a case, there is really only one event or process. The person's lifting of the vase is not a different event or process from the vase's being lifted. This Aristotelian model of causation is characterized by the doctrine of the identity of action and passion: the agent's action is one and the same change as the passion undergone by the patient.

Until fairly recently, probably due to their failure to pay close attention to *The Passions of the Soul*, commentators have overlooked the fact that Descartes embraces the Aristotelian model of causation. But he does so in the first two articles of *The Passions of the Soul*.[1] In the first article, he states the doctrine of the identity of action and passion:

> I note that whatever takes place or occurs is generally called by philosophers a passion with regard to the subject to which it happens and an action with regard to that which makes it happen. Thus, although the agent and the patient are often quite different, the action and the passion must always be a single thing which has these two names on account of the two different subjects to which it may be related. (AT XI 328; CSM I 328)

Lest there be any doubt that Descartes is merely attributing the doctrine to others and not embracing it himself, he employs it in the second article:

> Next, I note also that we do not notice that there is any subject which acts more immediately upon our soul than the body to which it is joined. We should consequently recognize that what is a passion in the soul is usually an action in the body. (AT XI 328; CSM I 328)

Descartes reveals in this second article that he has modified the doctrine in a significant way. Whereas the Aristotelians had located the agent's action in the patient, on the grounds that the change was located in the patient and not in the agent bringing about the change, Descartes locates the agent's action in the agent. Thus Descartes is committing himself to the view that when an agent acts on a patient, that event or process exists in both subjects simultaneously. Since events for Descartes (at least those in the created world) are all going to fall under his ontological category of modes, this has the implication that there are modes that belong to two subjects at once, or straddling modes. When the body acts on the mind, that straddling mode will be a motion insofar as it is an action existing in the brain (Descartes notoriously attributes the relevant brain motions to the pineal gland), and it will be a sensation or passion of the soul insofar as it is a passion existing in the mind. When the mind acts on the body, the straddling mode will be a volition insofar as it is an action in the mind, and it will be a motion (again of the pineal gland) insofar as it is a passion in the body.

How does a particular type of action come to be paired with a particular type of passion? That is, why is one kind of brain motion the same event as my sensation of red and another kind of brain motion the same event as my sensation of yellow? Why is one kind of volition the same event as a part of my brain moving in one way and another kind of volition the same event as a part of my brain moving in another way? Descartes's view is that originally these pairings are all natural, that is, they are forged by God's will. What has only recently begun to be discussed by commentators is that Descartes also thinks that we can alter at least some of these pairings by means of what he calls habituation.[2] He argues that by techniques we would classify under the heading of behavior modification, a kind of brain motion that naturally causes a given passion such as fear or anger can be made to bring about some other passion. Indeed, this is the key to our freedom, or at least it is the key to freedom for those of us with weak souls. Descartes thinks that to be free we must be able to act in accordance with our firm and determinate judgments concerning good and evil. People differ in their strength of soul, and the firm and determinate judgments of people with weak souls are overpowered by their passions. But if we can control which passions we have by means of habituation, then we can prevent ourselves from being overpowered by undesirable passions.

What has been referred to as the downfall of Cartesian metaphysics is the history of objections to Descartes's account of mind-body causal interaction.[3] How could

an immaterial substance produce changes in the body and how could the body produce changes in an immaterial mind? My view is that it is one of the deepest ironies in the history of philosophy that the problem of interaction has been so influentially deployed in the attempt to make Descartes look worse than other philosophers.

Consider the philosophical landscape before Descartes. His Aristotelian predecessors drew a sharp distinction between self-movers and non-self-movers that coincided with the distinction between living things and nonliving things. They argued that the principle of movement in a self-mover could not be a body, but had to be its form, that is, its soul. In the case of human beings, the soul was considered to be wholly immaterial. Descartes came along and made a radical claim. He asserted that there can be self-movers, most notably watches and animals, that lack souls. Their internal principle of movement is entirely corporeal. It is this radical view that one would have expected Descartes to be challenged on, but instead he was attacked precisely for what he retained of his predecessors' theory, namely, that an immaterial principle can be the source of self-movement.

Not only is Descartes's account of the explanation of our capacity for self-movement no worse than that of his predecessors, I would argue that we are deluding ourselves if we think we have made any significant progress since Descartes in providing a satisfactory account of agency. It is one of the most fundamental features of human existence that we can move parts of our body. We know that in order to do this we have to get parts of our brains to move. How do we get the right parts of our brains to move? Descartes's answer, again fundamentally the same as that of his predecessors, appeals to the notion of the will. His view is that we can form volitions to do things, and these volitions are acts of the mind that terminate in the body, that is, the passion with which they are paired is the appropriate brain motion. We might think of these volitions, for Descartes, as tryings. If I try to move my tongue in a certain way, that trying is paired with the appropriate pattern of neurons firing (according to the doctrine of the identity of action and passion, my trying to move my tongue in a certain way is the same event as those neurons firing). Again, on Descartes's view, habituation can lead to rewiring. Instead of being paired with trying to move my tongue in a certain way, that pattern of neurons firing could come to be paired with my trying to utter a particular word.

It seems to me that Descartes is probably correct that if we are to be considered the causes of our bodily motions, there must be something more basic that we can do—whether we describe this as willing to do something or trying to do something—by means of which we get our brains to move in the right way. I do not see any philosophically superior alternatives. For example, one might try to claim that the most basic thing we do is to move the relevant parts of the brain and we can dispense with the notion of willing or trying as a more basic action. But I don't see this as an improvement in terms of explanatory power, because the suggestion that the most basic thing we do is to move parts of the brain seems at least as mysterious as the suggestion that the most basic thing we do is to will to do things or to try to

do things. Or, again, one might try to account for agency by giving up the notion of agent causation entirely, that is, by denying that at the most fundamental level of explanation I do things and instead adopting a Humean model according to which the self and its agency are analyzed in terms of sequences of events. This is the main path analytic philosophy of mind seems to have taken, but I think that such attempts to provide reductive analyses of agency turn out to be eliminative accounts (that is, accounts according to which the thing being analyzed turns out not to exist).

Gilbert Ryle's objection that accounts of the mind's action on the body like Descartes's lead to an infinite regress is not convincing.[4] Just because Descartes would appeal to volitions or tryings as the most basic actions that bring about voluntary bodily motions does not imply that other volitions or tryings are required to bring about those volitions or tryings. But it is true that agency would in the end be something brute and unanalyzable—the very notion of a most basic action requires this. This is not to say that there can be no causal explanation of why we will or try to do something. Descartes is committed to the view that so long as we have a clear and distinct idea that some action is good, we will be compelled to will or to try to do that thing.[5]

With regard to his account of the body's action on the mind, Descartes deserves credit both for eliminating the scholastics' sensible species (those sensible, immaterial forms that were thought to be emitted by the sensible object and received in the sense organs) and for recognizing that sensations and emotions have as their immediate cause motions in the brain. To keep things in perspective, it is important to bear in mind that several of Descartes's successors adopted radical and counterintuitive positions when it comes to the possibility of the body's action on the mind. Spinoza and Leibniz denied that bodies can be the causes of thoughts of any kind, including sensations. Berkeley and Reid argued that only beings with a will are capable of being causes. Malebranche argued that only God can be a cause.

To be sure, Descartes's account of why particular types of brain motions are paired with particular types of sensations or passions—that they were willed to be that way by God or hooked together by habituation—is not satisfactory. But many contemporary philosophers would acknowledge that we still do not have a better account and that the prospects for finding one are dim.

Let me conclude by noting an ironic misconception of Descartes in popular culture. By distinguishing mind from body, Descartes is commonly thought to have mistakenly led people to believe that our bodily health is independent of our state of mind. But in fact Descartes's view is that our bodily health depends not only on our passions but also on our beliefs. So he wrote to Princess Elizabeth that there is "no thought more proper for preserving health than a strong conviction and firm belief that the architecture of our bodies is so thoroughly sound that when we are well we cannot easily fall ill" (AT V 65; CSMK 237).

8

Cartesian Passions and Cartesian Dualism

Descartes's most famous and important metaphysical thesis is mind-body dualism. Mind and body are distinct substances having different natures or essences. The essence of mind is the attribute thought, and the essence of body is the attribute extension. All the non-essential properties of a created substance, or at least those in virtue of which it is modified or affected, have a special relation to the essential attribute of that substance. They are modes of that attribute. For example, doubting that God exists, which is a non-essential property of a mind, is a mode or way of thinking. Similarly, being square, which is a non-essential property of a body such as a piece of wax, is a mode of extension or a way of being extended. Since mind and body are the only two kinds of created substances, all the properties that modify created substances are thus either ways of thinking or ways of being extended.

This sharp dichotomy of properties into two kinds—those that are modes of thought and those that are modes of extension—provides the foundation for our modern concepts of the mental and the physical. In particular, the distinguishing property of living things, nutrition, which is thought by the Aristotelians to arise from a psychic principle, is moved entirely to the side of the physical or material; and sensation, characterized by Aquinas as occupying a halfway state between the material and the immaterial, is moved to the side of the mental or immaterial.[1] Moreover, qualities such as color, sound, heat, odor, and taste, which are not ways of being extended and hence not physical, are alleged to be sensations existing only in our thought (AT VII 440; CSM II 297: AT V 292; CSMK 369).

In this essay, I want to challenge the familiar view just sketched that Descartes thinks all modes are either purely mental or purely physical. The key text in defense of my interpretation has been strangely ignored. Parts of it are quoted occasionally, but until Marjorie Grene's recent book, I knew of no other commentator who attempted to give an analysis of it.[2] The lack of attention given to it is all the more surprising in light of its location in the Cartesian corpus. It consists of the first few

articles of *The Passions of the Soul*, the work in which Descartes, under fire from his critics, offers his final and most complete account of mind-body interaction. It must therefore be taken as his definitive word on the subject and for that reason alone merits serious attention. But besides that, it is one of the most intriguing passages in the entire Cartesian corpus, raising issues not only about Descartes's own views but also about his relation to his predecessors and his successors.

What Descartes says in the opening article of the *Passions* is this:

> I note that whatever takes place or occurs is generally called by philosophers a passion with regard to the subject to which it happens and an action with regard to that which makes it happen. Thus, although the agent and the patient are often quite different, the action and the passion must always be a single thing which has these two names on account of the two different subjects to which it may be related. (AT XI 328; CSM I 328)

Descartes is asserting here that an action that is referred to one subject as the cause or agent is the same thing as the passion that is referred to another subject as the patient. This doctrine of the identity of an action and a passion that are referred to different subjects may seem peculiar from our post-Humean perspective on causation, but it is not a doctrine invented by Descartes in a desperate attempt to defend his account of mind-body interaction. On the contrary, the doctrine has its roots in Aristotle. In the attempt to understand how Descartes understands the doctrine, it is useful to begin by looking at Aristotle.[3]

The example Aristotle himself uses to illustrate the doctrine is that of teaching and learning. He argues that teaching, which is an action, and learning, which is a passion, are not two distinct movements or changes (*kineseis*), even though teaching is referred to one subject, the teacher, and learning is referred to another subject, the student. Although teaching and learning are one and the same actuality (*energeia*), teaching is not learning.[4] So the identity here is a sort of double-aspect identity. Teaching and learning are, we might say, different aspects of or ways of looking at the same actuality. To learn is to undergo an alteration, that is, a change in the category of quality; in particular, it is to acquire knowledge. To teach is not to acquire knowledge, nor is it to undergo any alteration; it is to bring about the acquisition of knowledge.

Where is this change located? According to Aristotle, it is located in the student. It is located in the student, because it is the student who undergoes an alteration in virtue of learning, not the teacher in virtue of teaching. So the teacher's teaching, which is the same actuality as the student's learning, is located in the student.

The doctrine of the identity of action and passion also finds an important application in Aristotle's theory of perception. He asserts that the activity of the object of perception is located in that which can perceive.[5] Thus he applies the doctrine not just to movements or alterations but also to activities. Sensing, unlike acquiring knowledge, but like applying knowledge already acquired, is an activity and not an alteration.[6]

Descartes does not say that the action is one and the same activity as the passion, nor does he say that the action is one and the same movement or change as the passion. Descartes says that the action is one and the same thing (*chose*) as the passion. His use of the word 'thing' (*chose*) may seem to be of little significance, but in fact it has important implications. He says in the *Principles*, part II, article 55, "And besides substances and their modes, we recognize no other kinds of things" (AT VIIIA 71; CSM I 246).[7] Since action and passion cannot plausibly be identified with substance, it can safely be inferred that he thinks action and passion are one and the same mode.[8] That this is so is confirmed, first, by his assertion that the soul's actions are volitions and its passions are perceptions (AT XI 342; CSM I 335), and second, by his assertion that in corporeal things, action and passion consist in local motion alone (AT III 454; CSMK 199)—he thinks volitions and perceptions are modes of thought (AT VIIIA 17; CSM I 204), and he takes local motion to be a mode of extension (AT VIIIA 54; CSM I 233).

Descartes's use of the term 'thing' instead of 'movement' or 'change' or 'activity' also reflects some fundamental differences with his predecessors. First, since local motion is the only kind of movement he recognizes (AT XI 39–40; CSM I 94), he thinks that none of the soul's actions or passions is itself a movement but only something analogous to movement (AT III 454; CSMK 199).[9] Second, although he thinks that a substance is affected or changed by its modes (so that God has no modes), a mode need not itself be a change (AT VIIIA 26; CSM I 211). As Alexandre Koyré has argued, one fundamental difference between Cartesian and Aristotelian metaphysics is Descartes's coming to view local motion not as a change in a body but as a state of a body, which, like shape, will continue the same unless that body is changed by other bodies.[10] If Koyré's point could be generalized, then no Cartesian mode and hence no passion would itself be a change, but instead we would say that a substance changes in having different modes. There is, however, important evidence that Koyré's point should not be generalized. Later in the *Passions*, Descartes says that all the changes that take place in our soul are thoughts (AT XI 350; CSM I 339).

In the second article of the *Passions*, Descartes applies the doctrine of the identity of action and passion to the action of the human body, in particular the pineal gland, on the mind. "Next, I note also that we do not notice that there is any subject which acts more immediately upon our soul than the body to which it is joined. We should consequently recognize that what is a passion in the soul is usually an action in the body" (AT XI 328; CSM I 328). Descartes is asserting here that the pineal gland's action is one and the same thing as the passion in the mind, where the passions include sensations, appetites, and emotions. But the most important thing to notice about his assertion is the way it appears to deviate from the Aristotelian theory. He does not speak of the action as being in the patient; on the contrary, he describes the action as being in the body, which is the agent. If we take Descartes at his word, he is saying that there is one and the same thing that is in the body and in the mind. And this thing, I have claimed earlier, is nothing other than a mode.

Now this is a very shocking thing for Descartes to be saying, according to the standard understanding of his dualism. If he really means it, it commits him to some startling metaphysical principles. First, it commits him to the principle that there are straddling modes, that is, that a mode (token) can simultaneously be a mode of two substances. Second, it commits him to the principle that there can be a mode that is a mode of both mind and body. Moreover, since he also believes that every mode is a mode of some attribute, and since any mode of body is a mode of extension and any mode of mind is a mode of thinking, it also commits him to the principle that a mode can be a mode of both thinking and extension.

Can Descartes mean what he says? Could he really have been committing himself to the existence of modes straddling mind and body? Isn't this interpretation merely the result of reading the text too literally as saying that the action is in the agent? Isn't it much more plausible to read him more loosely so that he agrees with the Aristotelian view that the action is located in the patient and not in the agent? In that case, the identity of action and passion would not entail the existence of straddling modes, nor would it entail the existence of modes that are modes of both thought and extension.

One important justification for not dismissing the straddling modes interpretation out of hand is that Leibniz takes the doctrine of the identity of action and passion to entail the existence of a being in two subjects at once, like a relation, which is apparently why he rejects the doctrine.[11] So there is a legitimate interpretative question here: does Descartes agree with his successor Leibniz in thinking that the identity of action and passion entails the existence of entities straddling two subjects, or does he agree with his predecessors in thinking that when an agent acts on a patient the agent's action is located solely in the patient?

Given that there is a legitimate issue of interpretation, the literal reading of the second article of the *Passions* not only cannot be dismissed out of hand, but assuming the interpretative principle that a careful philosopher such as Descartes should be taken at his word whenever possible, it becomes the presumptive reading of that passage, to be overruled only by conflicts with the rest of the *Passions* or other Cartesian texts. In fact, however, there are other texts corroborating my claim that Descartes thinks it is important to locate the action in the agent. In his letter to Regius already cited, he says:

> in corporeal things, every action and passion consists of local motion alone, and indeed this motion is called an action when it is considered in the mover and a passion when it is considered in the thing that is moved, from which it follows that when these terms are extended to immaterial things, one must consider something in them analogous to motion, and one must call that which belongs to the mover an action, such as is volition in the mind, and that which belongs to the thing moved a passion, like intellection and vision in the same mind. (AT III 454; CSMK 199)

And in defining movement in the *Principles*, part II, article 25, he says,

> By 'one body' or 'one part of matter' I here understand all that which is transferred at the same time, even if this may in turn consist of many parts which have other motions in themselves. And I say that it is a transference, not the force or action which transfers, in order to show that it [the motion] is always in the mobile thing, not in the thing which moves it (because these two are not usually distinguished with sufficient care); and in order to show that it is only a mode of it, not some subsisting thing, just like shape is a mode of a shaped thing and rest of a thing at rest. (AT VIIIA 53; CSM I 233)

This passage is especially significant in the present context. One of its significant features is that Descartes once again contrasts the location of the action with that of the passion, which in this case he calls the transference. While the passion is located in the patient, that is, the moved body, the action apparently is not. The other significant feature of this passage is that it could easily be read as assuming the falsity of the doctrine of the identity of action and passion. In the first place, he says that these two, the action and the transference, have not been sufficiently distinguished, which seems to imply that he thinks that they are not one and the same. Second, he denies that the transference is in the mover. But if the action is in the mover, and if the action is one and the same mode as the transference, then it would seem to follow that the transference is also in the mover. How can Descartes think it is important to distinguish the action and the passion and refer to them as two, if they are one and the same thing? And how can he deny that the passion is in the agent if he thinks it is the same mode as an action that is in the agent?

It is important to see here that these puzzles do not call into question his adherence to the doctrine; instead they are internal to the doctrine itself. They arise because in the case when one subject acts on another, Descartes wants to say both that the resulting passion is a straddling mode and that it is a passion only insofar as it exists in the patient. Similarly, the action is a straddling mode, but it is an action only insofar as it exists in the agent. But there is nothing contradictory here as far as I can see. It seems perfectly reasonable that Descartes should want to distinguish the two aspects of a straddling mode, that it is an action and that it is a passion. And it is perfectly reasonable for him to say that the passion is not in the agent, if this is understood to mean that the mode is not a passion but only an action insofar as it is in the agent.[12]

Let me try to dispel any lingering doubt here by appeal to an analogy with surfaces. I pick surfaces because Descartes's account of them provides important additional evidence that he thinks there are straddling modes. In defending his explanation of the Eucharist in the *Replies to the Sixth Objections*, he says:

> So to avoid this ambiguity I stated that I was talking of the surface which is merely a mode and hence cannot be a part of a body. For a body is a substance,

> and a mode cannot be part of a substance. But I did not deny that the surface is the boundary of a body; on the contrary it can quite properly be called the boundary of the contained body as much as of the containing one, in the sense in which bodies are said to be contiguous when their boundaries are together. For when two bodies are in mutual contact there is a single boundary common to both which is a part of neither; it is the same mode of each body. . . . (AT VII 433; CSM II 292)[13]

Given, then, that Descartes thinks that a surface is a mode of two contiguous bodies, we can well imagine him saying that the convex and the concave are always one and the same surface, which has these two names, because of the two diverse subjects to which it may be related. I see no difficulty in referring to that surface as the convex and yet saying that since it is the convex only insofar as it belongs to one of the two subjects, it is important to distinguish what belongs to one subject from what belongs to the other.

Why does Descartes think it is important to locate the action in the agent? And given that he does think it is important to locate the action in the agent, why does he still adhere to the identity of action and passion? Why not say that the action and the passion are numerically distinct modes, one in the agent and one in the patient? I will not attempt to answer these questions in any depth here. That would require a separate essay, and my interest here is how the identity of action and passion fits in with Cartesian dualism. I will instead briefly sketch some very tentative answers to them.

The reason Descartes gives in his definition of motion from the *Principles* quoted earlier for locating the transference in the moved thing and distinguishing the transference from the action is that he wants to make it clear that motion is a mode and not a subsistent thing. My guess is that he wants to avoid a theory of impetus, according to which the impetus or force of motion is transferred from the mover to the moved, or a theory according to which motion itself is transferred from the mover to the moved.[14] He would find such theories objectionable because anything that is transferred from one subject to another would be subsistent, that is, it would be a substance and not a mode. As he says in a well-known remark to Henry More, "motion, being a mode of body, cannot pass from one body to another" (AT V 404; CSMK 382). What I am proposing then, is that he adopts the model of straddling modes in order to avoid positing migrating modes, which he finds contradictory.[15] Perhaps even more fundamentally, I don't think Descartes would find it intelligible to follow Aristotle in locating the action of one subject, which he conceives of as a mode of that subject, in another subject. Any mode of a subject must exist in that subject.

Why doesn't Descartes, like Leibniz, simply abandon the doctrine of the identity of action and passion? The answer, I believe, is that Leibniz's rejection of that doctrine goes hand in hand with his rejection of causation between substances, whereas

Descartes wants to preserve such causal relations. In any case, it is clear from the following remarks in a letter to an unknown correspondent that concerns about causation motivate his acceptance of the doctrine:

> When it is said that a spinning top does not act upon itself, but is acted upon by the absent whip, I wonder how one body can be acted upon by another which is absent, and how action and passion are to be distinguished. For I admit I am not subtle enough to grasp how something can be acted upon by something else that is not present—which may, indeed, be supposed not to exist anymore, like the whip if it should cease to exist after whipping the top. Nor do I see I why we could not as well say that there are now no actions in the world at all, but that all the things which happen are passions of the actions there were when the world began. But I have always thought that it was one and the same thing which is called an action in relation to a source [*terminus a quo*] and a passion in relation to an end [*terminus ad quem sive in quo*]. If so, it is inconceivable that there should be a passion without an action for even a single moment. (AT III 428; CSMK 192–3)

Let me use the example of one billiard ball striking another billiard ball at rest to illustrate how Descartes's understanding of the identity of action and passion figures in his account of causal interaction between substances. According to his terminology, the moving ball is the agent or cause; the resting ball is the recipient or patient. At the instant the two balls touch and can be said to be causally interacting—for Descartes cause and effect must be simultaneous (AT VII 108; CSM II 78)—the action in the agent is the very same thing as the passion in the patient. There are two subjects or substances, the two billiard balls, but one mode that is shared by the two of them when they are causally interacting. In case this sounds absurd—how could two bodies heading in different directions have one and the same movement that straddles both—it must be remembered that Descartes distinguishes between motion and its determination in a certain direction and holds that no motion is contrary to another, but only to rest.[16] So it would not be implausible for him to say that at the moment of collision, the two billiard balls share a given quantity of motion.[17]

The same kind of thing is going on with mind and body when we have a passion, that is, a sensation, appetite, or emotion. There are two subjects or substances: the body is the agent or cause, and the mind is the recipient or patient. But there is only one mode, since the action in the agent is the very same thing as the passion in the patient. We give that mode one name insofar as it belongs to the brain, we call it a brain motion, and another name insofar as it belongs to the mind, we call it a passion.[18]

This is the point at which I expect to encounter the most resistance to my interpretation. It is one thing to argue for straddling modes when both subjects are bodies, but it is far more unsettling to suggest that the philosopher often considered to

be the founder of mind-body dualism would countenance the existence of modes straddling mind and body, and consequently, the existence of modes that are modes of both thought and extension. But when one reflects on what Descartes's dualism requires, this suggestion should not be so unsettling. Descartes's dualism requires only that the attributes thought and extension can each be clearly and distinctly conceived without the other, because that entails, he thinks, that mind and body can each be clearly and distinctly conceived without the other. So the only extra condition the existence of straddling modes adds to his argument for mind-body dualism is that we must be able to conceive each attribute clearly and distinctly apart from such modes. And there is no doubt that Descartes believes this. It is well known that he believes that thought, as well as extension, can be clearly and distinctly conceived apart from sensation and imagination (AT VII 78; CSM II 54: AT VIIIA 25; CSM I 211). Thus thought and extension can still be conceived apart from each other, even if sensation, for example, is a mode that straddles mind and body.

It might be objected that I have underestimated the extreme nature of Cartesian dualism. Descartes believes not just that thought and extension can exist apart, but that they must exist apart, because they are incompatible. Anything to which thinking pertains is non-extended, so anything to which thinking and extension pertained would be both extended and non-extended. A mode straddling mind and body is therefore impossible, for it would have incompatible features. It would have to be both a way of being extended and a way of being non-extended.

My response to this objection is that Descartes believes that the attributes thought and extension are incompatible only in a simple subject, not in a composite subject. As he says in his *Comments on a Certain Broadsheet*:

> Of the other attributes, which constitute the natures of things, it cannot be said that those which are different, and of which neither is contained in the concept of the other, come together in one and the same subject; for this is the same as if it were said that one and the same subject has two different natures, which involves a contradiction, so long as it is a question, as it is here, of a simple and not a composite subject.…
>
> The second point which I would wish to be noted here is the difference between simple and composite beings. A composite is that in which are found two or more attributes, each of which can be distinctly understood without the other: for from this, that one is so understood without the other, it is known not to be a mode of it, but a thing or attribute of a thing which can subsist without the other. A simple being, on the other hand, is that in which such attributes are not found. Hence it is clear that that subject in which we understand only extension, with the various modes of extension, is a simple being, so too is a subject in which we recognize only thought with the various modes of thought. But that in which we consider extension and thought together is a composite: namely, a man, which is composed of soul and body,

> which our author seems here to take solely for a body of which the mind is a mode. (AT VIIIB 349–51; CSM I 298–9)

I have argued elsewhere that Descartes thinks that a human being, while a composite, is itself a substance and not a mere aggregate.[19] Therefore, he does in fact believe that extension and thought can pertain to one and the same substance, provided that it is not simple. Since it is consistent with Cartesian dualism that thought and extension pertain to one and the same substance, one should not hastily conclude that Cartesian dualism precludes modes that are modes of both thought and extension.

There is another more serious way in which it might seem I have underestimated Cartesian dualism. Although it is true that Descartes says in the *Sixth Meditation* that thought can be clearly and distinctly conceived apart from sensation and imagination, his account of himself in the *Second Meditation* seems to support a more robust dualism. In arguing that he is a thinking thing, he distinguishes sensing from thinking and claims that he can be certain only that he thinks, not that he senses (AT VII 26–7; CSM II 18). Sensing fails the test of certainty, along with nutrition and movement, in part because one cannot sense without body. But then having established that he is a thinking thing, he turns around and includes in his definition of a thinking thing that it senses. In order to avoid contradiction, he explicitly redefines sensing in such a way that we can be certain that we sense even supposing that there are no bodies. He says that properly speaking, sensing is seeming to hear, to see, to grow warm (AT VII 29; CSM II 19), and that, taken so precisely, it is nothing other than thinking. Doesn't that exclude the possibility of sensation being a mode that straddles mind and body?

There are actually two distinct objections here to the straddling modes interpretation. One is that Descartes thinks sensing is nothing other than thinking; the other is that he thinks we could sense even if there were no bodies and no extension. These objections merit separate treatment. But first it is necessary to note an important ambiguity in my interpretation up to now. Sometimes I have spoken as if Descartes conceives of actions and passions as modes, but other times I have spoken as if he conceives of them as aspects of modes. Can these two ways of speaking be reconciled? Is there a place in Cartesian metaphysics for aspects of modes?

I can think of four possible accounts of aspects of modes. I will present them in order, beginning with the most ontologically thick account of aspects, but I will not attempt to reach a final judgment as to which is best. Along the way, I will discuss their accompanying replies to the first objection to the straddling modes: that sensing is nothing other than thinking. After presenting all four accounts, I will turn to the other objection to straddling modes: that we can be certain we are sensing even supposing that there is no extension.

The first account is that *aspects of modes are parts of modes.* On this account, when Descartes says that action and passion are one and the same thing, he is saying

that they are parts constituting one and the same mode. There is a passage in the *Principles* that might be thought to provide evidence that Descartes allows talk of parts of modes: he explains how it can be useful to divide one movement into many parts. Nevertheless, I think this account is the least plausible of the four. In the same passage in the *Principles*, he also says that such movements are not really distinct, which seems to mean, in that context, that such parts are not real (AT VIIIA 57–8; CSM I 236–7).

The second account is that *aspects of modes are modes of modes.* Descartes does distinguish between two modes found in movement—one is motion alone, or speed, the other is the determination of this motion in a certain direction—and he is willing to say of these modes that they are in movement, which is itself a mode, as in a subject.[20] By analogy, one might try to construe action and passion as modes that are in a mode. On this account, when Descartes says that action and passion are one and the same thing, he is saying that they are modes that are in one and the same mode.

On these first two accounts, a straddling mode is a complex entity: either it is a mode composed of parts or it is a mode with other modes in it. It is fairly straightforward how these accounts can generate a response to the objection that sensing is nothing other than thinking. Even though the straddling mode is a mode of both thought and extension, a sensation, conceived either as a part of this straddling mode or as a mode of it, need not itself be a mode of both thought and extension.

The third account is that *a straddling mode is complex in another way, in being in two subjects at once.* We might characterize its complexity as that of "having sides" like the concave and convex sides of a single surface. On such an understanding, it seems perfectly reasonable to say of a passion that even though it is a straddling mode, in referring to that mode as a passion, we are picking out a certain aspect of it—that it exists in the patient. Similarly, even though an action is a straddling mode, in referring to it as an action, we are picking out another aspect—that it exists in the agent. And if this is acceptable—in other words, if it is acceptable to say that insofar as a straddling mode exists in the agent it is only an action and insofar as it exists in the patient it is only a passion—then it should be equally acceptable to say that a mode straddling mind and body is only a mode of thought on the mind's side and only a mode of extension on the body's side. Therefore, even taking a sensation itself to be a straddling mode presents no barrier to saying, as Descartes says in the *Second Meditation*, that sensing is nothing other than thinking, since that straddling mode is a sensation only on the mind's side.

Although this is my preferred account of the relation between action and passion when one subject acts on another, it falls short in one important respect. It fails to explain the relation between action and passion when something acts on itself, that is, when the agent is the same subject as the patient. The analogy of having sides, tenuous as it is when one of the two subjects is not extended, collapses when there is only one subject.[21]

The fourth account is that *straddling modes, even though they exist in two subjects, should not be thought of as complex.* Talk of aspects is merely talk of two ways of looking at one simple mode. On this account, if a sensation is a straddling mode, and that mode is a mode of thought and extension, then sensation itself is a mode of thought and extension. This fourth account of straddling modes does conflict, at least prima facie, with the *Second Meditation* view that sensing is nothing other than thinking.

But there is an interesting textual argument that in fact there is no conflict. As we have seen, there are two kinds of sensing that figure in the *Second Meditation*. One kind is distinguished from thinking, depends on body, and fails the certainty test. The other kind is not distinguished from thinking, apparently does not depend on body, and passes the certainty test. It might be argued that the kind of sensing that fails the certainty test is the kind that is an aspect of a straddling mode.

Some evidence for this interpretation is found in the *Replies to the Sixth Objections* where Descartes distinguishes among three grades of sensation (AT VII 436–8; CSM II 294–5). The first and lowest grade consists of the cerebral motions we have in common with animals. That is, on my interpretation, the first grade consists of the action side of the straddling mode. The second grade consists of the perceptions of pain, thirst, hunger, colors, sound, taste, smell, heat, cold, and the like that result immediately in the mind from its being so intimately connected to the brain that it is affected by the brain's motions. That is, on my interpretation, the second grade consists of the passion side of the straddling mode. The third grade consists of judgments that depend solely on the intellect.

It does not seem implausible to suppose that Descartes is speaking of the third grade of sensation, the grade that depends solely on the intellect, and not the second grade, when he says in the *Second Meditation* that properly speaking, sensing is seeming to hear, to see, to grow warm, and that taken so precisely it is nothing other than thinking. So I think that an interesting case can be made that Descartes is not arguing in the *Second Meditation* that sensations of the second grade are nothing other than thinking, so that he is not arguing that the sensations that are aspects of straddling modes are nothing other than thinking.

I do have reservations about this reading of the *Second Meditation*. Let me briefly mention one. I am not entirely convinced that it is more plausible to identify seeming to hear, to see, to grow warm—what Descartes says in the *Second Meditation* is properly called sensing—with the third grade of sensation than with the second grade. The resolution of this question turns on whether seeming to see is better understood as being appeared to in a particular way (the second grade of sensation) or as making a judgment that one is perceiving something (the third grade). One reason for understanding seeming to see as being appeared to in a particular way is that it would seem to pass the certainty test. How could an evil genius fool us into believing we are being appeared to in a particular way when in fact we are only judging that we perceive something? Another reason for identifying seeming to see

with the second grade of sensation is that in distinguishing the second grade from the third grade, Descartes says that if we want to distinguish the senses accurately from the intellect, nothing else beyond the second grade should be referred to the senses.

Even if we suppose that Descartes is speaking of sensations of the second grade when he says in the *Second Meditation* that sensing is nothing other than thinking, that does not by itself constitute decisive evidence against taking them to be modes of both thought and extension. The reason is that Descartes does not, throughout his writings, maintain an unambiguous account of the relation of sensation to extension. There is a prominent passage in the *Principles* in which he might be taken to imply that, in fact, sensations are modes of both thought and extension. In *Principles*, part I, article 48, where he provides an enumeration of what there is, he first distinguishes things that pertain to mind from those that pertain to body, and then he continues as follows:

> However, we experience in ourselves certain other things which should be referred neither to the mind alone, nor to the body alone, and which, as will be shown below in its proper place, originate from the close and intimate union of our mind with body: namely, the appetites of hunger, thirst, etc., and also the emotions, that is, the passions of the soul, which do not consist in thought alone, such as the emotions of anger, cheerfulness, sadness, love, etc., and finally all the sensations, such as, of pain, tickling, light, and colors, sounds, odors, tastes, heat, hardness, and the rest of the tactile qualities. (AT VIIIA 23; CSM I 209)

When Descartes asserts that the emotions do not consist in thought alone, he implies that they, as well as appetites and sensations, consist in both thought and extension. And for a sensation to consist in both thought and extension is, it would seem, for it to be a mode of both thought and extension. But this text is not conclusive. That a sensation consists in both thought and extension might instead be meant to imply only that sensation is a mode, or a part, or a side of a mode that is extended, and not that that mode is extended insofar as it is a sensation. It might even be meant to imply only that sensation arises from extension, in the sense of being caused by something extended.

In any case, the thesis that there are modes that are modes of both thought and extension straddling mind and body is, at the very least, consistent with those modes being modes of thought only on the mind's side and modes of extension only on the body's side. Thus those passages in which Descartes asserts that sensations, for example, are nothing other than thought do not count against the first three accounts of straddling modes, but only against the fourth account, according to which sensing itself is a mode of both thought and extension.

The possibility that Descartes might have wavered on which labels should be attached to which aspects of modes straddling mind and body explains an interesting

shift in terminology from his early to his mature writings. In his earlier works, he explicitly refers to images on the surface of the pineal gland as ideas (AT XI 176; CSM I 106: AT VI 55; CSM I 139), but in his more mature works he seems to distinguish between two sorts of images, those existing in the mind and those existing in the brain, and he denies that images are ideas insofar as they exist in the brain. The most important statement of his mature view occurs in his definition of 'idea' in the *Replies to the Second Objections*:

> Thus it is not only the images depicted in the imagination that I call 'ideas.' Indeed, in so far as these images are in the corporeal imagination, that is, are depicted in some part of the brain, I do not call them 'ideas' at all; I call them 'ideas' only in so far as they inform the mind itself turned towards that part of the brain. (AT VII 160; CSM II 113)

The straddling modes interpretation suggests a new and more convincing reading of this passage. Descartes is seen to be distinguishing not between two different images, but between one image insofar as it exists in the brain, and the same image insofar as it exists in the mind. It is said to be an idea insofar as it exists in the mind, but not insofar as it exists in the brain. On this reading, his use of the term 'idea' in his mature writings undergoes a less drastic shift from its use in his early writings than it does on the standard interpretation. According to this new interpretation, as opposed to the standard interpretation, the image that exists in the brain is properly called an idea on both the early and mature use of the term. But on the mature use, an important qualification has been made. He is willing to call that image, which does exist in the brain, an idea only insofar as it exists in the mind but not insofar as it exists in the brain.

There is, as noted earlier, a second objection to the straddling modes interpretation that derives from Descartes's account of sensing in the *Second Meditation*. Even if, as I have just been arguing, the first three accounts of straddling modes are consistent with sensing being nothing other than thinking, it might still be objected that by making sensation an aspect of modes that are extended, the straddling modes interpretation conflicts with the clear implication of the *Second Meditation* that we could sense even if there were no bodies and no extension. And even if we were to take Descartes to be asserting only of sensations of the third grade that they are nothing other than thinking, there is evidence that he thinks that we cannot have sensations of the third grade without having sensations of the second grade, that is, sensations that are aspects of straddling modes.

My initial response to this objection is to note that in whatever sense action and passion are said to be the same, the identity in question is not a type-type identity, it is only a token-token identity. The best evidence for this derives from Descartes's explanation of how we can gain control over our passions. He argues that even the weakest soul can acquire absolute control over its passions by separating the movements of the pineal gland from the thoughts to which they are joined by nature and

joining them to other thoughts (AT XI 368–9; CSM I 348).[22] So, for example, a type of pineal movement that by nature brings about the passion of fear can, through habituation, be made to bring about some other passion. Therefore, even if a sensation token is the same thing as an action in the pineal gland, it does not follow that all sensation tokens of that type are the same thing as actions of the same type.

But showing that Descartes thinks sensation tokens of the same type might be the same thing as pineal movements of different types does not yet show that he thinks there could be a sensation token that is not the same thing as any pineal movement. Is there evidence that he thinks something other than a pineal movement could bring about a sensation? There is, of course. In the *Sixth Meditation*, he considers the possibilities that our sensations are caused either by God or by some creature more noble than body (AT VII 79; CSM II 55). These possibilities are rejected as an account of what actually happens, not because they are impossible, but because, given that God has given us the strong inclination to believe that sensations are caused by bodies and no means of discovering that that belief is false, they conflict with God's veracity. According to the second possibility, that there are creatures more noble than body that cause our sensations, a sensation token could be the same mode as an action that is not bodily. (It is worth noting that if an action of God were to bring about our sensations, then those sensations could not be modes that straddle our minds and God, because God has no modes. As he says in the letter to More, "In a created substance this power [to move a body] is a mode, but it is not a mode in God. Since this is not easy for everyone to understand, I did not want to discuss it in my writings. I was afraid of seeming inclined to favor the view of those who consider God as a world-soul united to matter" (AT V 404; CSMK 381). Even though Descartes does not provide a distinct account of the relation between God's actions and the passions they bring about, it seems unlikely that he would think that it is the same as the relation between the actions of creatures and the passions they bring about. No matter how we interpret his assertion that action and passion are one and the same thing—whether it implies that the thing is wholly in the patient as its subject or instead is in the agent as well—I cannot see Descartes allowing one of God's actions to be the same thing as a passion referred to a creature.)

This initial response might be thought to be inadequate. Descartes's arguments in the *Second Meditation* seem to raise the possibility not just that there might have been sensations that are not aspects of modes straddling mind and body but also that the very sensations we do have might not have been aspects of modes straddling mind and body. But in ascribing to Descartes a token-token sameness of action and passion, it might seem, according to our contemporary understanding of identity, that I have committed him to the view that they are necessarily the same. Therefore, we could not have had numerically the same sensations if there were no bodies and no extension, supposing that those sensations are the same as brain motions.

There is, however, no conflict with our contemporary understanding of identity. According to the first three accounts of straddling modes, action and passion are

the same only in the sense of being aspects of the same mode. So while that mode is necessarily self-identical, it does not follow that its aspects are identical with each other. So if action and passion are understood to be two distinct aspects of one straddling mode, and if both aspects are not essential to that mode, then that mode could exist without one of the aspects. So even though a straddling mode is necessarily self-identical, perhaps it is not essential to it that it straddle mind and body. Suppose, then, that being a sensation is essential to a particular mode, but being a bodily action is not. In that case, it would be possible for us to have the very sensations we do even if no bodies existed.

But here it might be objected that Descartes's account of modal distinction commits him to the view that no mode can exist apart from its subject(s), so that it must be essential to a straddling mode that it straddle the very subjects it in fact straddles (AT VIIIA 29; CSM I 213–4). In response to this objection, I would point out that in his account of the Eucharist, Descartes does allow that numerically one and the same surface can straddle different subjects at different times:

> For when two bodies are in mutual contact there is a single boundary common to both which is a part of neither; it is the same mode of each body and it can remain even though the bodies are removed, provided only that other bodies of exactly the same size and shape take their places. Indeed, the kind of place characterized by the Aristotelians as 'the surface of the surrounding body' can be understood to be a surface in no other sense but this, namely as something which is not a substance but a mode. For the place where a tower is does not change even though the air which surrounds it is replaced, or even if another body is substituted for the tower; and hence the surface, which is here taken to be the place, is not a part either of the surrounding air or of the tower. (AT VII 434; CSM II 292–3)
>
> The surface intermediate between the air and the bread does not differ in reality from the surface of the bread, nor from the surface of the air touching the bread; these three surfaces are in fact a single thing and differ only in relation to our thought. That is to say, when we call it the surface of the bread we mean that although the air which surrounds the bread is changed, the surface remains always numerically the same, provided the bread does not change, but changes with it if it does. And when we call it the surface of the air surrounding the bread, we mean that it changes with the air and not with bread. And finally, when we call it the surface intermediate between the air and the bread, we mean that it does not change with either, but only with the shape of the dimensions which separate one from the other; if, however, it is taken in that sense, it is by that shape alone that it exists, and also by that alone that it can change. For if the body of Jesus Christ is put in the place of the bread, and other air comes in place of that which surrounded the bread, the surface which is between that air and the body of Jesus Christ is still

> numerically the same as that which was previously between the other air and the bread, because its numerical identity does not depend on the identity of the bodies between which it exists, but only on the identity or similarity of the dimensions. (AT IV 164–5; CSMK 241–2)[23]

However, even though he is careful to distinguish such migrating surfaces from the objectionable real accidents—the difference being that real accidents subsist by themselves, but such surfaces must exist in substances having the same dimensions—we have already seen that he also finds migrating modes objectionable. Indeed, when I discussed that, I speculated, then, that his rejection of migrating modes leads him to adopt straddling modes. So it might seem inconsistent to turn around and defend straddling modes by appeal to passages where he seems to allow migrating modes.

Descartes's claim in his letter to More that a mode cannot migrate from one substance to another does seem to conflict irreconcilably with his account of the Eucharist. It is not too surprising that a philosopher might contradict himself in trying to provide a metaphysics to ground both physics and the Eucharist. But I do not think it is illegitimate to invoke Descartes's account of the Eucharist to undermine the claim that his theory of distinction by itself shows that it is essential to a mode that it exist in the very subject(s) in which it does exist. And it would be perfectly consistent for Descartes to reject migrating modes (modes that exist in different subjects over time), as he does in the letter to More, and still maintain nevertheless that a given mode could have existed in another subject.

The view that numerically the same passion might have been produced by an agent other than the one that did produce it is not unique to Descartes. Robert Heinaman has argued that although Aristotle thinks action is identical with passion, he is also committed to the view that except when something acts on itself, in no case is the particular agent necessary to the change that takes place. If, for example, someone (A) builds a house out of building materials at a certain time in a certain way, someone else (B) could have done it at the same time in the same way.[24] According to Heinaman, Aristotle thinks that numerically the same action that was performed by A could have been done by someone else B: that very action of house-building by A that was the house's being built at a given time could have been done by B. Since all that matters to the identity of the action is the patient, the time, the starting point, the end point, and the path, it need not be essential to an action token that it be performed by a particular agent.[25]

In my characterization of Descartes's view, I have not described him as thinking that numerically one and the same action could have belonged to another agent. Instead, I have described him as thinking that numerically the same mode might have belonged to a different agent, but that it would have had a numerically different action as an aspect had it belonged to a different agent. But one might wonder why, if I am willing to say that numerically the same mode might have belonged to

a different subject, I do not also say that numerically the same action might have belonged to a different agent. My hesitation derives from the fact that Descartes thinks that the actions in question might be of an entirely different type: one might be a mode of extension, the other not, if, for example, we are considering the possibility of our sensations being produced by a creature more noble than body. Now if we understand modes straddling mind and body to be complex in some way, as they are according to the first three accounts, it does not seem impossible to maintain that numerically the same straddling mode might not have been extended. But on none of those accounts is any complexity ascribed to the action itself, and it does seem implausible to maintain that numerically the same simple mode or aspect of a mode of extension might not have been a mode of extension.

Another sort of textual objection to the straddling modes interpretation is that I have misread the very article of the *Passions* that I claim provides the most important piece of evidence for it. Immediately after asserting in the second article that "what in the soul is a passion is usually an action in the body," he says "hence there is no better way of coming to know about our passions than by examining the difference between the soul and the body, in order to learn to which of the two we should attribute each of the functions present within us" (AT XI 328; CSM I 328). And in the third article he continues by explaining, "We shall not find this very difficult if we bear in mind that anything we experience as being in us, and which we see can also exist in wholly inanimate bodies, must be attributed only to our body. On the other hand, anything in us which we cannot conceive in any way as capable of belonging to a body must be attributed to our soul" (AT XI 329; CSM I 329).

Now if Descartes really intended to be referring to modes straddling mind and body in the second article, it might seem implausible that he would proceed in the very next sentence to make such a sharp distinction between what belongs to mind and what belongs to body. But this is not at all implausible. We have already seen him make similar dichotomizing remarks in the case of modes straddling bodies. Even though the action is one and the same thing as the passion, he thinks it is important to distinguish the action, which belongs only to the agent, from the passion, which belongs only to the patient. In the present context, he has an additional motivation for distinguishing what belongs to the soul from what belongs to the body. His stated aim in the *Passions* is to discover which functions properly belong to the mind and which to the body. That is, since he seems to use the term 'functions' when he wants to refer to both actions and passions, he wants to discover which actions and passions belong to the mind, and which to the body. He thinks that his predecessors have made important mistakes in this regard. For example, there are certain passions in the body whose corresponding actions should also be located in the body and not in the soul as the Aristotelians thought. These are its natural heat and most of its movements (AT XI 330; CSM I 329). The only actions of the soul that can terminate in the body are voluntary actions, because the soul's only actions are volitions (AT XI 342; CSM I 335). In the case of the passions of the soul (in the broad

sense), Descartes sets out to distinguish those that have their corresponding actions in the body from those that have their corresponding actions in the soul. In such a context, it is obviously of crucial importance to establish a criterion for distinguishing actions belonging to the soul from actions belonging to the body. So Descartes has two motivations for wanting to distinguish what belongs to body from what belongs to the mind. First, he wants to distinguish the action from the passion, just as he did with modes straddling bodies, and second, he wants to determine whether the action producing a given passion belongs to the body or to the mind. But none of this conflicts with the identity of action and passion as aspects of one and the same mode, or with the straddling modes interpretation.

A more serious objection concerns his actual account of, as he puts it, the bodies to which our perceptions are referred. If the straddling modes interpretation were true, then it would seem to follow that the body to which our passions are referred as a subject, although not insofar as they are passions but only insofar as they are actions, would be that body that immediately acts on the mind, namely, the pineal gland. But it turns out that we refer some of our sensations, such as those of light and sound, to bodies outside our own body. And even those sensations that we do refer to our own body, such as hunger, thirst, heat, and pain, we refer not to the pineal gland itself but to other parts of the body. We don't refer any of our passions to the pineal gland (AT XI 346–7; CSM I 337). And while we sometimes make mistakes in referring a passion to its cause or object, we are often correct. This raises a grave complication in trying to make sense of Descartes's statement in the first article of the *Passions* that "the action and passion are always one and the same thing, which has these two names, because of the two diverse subjects to which it may be referred." For now it looks as if he might be saying that the passion is identical with the action of the body that is its distant cause, and not, as it appears when the first two articles of the *Passions* are read in isolation, that it is identical with the action of the body that is its proximate cause. And it does seem implausible to think that there could be a mode straddling a patient and a distant agent.

Assuming that the action in the distant agent is numerically distinct from the action in the proximate agent, then Descartes cannot identify the passion with both of those actions. So for the sake of consistency, either he must give up his apparent claim that the passion is identical with the action in the agent to which it is referred, or he must give up his claim that the passion is identical with the action in the agent that immediately acts on it.[26] My own view is that it is much more plausible for both textual and philosophical reasons to interpret Descartes as identifying the passion with the action in the proximate agent than with the action in the distant agent. The philosophical reasons I take to be self-evident. The textual reasons are, first, in the second article of the *Passions*, he makes a point of identifying the passion with the action in the body precisely because the body is the immediate agent. Second, he does not reintroduce the doctrine of the identity of action and passion when he finally gets around to telling us, in articles 23 and 24, the bodies to which

our perceptions are referred. Finally, there is a third class of perceptions, the one in which he is most interested, which consists of those referred to the soul in part because "we don't know any proximate cause to which we can refer them," even though it turns out that they are caused by some movement of the animal spirits (AT XI 347–9; CSM I 337–9). The fact that in article 25 Descartes is willing to speak of referring a passion to a subject that is neither the distant nor the proximate agent makes it plausible to infer that the kind of referring to a subject being discussed there is of a different sort from that at stake in the first article of the *Passions* when the identity of action and passion is introduced.

The straddling modes interpretation might strike some as less appropriate as an interpretation of Descartes than of Spinoza, who says that a mode of extension and the idea of that mode are one and the same thing expressed in two ways.[27] But the differences between the straddling modes thesis and Spinoza's identity thesis are more significant than any similarities. First, Spinoza's identity is not an identity of action and passion. His parallelism requires that if there is an identity, it is of an action in the body with an action in the mind and of a passion in the body with a passion in the mind.[28] Second, Spinoza's commitment to the identity of modes of thought with modes of extension, or at least the identity of what those modes express, goes hand in hand with his commitment to the identity of thinking substance with extended substance. Therefore, Spinoza's identity thesis precludes straddling modes, since there is only one subject and not two. For there to be modes straddling mind and body, mind and body must be distinct subjects. Third, Spinoza's identity is intended to be consistent with his rejection of mind-body causal interaction, whereas I see the straddling modes thesis as providing grounds for a reply to Spinoza' s argument against the possibility of interaction. Spinoza argues that an effect must be conceived through its cause, so that if a mode of thought were caused by a mode of extension, it would have to be conceived through extension. But no mode of one attribute can be conceived through another, given that each attribute is conceived independently of the rest.[29] Descartes can reply that the conceptual independence of attributes entails only that each attribute can be conceived independently of the other and not that each is conceived independently of the other. And by allowing that thought and extension are not conceived independently because there are straddling modes that are conceived through both of them, he can account for the possibility of causal interaction between mind and body by means of such straddling modes without jeopardizing the conceptual independence of attributes, since as we have seen, he believes those attributes can exist independently of the straddling modes.

How do straddling modes explain the possibility of causal interaction? It is an explanation of the sort we might call explanation by ontological structure. In this particular case, the explanation is that created substances A and B causally interact when A brings about a mode that straddles A and B. Such an explanation does not, of course, solve puzzles one might have about straddling modes: it does not explain how a mode could straddle two substances, nor does it explain how a mode could

straddle mind and body. It also raises further puzzles about the nature of causation. Does, for example, the doctrine of the identity of action and passion commit one to the identity of cause and effect? Aquinas says that a passion is the effect of an action, which might suggest that it does.[30] But there are several ways Descartes could be interpreted so as to avoid such a consequence. Even if he identifies the cause with the action and the effect with the passion, he might still say that cause and effect are merely aspects of one and the same thing. If instead he subscribes to a theory of agent causation, and there is considerable textual evidence that he does, then substances would be causes and not their actions. In that case, we might describe the action of a substance as the occasion of that substance causing a certain effect. (On such a reading, the real tension between Descartes's sometimes saying that bodily motions are the occasions of ideas and other times saying that they cause ideas would not be a tension between causal interactionism and occasionalism, but a tension between allowing events to be causes and restricting causes to substances.) Alternatively, we might describe the action as itself an aspect of the effect: an action and its passion are aspects of one and the same effect whose cause is the agent.[31]

It is true that none of these accounts explains how something entirely physical, either a body or its action, could produce something that is mental or that has a mental aspect, and how something entirely mental, either a mind or an act of will, could produce something that is physical or that has a physical aspect. But here I think Descartes can consistently and perhaps plausibly maintain that such causal powers should be taken as primitive.

Conclusion

I have argued that Descartes's account of causation leads him to the view that sensations, appetites, and emotions, which he groups together as passions, as well as the ideas of the imagination and volitions terminating in the body, are the mind's side of modes that straddle mind and body. So there is a clear sense in which the founder of our modern concepts of the mental and the physical retains the Aristotelian view that sensations, appetites, emotions, and the ideas of the imagination occupy an intermediate state between the immaterial or mental and the material or physical. My argument for this conclusion has been based primarily on the analysis of some very prominent but surprisingly ignored texts. If I have accomplished nothing else in this essay, I will be satisfied if it helps those texts receive the attention they deserve.[32]

9

Passion and Motion in the New Mechanics

1. Introduction to the Problem

Descartes's most important contribution to physics is commonly thought to be his reconceptualization of motion. His Aristotelian predecessors viewed motion as a change or process, but Descartes held that motion is a state. This reconceptualization of motion is considered significant because it paved the way for both Descartes's and Newton's laws of inertia. While a change requires a force or cause, a state does not. As Alexandre Koyré puts it:

> Now it is precisely and only because it is a *state*—just like rest—that motion is able to conserve itself and that bodies can persevere in motion without needing any force or cause that would move them, exactly as they persist at rest. It is obvious that bodies could not do so as long as motion was considered a process of change. Nothing changes without a cause—at least before quantum physics—as Newton expressly states. Thus, so long as motion was a process, it could not continue without a mover. It is only motion as *state* that does not need a cause or mover. Now, not all motion is such a *state*, but only that which proceeds uniformly and in a right line, *in directum*, that is, in the same direction with the same speed. No other motion, and particularly no circular or rotational motion, even if it be uniform, is such a state, even though rotation seems to be able to conserve itself just as well as or perhaps better than rectilinear motion.[1]

According to Richard Westfall, Descartes made changes in motion the objects of explanation and held that steady motion requires no explanation.[2]

Anneliese Maier explains this transition from Aristotelian mechanics to modern mechanics as follows:

> late scholastic thinkers assumed that uniform motion is caused by a special kind of motive force called *impetus*, while modern mechanics postulates

> that uniform motion does not require any force to make it continue, but instead persists of its own accord because of the inertia of the mass involved.[3]

Maier, in other words, sees a crucial difference between the theory of impetus and the theory of inertia. The notion of impetus was invoked by the late scholastics in order to reconcile the existence of projectile motion with their fundamental assumptions that everything that moves is moved by something and that there is no action at a distance. A projectile—such as a baseball in flight—is problematic on Aristotelian mechanics because it seems to be separated from any forces. To solve this problem, late scholastics maintained that the original force, say the muscular force of my arm, imparts a secondary force—the impetus—to the projectile itself. In contrast, Maier maintains, on the modern theory no force is required to explain the continued motion of the projectile.

I find these claims suspect. First, it seems dubious to suppose that it is some sort of conceptual truth that uniform motion requires no cause or force if it is understood to be a state rather than a change.[4] Second, there is important textual evidence that goes against the historical claim that Descartes and Newton thought that uniform motion requires no force to make it continue, indeed, that it requires no explanation. Another important reason for calling into question Koyré's account is that he appears to contradict in two different ways his claim that it is their conceiving of motion as a state that explains why Descartes and Newton think that it requires no cause or force. First, Koyré says that Newton explains why bodies persevere in their states of uniform motion by attributing to bodies a force of resistance to motion called the power of inertia (*vis inertiae*). Second, Koyré argues that in contrast, Descartes does not believe in endowing bodies with powers, not even the power of self-conservation. Descartes explains this tendency of bodies instead by appeal to the immutable actions of God.[5]

The first apparent contradiction here is to assert both that Newton thinks that since motion is a state it does not require a force and that Newton explains why bodies persevere in motion by appealing to a force. Second, if Koyré is correct in asserting that Descartes did not believe in endowing bodies with any powers, then it follows that for Descartes uniform motion and changes of motion are in exactly the same boat with respect to their need for a cause. Both are accounted for entirely by an action of God simultaneous with its effect; neither is accounted for by the action of other bodies. This implies, contrary to Koyre's claim about the significance of Descartes's reconceptualization of motion as a state, that in fact it is doing no real work in explaining why no natural force is needed to account for a body's perseverance in its motion.[6]

My aim in this essay is thus to take a new look at the reconceptualization underlying Descartes's and Newton's laws of inertia. I will be arguing for the following four claims. First, Koyré oversimplifies matters in maintaining that the key conceptual

change underlying Descartes's and Newton's law of inertia is that motion is a state and not a change. Second, Descartes and Newton both think that a body in motion continues to move in part because of a force or cause located in that body. Let me emphasize at the outset that in asserting that Descartes thinks a moving body requires a force located in that body in order to persist in motion, I am not denying that the action of God is also required. God's action is the primary cause, the action of the moving body on itself is a secondary cause. Others have defended this reading of Descartes, but I will be offering a new series of arguments in support of it. Third, and this is my primary contribution to the discussion, there are two possible reasons why Descartes conceives of the continuation of motion as requiring a force: first, he continues to think of transfer (of place) as a passion, and he retains the basic Aristotelian doctrine that in causal events the passion undergone by the patient is the same as the agent's action, and second, he thinks that the continuation of any state of body involves a force. Fourth, we can explain the fact that Newton does not conceive of this force as an active force by noting that he apparently ceases to think of motion as a passion.

2. Descartes on States, Changes, Actions, Passions, Motion, Rest, and Force

There are two related lines of argument that show that Descartes does think motion requires a force or cause, even though he conceives of motion as a state, and that he does attribute forces to bodies. One of these lines of argument derives from remarks Descartes makes in contexts not directly concerned with physics; the other derives from remarks he makes in the context of his physics. These two lines of argument are intimately connected, but there is also tension between them in regard to their implications for Descartes's account of rest.

To understand the first line of argument, some background concerning the Aristotelian account of change is useful. For the Aristotelians, both for Aristotle and his scholastic followers, the concept of change was intimately linked to the categories of action and passion. For example, something undergoes a change when it goes from being cold to being hot. This change is regarded as a passion—becoming hot—with respect to the patient, the subject that undergoes the change. It is regarded as an action—heating—with respect to the agent that brings it about. Aristotle and his scholastic followers subscribed to a doctrine, fundamental to their account of causation, that I will refer to as the identity of action and passion: the agent's action is one and the same change, one and the same motion, as the patient's passion. They also maintained that this change is located in the patient.[7] So the agent's action of heating is one and the same change, one and the same motion, as the patient's becoming hot, and this change is located in the patient. Being hot, in contrast, is a state. Being hot is not something a subject undergoes, it is not a change, and it is not to be identified with an action or passion.

In divorcing the concept of motion from that of change, Descartes does not divorce the concept of motion from the categories of action and passion, and for that reason I am doubtful that it follows simply from Descartes' reconceptualization of motion as a state that motion does not require a force or mover. That is, even though motion, like rest, is a state of a body, it is still regarded by Descartes as something a body undergoes, thereby entailing that the body is being acted on.[8] In a letter to Regius of December 1641, Descartes refers to motion in the moved thing as a passion: "in corporeal things, every action and passion consists simply in local motion, and one calls this motion an action when it is considered in the mover and a passion when it is considered in the thing that is moved" (AT III 454; CSMK 199). Descartes explicitly asserts here that every passion in a body is a motion, but I think he also intends the converse—that every motion in a moved body is a passion. Later, in the *Passions of the Soul*, he both mentions and makes use of the Aristotelian doctrine of the identity of action and passion:

> I note that whatever takes place or occurs is generally called by philosophers a passion with regard to the subject to which it happens and an action with regard to that which makes it happen. Thus, although the agent and the patient are often quite different, the action and the passion must always be a single thing which has these two names on account of the two different subjects to which it may be related. (AT XI 328; CSM I 328)

Since every motion in a moved body is surely something that takes place or occurs, there is good reason to think that Descartes would assert of every motion that it is a passion.

It is also important to note that in the passage from the letter to Regius, Descartes locates the agent's action not in the moved body but in the mover. In this respect, Descartes's account of the doctrine of identity of action and passion differs from the Aristotelian version because the Aristotelians locate the agent's action in the patient. Descartes makes the same point again in the *Passions* when he applies the doctrine of the identity of action and passion to the body's action on the mind: "Next, I note also that we do not notice that there is any subject which acts more immediately upon our soul than the body to which it is joined. We should consequently recognize that what is a passion in the soul is usually an action in the body" (AT XI 328; CSM I 328). Descartes goes on to explain that it is important to distinguish the soul and body—not because this implies that action and passion are not one and the same thing—but because it is important to attribute the correct functions to the correct subjects. That is, he seems to maintain that the subject of a given function is the agent in which the action is located: "Hence there is no better way of coming to know about our passions than by examining the difference between the soul and the body, in order to learn to which of the two we should attribute each of the functions present within us" (AT XI 328; CSM I 328).

The other passage in which Descartes endorses the doctrine of the identity of action and passion, the spinning top passage, from a letter in August 1641 to an unknown correspondent, requires careful study:

> When it is said that a spinning top does not act upon itself, but is acted upon by the absent whip, I wonder how one body can be acted upon by another which is absent, and how action and passion are to be distinguished. For I admit I am not subtle enough to grasp how something can be acted upon by something else that is not present—which may, indeed, be supposed not even existent, if the whip ceased to exist after whipping the top. Nor do I see why we could not as well say that there are now no actions in the world at all, but that all the things which happen are passions of the actions there were when the world began. But I have always thought that it was one and the same thing which is called an action in relation to a source [*terminus a quo*] and a passion in relation to an end [*terminus ad quem sive in quo*]. If so, it is inconceivable that there should be a passion without an action for even a single moment. (AT III 428; CSMK 192–3)[9]

The context of the passage is that Descartes is trying to defend the example of the spinning top he had provided earlier (AT VII 367; CSM II 253), in response to an objection (AT VII 292; CSM II 203) to his claim that the intellect understands itself, to illustrate that it is coherent to suppose that something acts on itself. In the opening sentence, he describes the view he is intending to refute, namely, that the top does not act on itself. Thus, there can be no reasonable doubt that Descartes is trying to explain why he thinks a spinning top acts on itself.[10] In the course of his explanation, he relies on the Aristotelian doctrine of the identity of action and passion: action and passion are the same thing, which gets called by different names, depending on whether it is referred to the agent or to the patient. Descartes takes this doctrine to imply, as we can infer from the concluding sentence, that as long as the top spins there is an action simultaneous with the passion that is its spinning. Since the whip has ceased acting on the top, Descartes would have us conclude that the top is acting on itself. I take this passage to provide important evidence that Descartes thinks every motion requires that there be an agent or mover acting on the moving body so long as it continues to move. Moreover, it shows that Descartes thinks that the agent in what we would call inertial motion is the moving body itself.

Koyré would presumably object that for Descartes, the rotational motion of a spinning top is not inertial, it is not a state, so the example is irrelevant. I would respond that Descartes's thought is not that action is required of the spinning top only to make its motion deviate from rectilinear motion, but rather that the top needs to act on itself in order for it to continue to move at all. Descartes does not offer a fully detailed theory of the spinning top, but we might say on his behalf that the action of each part of the top on itself tends to preserve its uniform rectilinear

motion and that the fact that the actual motion of each part of the top deviates from rectilinear motion is caused by its being connected to the other parts of the top.

> if a wheel is made to turn on its axle, even though its parts go around (because, being linked to one another, they cannot do otherwise), nevertheless their inclination is to go straight ahead, as appears clearly if perchance one of them is detached from the others. For, as soon as it is free, its motion ceases to be circular and continues in a straight line. (AT XI 44; CSM I 96; M 71)

Both of the passages in which Descartes endorses the identity of action and passion occur when he is directly concerned with issues other than physics. So one has legitimate grounds to wonder how much of a role this doctrine is playing in his physics. There is, however, one passage from the *Principles*, part II, to be discussed below, that I believe contains an important echo of the doctrine and thereby provides a reason for thinking that at some level it is playing a role in his physics. There are, moreover, three crucial passages directly concerned with physics in which Descartes endorses the closely related doctrine that there is some force or principle in a moving body in virtue of which it continues to move. The first is from the *Principles*, part III, article 144:

> Another cause is that there may have previously been some movements in the Planet which it still retains long afterward, even though the other causes oppose this. For we see that a spinning top acquires enough force [*satis virium*], merely from the fact that a boy twirls it once, to continue subsequently to spin on its own for several minutes, and to rotate during that time several thousand times {around its axis}, even though it is very small and even though both the air which surrounds it and the earth on which it presses oppose its movement. (AT VIIIA 194, MM 169–70)

Here Descartes commits himself to the view that there is a force in the spinning top in virtue of which it continues to rotate. The second passage is from the *Principles*, part III, article 43:

> what is at rest has some force [*vis*] of remaining at rest and consequently of resisting anything that may alter the state of rest; and what is in motion has some force of persisting in its motion, i.e. of continuing to move with the same speed and in the same direction. (AT VIIIA 66–7; CSM I 243–4)

The third is from a letter to Mersenne of October 28, 1640:

> He [Father J. Lacombe] is right in saying that it was a big mistake to accept the principle that no body moves of itself. For it is certain that a body, once it has begun to move, has in itself for that reason alone the force to continue to move, just as, once it is stationary in a certain place, it has for that reason

> alone the force to continue to remain there. But as for the principle of movement which he imagines to be different in each body, this is altogether imaginary. (AT III 213; CSMK 155)

In these latter three passages, Descartes explicitly commits himself to the view that there is a force by virtue of which a moving body continues to move and that the force is located in the moving body itself. So the spinning top passage does not stand alone in committing Descartes to the view that bodies that continue to move act on themselves, and indeed, in these passages he does not restrict his point to bodies whose motion is rotational.

It also is significant that Descartes does not restrict his point to bodies that are in motion. He says that bodies at rest have a force in them to continue to stay at rest. For Descartes, rest is not a mere privation, but a state (AT XI 38; CSM I 93), quality (AT XI 40; CSM I 94), or mode (AT VIIIA 55; CSM I 234) with as much reality as motion. So motion is not the only state of a body whose continuation Descartes thinks is brought about by a force internal to the body. If we understand a body to act on itself if its condition follows from an internal principle or force, then Descartes is committing himself to the view that bodies at rest are also active.

This raises interesting questions about Descartes's conception of rest and about his views about when internal principles or forces are required. In regarding rest as a state, does he also regard the continuation of rest as a passion? On the one hand, we have his explicit statement quoted earlier in the letter to Regius that all of a body's passions consist of local motion, and we also have the intuitive view that a body that remains at rest is not undergoing anything any more than a body that maintains its shape. On the other hand, a body's maintaining its shape and continuing to be at rest might well be regarded as occurrences or things that take place, in which case they would count as perfectly good passions in the *Passions* sense.

If we adopt the latter view that the continuation of rest is a passion, we can explain his commitment to an internal principle or power by appealing to his commitment to the doctrine of the identity of action and passion and to the absence of any external agent to account for the continuation of the passion. This view, however, is in tension with the letter to Regius in which he implies that the continuation of rest is not a passion. If we adopt the former view that the continuation of rest is not a passion, then Descartes is allowing that there can be principles or forces in bodies whose effects do not count as passions, in which case we should conclude that he has a more general commitment to the view that the continuation of the states of a body in addition to those that are passions is brought about by a cause internal to the body, a view that is nearly the exact opposite of that Koyré attributes to him. I am tempted by the idea that Descartes has one reason for thinking that the continuation of rest requires an internal principle or force, namely, that rest is a state and states require an internal cause to persist, whereas he has two reasons for thinking that motion requires an internal principle or force: first,

motion is a state, and second, motion is a passion. Alternatively, someone might object that only the first reason is doing any real work for Descartes in his writings directly concerned with physics.

In any case, contrary to a common understanding of his rejection of Aristotelian physics in favor of mechanism, these three passages demonstrate that Descartes does not think mechanism requires us to deny all internal principles or forces in bodies. He allows a universal principle or force located in a body, provided it is simple enough to be readily intelligible.[11] Descartes thinks this condition of intelligibility is met by the tendency to move in a straight line, because this tendency is grounded in God's action and because "everything required to produce it is present in bodies at each instant which can be determined while they are moving" (since the whole nature of motion in a straight line can be understood in an instant, but to understand other motions one must consider it in at least two of its instants) (AT XI 44–5; CSM I 96–7).

To forestall potential confusion, let me note that in arguing that Descartes thinks bodies continuing in motion or continuing at rest act on themselves, I am not arguing for the claim that Descartes thinks bodies are self-activating in the sense of being able to start themselves in motion or stop their own motion. Thus I agree with the standard view that Descartes thinks a body's state does not change unless it is acted on by something else.

3. Consideration of Rival Interpretations of Descartes: Hatfield, Gueroult, Garber

Let me turn now to some crucial passages from the *Principles* that have been used to argue that Descartes denies that there are forces in bodies. I will argue that these passages are at worst neutral and at best provide additional support for the view that there are forces in bodies. Gary Hatfield has read *Principles*, part II, article 43, in the exact opposite way that I have. He claims that it provides evidence that Descartes does not think force is included among the properties of matter. To quote the passage more fully:

> In this connection we must be careful to note what it is that constitutes the force of any given body to act on another body or resist its action. This force consists simply in the fact that everything tends, *quantum in se est*, to persist in the same state in which it is, as laid down in our first law. Thus what is joined to another thing has some force of resisting separation from it; and what is separated has some force of remaining separate. Again, what is at rest has some force of remaining at rest and consequently of resisting anything that may alter the state of rest; and what is in motion has some force of persisting in its motion, i.e. of continuing to move with the same speed and in the same direction. (AT VIIIA 66; CSM I 243–4)

Hatfield claims that the "forces" are nothing but the tendency of each body to persist in its own state expressed by the first law and that this tendency does not follow from a property of matter but from an attribute of God. He concludes that "in explaining the tendency to persevere he does not appeal to the force that a body has by virtue of its motion. Indeed, the relation is just the reverse: 'the force of a body to act . . . is simply the tendency of everything to persist in its present state.' "[12]

Hatfield's interpretation does not hold up under close scrutiny. First, while he is surely correct that the tendency of each body to persist in the same state as expressed by Descartes's first law of motion is ultimately grounded in God's action, there is a crucial hint that Descartes here, too, locates that tendency or force in the body itself just as he does in the passage from the letter to Mersenne. What I have in mind is the phrase "quantum in se est." I. Bernard Cohen has argued that the phrase "quantum in se est" as used by Descartes and Newton just means "of its own force" or "according to its nature." Cohen treats these expressions as if they are equivalent, but at least in the case of Descartes, this is potentially misleading, because Descartes does not think that it follows from extension, the nature of a body, that a moving body continues to move. Rather God's action is also required. Nevertheless, the thrust of Cohen's argument is that Descartes's use of the phrase "quantum in se est" implies that there is force internal to bodies in virtue of which they tend to persist in the same state.[13] On Hatfield's view, according to which Descartes does not locate force in bodies, it is hard to see why Descartes would have included the phrase "quantum in se est."

Second, contrary to Hatfield's conclusion based on his reading of article 43, in the passage from the letter to Mersenne, Descartes does ground the body's tendency or force to continue to move in the fact that it is moving and its tendency or force to remain at rest in the fact that it is at rest. So I would argue that Hatfield is mistaken in asserting that Descartes does not appeal to the force that a body has by virtue of its motion to explain the tendency to persevere in motion. Its tendency to persevere in motion just is a force arising from its motion.

Hatfield is led astray by the *Principles* passage because he misidentifies the force that is being reduced to the tendency of something to remain in the same state. This can be seen by reinserting the words Hatfield leaves out by the ellipsis in his quotation. What Descartes actually says is that "the force of a body to act *on another body or resist its action* . . . is simply the tendency of everything to persist in the same state" (emphasis added). So what is being reduced to the tendency of everything to persist in the same state is the force that a body has to act on or resist other bodies. But this is fully consistent with the view expressed in the letter to Mersenne that the tendency of a body in motion to remain in motion arises from its motion and the tendency of a body at rest to remain at rest arises from its being at rest.

Thus if we combine this *Principles* passage with the passage from the letter to Mersenne, we come up with the following view. First, the force of a body to act

on another body or resist its action just is the tendency of everything to persist in the same state; second, the tendency of every body to persist in the same state of motion or rest is in the body itself and arises from its motion or rest; and third, this tendency or force of every body to persist in the same state is the source in the body of the body's acting on itself to cause its own motion or state of rest to continue.[14]

The next passage is from the *Principles*, part II, article 25.

> If, on the other hand, we consider what should be understood by motion, not in common usage but in accordance with the truth of the matter, and if our aim is to assign a determinate nature to it, we may say that motion is the transfer of one piece of matter, or one body, from the vicinity of the other bodies which are in immediate contact with it, and which are regarded as being at rest, to the vicinity of other bodies. By 'one body' or 'one part of matter' I here understand all that which is transferred at the same time, even if this may in turn consist of many parts which have other motions in themselves. And I say that it is a transference, not the force or action which transfers, in order to show that it [the motion] is always in the mobile thing, not in the thing which moves it (because these two are not usually distinguished with sufficient care); and in order to show that it is only a mode of it, not some subsisting thing, just like shape is a mode of a shaped thing and rest of a thing at rest. (AT VIIIA 53–4; CSM I 233)

Martial Gueroult's analysis of this passage has been very influential. He claims that it shows that Descartes thinks forces, as forces, are contrary to modes of extension and are identical with the divine force, which makes it paradoxical to suppose, as Gueroult thinks Descartes does suppose, that forces are immanent in extension.[15] But I think Gueroult is simply misinterpreting Descartes here. Descartes is making the more modest point, which echoes the point we have seen him make twice before in connection with the doctrine of the identity of action and passion about the location of the action, that we need to be careful to distinguish the transfer (of a body from one place to another) from the action bringing it about because the action must be located in the mover.[16] That is, Descartes here is once again rejecting the Aristotelian view that when the agent is different from the patient, the agent's action is located in the patient. On Descartes's view, only the transfer is located in the patient or moved thing. The action is located in the agent or mover (and thus only in those cases in which the agent and patient are the same, as in the spinning top, will the action be located in the patient). There is nothing in this passage that warrants Gueroult's interpretation implying that Descartes thinks the force or action is not a mode of extension of the agent or mover.

A third passage is from the *Principles*, part II, article 37: "From God's immutability we can also know certain rules or laws of nature, which are the secondary and particular causes of the various motions we see in bodies" (AT VIIIA 62; CSM I 240).[17]

Descartes is clearly asserting here that laws of nature are causes of motion. And it is certainly the case that one possible motivation for invoking laws as causes is to avoid saying that there are forces in bodies or that bodies are causes. But it is not at all clear that this is Descartes's motivation. If it is consistent to hold that a body can be a cause of motion even if God is the first cause of the same motion, I don't see why a body can't still be a cause of motion even if God's laws are secondary causes of that motion.

It is important to note, moreover, that Descartes does not provide an explicit account of the ontological status of these laws. There would seem to be three possibilities: they are in God, they are extrinsic to God and to bodies, or they are in bodies. I myself am tempted to suppose that Descartes thinks of laws of nature as principles of motion internal to bodies. But let me emphasize that any such suppositions on this matter are highly speculative. The reasons for my supposition are threefold. First, it seems to me wrongheaded to suppose that laws of nature, construed as principles extrinsic to all substances, could be efficient causes, so I am loath to attribute such a view to Descartes unless the text demands it. Second, Descartes's account of the way God is the primary cause of motion seems to leave no room for a secondary cause of motion also to reside in God. God, he tells us in *Principles*, part II, article 36, is the general cause of motion because in the beginning God created matter along with its motion and rest and now conserves the same amount of motion and rest through his regular concurrence (AT VIIIA 61; CSM I 240). If the secondary laws, which are the particular causes of the motions in individual bodies, are also in God, then it would seem to me to follow that there must be additional acts in God besides his regular concurrence to account for the motion of bodies, but that strikes me as awkward. So by a process of elimination, it seems more plausible to locate the secondary principles of motion in bodies themselves. In that case, a body's force could plausibly be identified with the secondary principles of motion.

One might object that the whole point of Cartesian mechanism is to replace Aristotelian internal principles of motion with something else. But as we have already seen in discussing the passage from the letter to Mersenne, Descartes does not object to internal principles of motion as such. What Descartes finds objectionable is the supposition that different bodies have different principles of motion:

> He is right in saying that it was a big mistake to accept the principle that no body moves of itself. For *it is certain that a body, once it has begun to move, has in itself for that reason alone the force to continue to move*, just as, once it is stationary in a certain place, it has for that reason alone the force to continue to remain there. *But as for the principle of movement which he imagines to be different in each body, this is altogether imaginary*. (AT III 213; CSMK 155; emphasis added)

Daniel Garber, in defending the view that Descartes thinks force is nowhere at all, asserts that Descartes really is not all that concerned with the issue of the ontological status of force because

> the underlying story is reasonably clear. There is God, the cause of motion in the world, either by divine shove or by continually recreating bodies at different places at different times, and there are bodies which have the modes of either motion or rest. By law 1, God will act on the world in such a way as to keep moving bodies moving, and resting bodies at rest. This can be *described* by saying that bodies, *as it were*, have a force to continue their motion, or exert a force to maintain their rest. But this is not to attribute anything real to bodies over and above the fact that God maintains their motion and as a consequence they obey a law of persistence of motion.[18]

I would respond that Garber has left out a central element of Descartes's story, namely, "the action which is understood to exist in the mover, or in that which arrests the motion" (AT VIIIA 55; CSM I 234). It is is clear from the examples provided in the surrounding discussion of *Principles*, part II, articles 26 and 27, that the mover and that which arrests motion are themselves bodies. When Descartes asserts at the outset of article 26 that "we are in the grip of strong preconceived opinion, namely, the belief that more action is needed for motion than for rest," his point is not that motion does not require an action but that coming to rest does require an action.

It has also been claimed that in *Principles*, part II, article 37 and in the corresponding passage in *The World*, Descartes "asserts that we do not have to explain why a body persists in its motion" or at least that he asserts that "we do not have to suppose a mover or a moving force when a body is in a state of uniform motion."[19] Here are the passages in question:

> The first of these laws is that each thing, in so far as it is simple and undivided, always remains in the same state, *quantum in se est*, and never changes except as a result of external causes. Thus, if a particular piece of matter is square, we are easily persuaded that it will always remain square unless something from another place comes which changes its shape. If it is at rest, we do not believe it will ever begin to move, unless it is driven to do so by some cause. Nor is there any reason, if it is moved, why we should think it would ever stop its motion on its own accord and with no other impediment. And thus we must conclude that what moves, *quantum in se est*, always moves. (AT VIIIA 62; CSM I 240–1)
>
> The first [law] is that each individual part of matter always continues to remain in the same state unless collision with others forces it to change that state. That is to say, if the part has some size, it will never become smaller unless others divide it; if it is round or square, it will never change that shape without others forcing it to do so; if it is stopped in some place it will never

> depart from that place unless others chase it away; and if it has once begun to move, it will always continue with an equal force until others stop or retard it. (AT XI 38; CSM I 93; M 61)

Nowhere in these passages does Descartes make the assertion that we do not have to explain why a body persists in its motion. Nor does he come even remotely close to implying it. To say as Descartes does that there is no reason why we should think that a moving body would ever stop its motion on its own accord and with no other impediment does not imply that there is no explanation for its continuing to move. To think otherwise is mistaken. Supposing that there is no reason for thinking that not p (or even to suppose that there is no reason for not p) does not imply that there is no explanation for p. So if I assert that there is no reason to think that the sun will not continue in existence tomorrow, I am not in the least suggesting that there is no explanation for why it will continue in existence tomorrow. By the same token, to say that I am easily persuaded that a square will remain square unless something changes its shape does not imply that there is no explanation for its remaining square if nothing changes its shape. Indeed, as is well known, Descartes goes on to provide an explanation in terms of God's immutability. My claim is that Descartes thinks this explanation in terms of God's immutability is only a partial explanation of the continued motion of bodies. We also need to posit a force or cause in the moving body. I would argue similarly that these passages contain no assertion that we do not need to posit a mover or a moving force when a body is in a state of uniform motion.

If Descartes thinks that motion understood as a state still requires an action or force in the body for it to continue, is there, then, any significance to his reconceptualization of motion as a state as opposed to a change? Yes, it is extremely significant, but, contrary to the usual interpretation, not because it entails that motion lacks an efficient cause or even that it lacks an efficient cause in the physical world. Rather, its significance is that motion has no natural endpoint and thus no final cause.[20] The crucial feature of Aristotelian change is that it does have a natural endpoint, but a state need not have a natural endpoint.[21]

4. Newton on *Vis Inertiae* or the Force of Inactivity

Let me turn now to Newton, having earlier claimed that Koyré's interpretation of him appears to be inconsistent. It appears to be inconsistent to assert both that Newton thinks motion does not need a cause or force because it is a state and that Newton explains why bodies persevere in their states by attributing to matter a certain force or power, namely the *vis insita*, which is defined by Newton "as a certain power of resisting by which every body, *quantum in se est*, continues in its present state" and which Newton identifies with "the force of inertia."[22]

Whether Newton in fact thinks uniform motion requires a force is a matter of continuing dispute among leading scholars. John Herivel has argued that Newton's

understanding of *vis insita* or *inertia* changed over time.[23] It is clear from some of the manuscripts leading up to the *Principia* that Newton did hold the Aristotelian view that some force is required to maintain a state of uniform motion, but, according to Herivel, he came to view *vis insita* as a potential force that is exercised only when a body changes its state. So in defining *vis insita* in the *Principia* Newton asserts:

> But a body only exerts this force when another force, impressed upon it, endeavors to change its condition; and the exercise of this force may be considered as both resistance and impulse; it is resistance so far as the body, for maintaining its present state, opposes the force impressed; it is impulse so far as the body, by not easily giving way to the impressed force of another, endeavors to change the state of that other.[24]

Carl Hoefer has pointed out to me that Herivel's interpretation of this passage suggests a way of reconciling Koyré's apparently contradictory claims that Newton thinks uniform, rectilinear motion does not require a force because it is a state and that Newton explains why bodies persevere in motion by appealing to a force. If the force is activated only to resist changes of motion, then it would be true that a body would not require a force to continue in motion so long as it is not acted on by other bodies.

However, both Alan Gabbey and J. E. McGuire have responded to Herivel by arguing that even in the *Principia*, Newton did not think of *vis insita* as merely dispositional.[25] McGuire argues that Newton's *vis insita* must be understood not only as a disposition to oppose an impressed force and to endeavor to change the state of another body but also as a force of persistence that "maintains the body before *and* after it is affected by an opposing force."[26] He explains that Newton, in contrast to Descartes, who thinks that motion along a right line can never be physically actualized, "conceives natural motion along a right line as a physically possible condition of bodies that could and would obtain in the absence of opposing forces. . . . [I]n Newton's view, if there were but one body alone positioned in absolute space, its state of resting or moving would be conserved by its inherent force."[27]

We need not settle this dispute here. Even on Herivel's account, there was a period in Newton's life when he held both that motion is a state and that there must be a force inherent in the moving body to explain the persistence of that state. So in a manuscript composed sometime around 1684, Newton asserts that "[t]he internal and innate force of a body is the power by which it persists in its state of rest or of moving uniformly in a straight line."[28] Therefore, even on Herivel's interpretation, it cannot be Newton's reconceptualization of motion as a state that explains why he comes to conceive of uniform motion as not requiring a force.

McGuire claims to be arguing in his essay for the conclusion that even though Newton speaks of motion of as a state, it is still a type of change.[29] But McGuire never does argue for this conclusion directly. As near as I can tell, he seems to think that it is a consequence of his argument showing, against Herivel's interpretation, that

even the mature Newton thinks that uniform motion requires an inherent force. But I would claim that McGuire's inference that Newton believes motion is a change is a non sequitur. To draw such a conclusion, one has to assume that Newton believes that only changes require causal explanation, and not the perseverance of states not conceived as changes. But no evidence has been provided in support of this further assumption. And it certainly is not some sort of a priori conceptual truth that only changes require causal explanation.

Suppose, now, that McGuire and Gabbey are correct in claiming that Newton does think that inertia is a force internal to the moving body. What, if anything, is the difference between the scholastics' notion of impetus and Newton's notion of inertia, since both are apparently forces internal to the moving body? E. J. Dijksterhuis says that they are the same. But let me make two suggestions to account for their difference.[30] First, Newton contrasts the force of inertia with impressed forces. He defines an impressed force as "an action exerted upon a body to change its state, either of rest or of uniform motion in a straight line," and he asserts that it "remains no longer in the body when the action is over" (note that Newton follows the Aristotelians and not Descartes in locating the action of the mover in the moved body).[31] So impressed forces have an external origin, whereas inertial forces are innate; they belong to the nature of the thing. The scholastics' notion of impetus could therefore not count as an inertial force, because even though the impetus is internal to the projectile, its origin is still external. Indeed, Buridan refers to impetus as impressed force.[32] But impetus also could not be an impressed force in Newton's sense of the term, because Newton's impressed force ceases to exist when the action of the external body ceases. Newton is explicit that bodies maintain their new states—so they persevere in motion—not by impressed force but only by inertia.[33]

The second difference arises from Newton's claim that the *vis insita* or *vis inertiae* "differs nothing from the inactivity of the mass, but in our manner of conceiving it."[34] Impetus, however, is a force of activity. McGuire would apparently deny this second difference, for he describes the Newtonian force of persistence as an "agency."[35] While I agree with McGuire that *vis insita* understood as an impulse to change the state of another body does seem to involve something that looks like agency, I don't see why *vis insita* understood as a force of persistence should not be regarded as a genuine force of inactivity, that is, as a force that does not involve agency.

If Newton really thinks that the force in virtue of which a moving body continues in motion is a force that does not involve activity, and that is the literal meaning of *vis inertiae*, then on this point he differs importantly from Descartes, who on my reading holds that a moving body acts on itself. It is tempting to link this fundamental disagreement as to whether the force that keeps a body in motion is active or inactive to a difference in their views about what counts as a passion. To my knowledge, Newton, in contrast to Descartes, does not refer to motion as a passion or speak of motion as something a body undergoes or suffers (*pati*). Accordingly, since motion is not a passion, it would not require a corresponding action or active force.

But the language of Newton's early formulations of his third law of motion suggests that he does regard change of motion as a passion. He says that every body undergoes or suffers (*pati*) a reaction only to the extent that it acts on another.[36] A reaction is the action of a body B on a body A that is acting on it, and it results in a change of motion in body A. To say that a body undergoes or suffers (*pati*) a reaction is thus to suggest that its change of motion is a passion. My claim here is that in addition to his more famous doctrine of the correspondence between action and reaction, a doctrine J. L. Russell has shown goes back to Aristotle[37] Newton also retains the Aristotelian linking of action and passion, so that only where there are passions will there be actions (or reactions, since all reactions are actions).[38] But since motion is not a passion, it will not require a corresponding action. This is not, however, to say that motion needs no force at all. It just requires an inactive force.

Another sort of speculation about the difference between Newton and Descartes concerns their understanding of rest. I have argued that Descartes thinks that the continuation of rest, as well as motion, requires an internal principle or force, and I supposed that he views this force as active, because there is no indication that he has the notion of an inactive force. But one can imagine someone who, like Newton, follows Descartes in thinking that rest and uniform rectilinear motion are equally states and yet rejects the view that rest is a passion would then also deny that uniform rectilinear motion is a passion. And if one were further committed to the view that only passions require active forces, then it is a small step to the conclusion that uniform rectilinear motion requires a force of inactivity.

Now the notion of such a force of inactivity might seem to be a contradiction in terms. Richard Westfall describes it as paradoxical, and I. Bernard Cohen says it "seems outlandish to a twenty-first-century reader." [39] As Maier puts it, in modern physics we do not think of inertia as a force but rather as the absence of force: "modern mechanics postulates that uniform motion does not require any force to make it continue, but instead persists of its own accord because of the inertia of the mass involved." [40] I am not so sure, however, that Newton's notion of inactive force is contradictory. It seems perfectly plausible to me to think that something can be a cause in virtue of being inactive, that is, in virtue of not doing anything, especially if the effect in question is that something remains the same. So one might plausibly say that it is precisely because matter is inactive that it persists in the state it is in. It is matter's inactivity that causes it to remain in the state it is in. And if we think of causes as forces, which also seems plausible, then I do not think it is at all paradoxical to speak of the inactivity of matter as a force.

5. Conclusion

I think that there is an important transition to our modern conception of inertia (as the absence of force) that operates through the Cartesian reconceptualization of motion. First, Descartes reconceptualizes motion as a state, but since he still

conceives of motion as requiring a corresponding action (either because it is a passion or because the continuation of a state requires an action) he remains far from our modern conception of inertia. The significance for Descartes of viewing motion as a state concerns final causation: states do not necessarily have an endpoint or final cause. But once motion is seen as a state and not as a change, then the way is paved for Newton to cease regarding motion as a passion and thus to cease viewing uniform rectilinear motion as requiring an active cause. This in turn paved the way for us to dispense with the notion of an inactive cause of motion and to reach our modern conception of inertia in which no cause is required for a body to continue to move uniformly in a straight line.

Thus, contrary to Koyré's oversimplified account, the question of whether uniform motion is thought to require an efficient cause does not turn directly on the question of whether it is viewed as a state or as a change. Instead, the more revealing conceptual questions about efficient causation are, first, whether motion is viewed as a passion, and second, whether the continuation of any state requires an active cause. There is evidence that Descartes thinks of motion as a passion and concludes that it requires a corresponding action, and there is even clearer evidence that he thinks that the continuation of a state requires an internal principle or force. Newton does not think of uniform motion as a passion. He regards only changes of motion as passions, and apparently requires active forces only for passions.[41]

This page intentionally left blank

PART III

Cognition

This page intentionally left blank

10

Descartes on Misrepresentation

Any adequate theory of mental representation must include an account of how sensory experience is capable of misrepresenting the world. Misrepresentation occurs, for example, when we look at a straight stick in a glass of water and see it as bent. In order for our visual experience to misrepresent the stick, it must represent the stick, but it must represent the stick as other than it is, as bent rather than straight. To account for misrepresentation, an adequate theory of representation must therefore explain how our sensory experience can represent an object as other than it is.

Many philosophers have offered accounts of representation according to which sense experience cannot or at least does not misrepresent the world in optimal conditions or even in normal conditions.[1] Descartes, however, thinks otherwise. In optimal conditions, our visual experiences represent physical objects as colored. Descartes maintains that this, too, counts as misrepresentation, on the ground that color is not a property of physical objects.

In the *Third Meditation*, Descartes raises the possibility that our ideas of light and colors, sounds, smells, tastes, heat and cold, and the other tactile qualities are materially false (AT VII 43–4; CSM II 30). In explanation of this notion, he says that material falsity occurs in ideas when they represent what is not a thing as if it were a thing (*non rem tanquam rem repraesentant*) (AT VII 43; CSM II 30). He asserts that all ideas are as if of things (*nullæ ideae nisi tanquam rerum esse possunt*) (AT VII 44; CSM II 30). So, for example, the idea of cold represents cold to me as something real and positive. But if cold is a privation of heat, then the idea of cold is materially false, since it represents a privation (a non-thing) as a thing (as something real and positive) (AT VII 43–4; CSM II 30).

Material falsity is thus a kind of misrepresentation: to be materially false, at least as it is characterized in the *Third Meditation*, is to represent a non-thing as if it were a thing. But it is an especially troubling kind of misrepresentation. In her book on Descartes, Margaret Wilson alleges that the concept of material falsity is both a red

herring and an embarrassment in the context in which it is presented in the *Third Meditation*.

In this essay, I will examine Descartes's notion of material falsity. He discusses it not only in the *Third Meditation* but also in the *Objections and Replies* and in the *Principles*. After a brief introduction to Descartes's terminology, I will first examine Wilson's interpretation of the *Third Meditation*. I will argue that, contrary to her reading, Descartes does not believe that our ideas of light, colors, cold, heat, and the like represent what is not a thing as if it were a thing. They are not materially false in that sense. Then I will turn to the *Objections and Replies*. I will argue that both Arnauld's objection challenging the very coherence of the notion of material falsity and Descartes's notoriously obscure reply are based on their acceptance of fundamental elements of the Aristotelian account of perception. Next, I will explore how our ideas of light and colors, heat and cold, and such might be misrepresentations even if they do not represent what is not a thing as if it were a thing. Finally I will provide a reading of the *Principles* passages that is consistent with my interpretation and that also vindicates what I take to be the crucial insight of Wilson's interpretation.

1. Basic Notions

Ideas, Descartes tells us, are thoughts that are as if images of things (AT VII 37; CSM II 25).[2] He says that ideas are as if images of things, rather than that they are images of things, because he thinks that only some of our ideas are images. The imagination, he thinks, can have only corporeal things as objects, and it requires a species that is a real body (AT VII 387; CSM II 265). But he thinks that our ideas represent a variety of things—including God, corporeal and inanimate things, angels, animals, and other men like himself (AT VII 42–3; CSM II 29)—not all of which are corporeal. The idea of God, for example, is not an idea of something corporeal and does not require a species that is a real body. But even if the idea of God is not an image, it is like an image in two respects: (1) there is some thing that I take as the object of that thought, and (2) that thought is a likeness of the thing (AT VII 37; CSM II 26).

Descartes ties the notion of an idea's representing a thing to its containing such-and-such objective reality (AT VII 40; CSM II 28). An idea's objective reality is contrasted with its material or formal reality—that is, with its being a mode of thought or an operation of the intellect (AT VII 8, 40; CSM II 7, 27). The objective reality of an idea, he says, is the "being of the thing which is represented by the idea, in so far as it exists in the idea. . . . For whatever we perceive as if in the objects of ideas, is in the ideas objectively" (AT VII 161; CSM II 113).[3]

Descartes maintains that, strictly speaking, only judgments—that is, affirmations and denials—are true or false. But he also says that ideas can have another kind of falsity, which he calls material falsity (AT VII 36–7, 43; CSM II 25–6, 30). He says that ideas are materially false—they provide material for error—when they represent

what is not a thing as if it were a thing (*non rem tanquam rem repraesentant*) (AT VII 43; CSM II 30).

If an idea represents no thing, Descartes infers that it proceeds from nothing (AT VII 44; CSM II 30). And if it proceeds from nothing, then it can have no objective reality. The reason for this is that an idea can have no more objective reality than its total and efficient cause has formal reality (AT VII 41; CSM II 28–9), and nothing has no formal reality. Thus his account of material falsity commits him to the possibility of ideas that lack objective reality.

Descartes maintains, then, that all ideas are as if of things, but that not all ideas represent things. What is being distinguished here? One plausible answer is that Descartes is claiming that all ideas seem to represent things, but that not all ideas do represent things. Whether Descartes should or even can draw such a distinction has been thought to be problematic. Let us begin with Wilson's argument that the introduction of the concept of material falsity in the *Third Meditation* undermines Descartes's stated agenda for that meditation.

2. Wilson's Account of Material Falsity

In the *Third Meditation*, Descartes is attempting to prove that God exists and that our knowledge of God's existence is prior to our knowledge of the existence of other things outside ourselves, in particular, prior to our knowledge of the existence of bodies. Wilson claims that the concept of material falsity is a red herring in that context because it is ostensibly introduced in order to demonstrate that ideas of sensible real qualities (such as the ideas of cold, of heat, of red) do not by themselves provide sufficient evidence for the existence of anything outside ourselves, but since Descartes also makes use of an independent argument to demonstrate the same conclusion, there is no need for him to introduce the concept of material falsity.[4]

It is an embarrassment, she claims, because it provides the basis for an objection to Descartes's argument for the existence of God. If there can be ideas that are as if of some positive thing, and thus seem to us to have objective reality, but in fact are of nothing and thus have no objective reality, then "the objective reality of an idea is not something the idea wears on its face."[5] If we can be mistaken about how much objective reality an idea has, then perhaps we are mistaken in thinking that the idea of God has so much objective reality (infinite objective reality) that only a being with infinite formal reality could have caused it.

Wilson's conclusion is that Descartes must have had an ulterior motive for introducing the concept of material falsity. She speculates that he "was determined at all costs to maintain that the ideas of sense, even if they are [as if of things], nevertheless fail to exhibit to us any possibly existent quality in an intelligible manner. . . . [I]n an important ('*de re*') sense they are *not* 'of things.'"[6] The implication of her interpretation seems to be, then, that sensory ideas do not have objects, even possible objects; they are merely as if of objects.

In a more recent essay, however, Wilson has modified, or at least clarified, her interpretation of what is involved in an idea's being materially false. She claims that Descartes thinks that "our sensations are representative in two respects."[7] First, the idea of cold represents cold to me (even if cold is a privation). Second, the idea of cold presents cold to me in a certain way, as being such and such. In the first sense, she says that the idea of cold referentially represents cold. In the second sense, the idea of cold presentationally represents something real and positive.

Wilson seems to be implying on this new interpretation that Descartes thinks the idea of cold has two objects. One object is what it referentially represents (a privation); the other is what it presentationally represents (something real and positive). An idea presentationally represents what it appears to be of—that is, what it seems to represent referentially.[8] It is still true on this new interpretation, as it was on Wilson's old interpretation, that the idea of cold does not referentially represent an existent (or even a possible existent); rather, it referentially represents a non-existent.[9]

I am inclined to think that Wilson has got Descartes's motivations wrong. While it is true that in introducing the concept of material falsity Descartes makes use of our sensory ideas to illustrate the possibility that ideas that appear to have objective reality have no objective reality (because they have no cause), he does not think that as a matter of fact sensory ideas lack objective reality. His argument in the *Sixth Meditation* for the existence of bodies makes it clear that he thinks that our sensory ideas, however confused and obscure, are caused by bodies or modes of bodies (AT VII 78–80; CSM II 54–5). And his physics rules out the possibility that the idea of cold referentially refers to a privation. The idea of cold is presumably caused either by a particular motion or range of motions of bodies or by the absence of such motions. But according to his physics, the absence of motion is not a privation, it is not a non-thing. Instead, the absence of motion is rest, and rest is no less of a mode, no less of a thing, than motion.[10] Since he is clearly committed to denying that the cause of the idea of cold is a privation, there is nothing motivating him to deny that the idea of cold has objective reality. And he never does deny it. He considers the possibility that cold is a privation only as a way to introduce the concept of material falsity.

Why does Descartes introduce the concept of material falsity in the *Third Meditation* if he does not believe that sensory ideas lack objective reality? I would argue that the notion of an idea's having less objective reality than it appears to have is neither a red herring nor an embarrassment. Rather, Descartes is anticipating an objection to his argument for the existence of God:

> Nor can it be said that this idea of God is perhaps materially false and so could have come from nothing, which is what I observed just a moment ago in the case of the ideas of heat and cold, and so on. On the contrary, it is utterly clear and distinct, and contains in itself more objective reality than

> any other idea; hence there is no idea which is in itself truer or less liable to be suspected of falsehood. (AT VII 46; CSM II 31)

Wilson rejects this alternative explanation for Descartes's introduction of the concept of material falsity:

> An alternative explanation, that has been suggested to me, is that Descartes was trying to anticipate what he perceived as a possible response to this theological proof: i.e. that a critic might spontaneously object that the idea of God could, like sensations, represent nothing real. However, it seems that the distinction between the clear and the distinct and the obscure should by itself be adequate basis for an answer to this objection: we don't need the theory of material falsity.[11]

She seems to be asserting here that we do not need the concept of material falsity to answer the objection that the idea of God could represent nothing. But if we assume that Descartes holds, as surely he does, that the idea of God appears to represent something real, then the objection that the idea of God might not represent something real just is the objection that the idea of God might be materially false. So the concept of material falsity is essential not to answering the objection but to formulating the objection. If her point is that the concept of material falsity itself will not tell us why the idea of God is not materially false, then her comment seems to be true enough, but irrelevant. We should not expect to discover from the concept of material falsity why one idea is materially false and another is not, any more than we should expect the correspondence theory of truth to tell us which propositions correspond to reality and which do not.

This response to Wilson's objection does not, however, get to the heart of the problem of material falsity. Even if Descartes believes that as a matter of fact ideas of sense are caused by bodies or modes of bodies and hence do have objective reality, he seems committed to the view that it is theoretically possible for a sensory idea to represent a non-thing as if it were a thing.[12] And as consideration of Arnauld's objection to the concept of material falsity reveals, there are good reasons for denying that there can be a discrepancy between what an idea seems to represent—that is, what it is as if of—and what it represents.

3. Arnauld's Objection

Arnauld poses the following very powerful dilemma to Descartes. What does the idea of cold exhibit, if cold is a privation? If, on the one hand, the idea of cold exhibits a privation, then it is true. If, on the other hand, that idea exhibits a positive being, then it is not the idea of cold. And if that idea is not the idea of cold, then the idea itself has no falsity—rather, the falsity resides entirely in our judgment that the idea is the idea of cold (AT VII 207; CSM II 145–6).

3.1. Wilson's Interpretation of Arnauld's Objection

One interpretation of Arnauld's objection suggested by Wilson is that he is arguing that the only coherent notion of representation is presentational.[13] That is, we can interpret his assertion that if the idea of cold exhibits a positive being it is not the idea of cold as meaning that if the idea of cold presentationally represents a positive being, it does not represent cold (assuming that cold is a privation).

If this is what Arnauld has in mind, then his objection might seem to be easily overcome. We can defend Descartes by defending the plausibility of his other notion of representation, referential representation. So we might argue, for example, that it is entirely plausible to suppose that I can have an idea whose object is a horse, in the sense that it appears to be of a horse, but which in fact is caused by a cow, and thus might be said, in the other sense, to have the cow as its object.[14] Such an idea, by presentationally representing a horse and referentially representing a cow, misrepresents the cow.

Although this strategy helps with the general problem of explaining how an idea that is caused by one thing might still exhibit something else and thereby misrepresent the first thing, it does not help with the specific problem of explaining how the idea of cold could misrepresent cold, supposing cold to be a privation. If cold is understood to be a non-thing and hence ineligible, on Descartes's view, to be a cause, it is hard to see how an idea could referentially represent cold. Wilson concedes this, claiming that we need to suppose that Descartes's notion of referential representation is neither causal nor demonstrative; but in the absence of a positive account of referential representation, it seems fair to say on Arnauld's behalf that this strategy for defending Descartes is empty.

3.2. The Aristotelian Interpretation of Arnauld's Objection

There is a second, very different interpretation of what underlies Arnauld's objection. On this second interpretation, Arnauld would grant that there is a distinction like the one Wilson draws between presentational and referential representation, but his point would then be that an idea cannot referentially represent something without presentationally representing it.[15] If our starting point is an Aristotelian theory of cognition, then a very interesting argument can be developed along these lines.[16]

According to the Aristotelians, we have cognition of forms, and in order for a subject to have cognition of a form—be it sensory cognition of an accidental form or intellectual cognition of an essential form—that very form must be received in the cognizing subject. The reception of forms also underlies the Aristotelian account of becoming: something becomes brown in virtue of receiving the form of brown, or something becomes a horse in virtue of receiving the form of horse. But since no part of us becomes brown in virtue of our seeing something brown and since we do not become a horse when we come to have knowledge of a horse, Aristotelians

distinguish two ways in which forms are received by a subject. Aquinas, for example, distinguishes natural or material reception of forms from spiritual or immaterial reception of forms. When a form is received naturally or materially by a subject, the form is predicated of that subject. When a form is received spiritually or immaterially, the subject has cognition of the form, but the form is not predicated of it.[17] So one and the same form, say the form of a horse, can have two kinds of being: it exists naturally or materially in a horse, but it exists spiritually or immaterially in our soul when we have knowledge of a horse, or, to take our other example, the accidental form brown exists naturally in a brown thing (say, a horse) but spiritually or immaterially in our eyes when we see a brown horse.

Underlying the Aristotelian view that cognition involves the reception of form are three fundamental theses. The first is that to have cognition of something is to become the same as it is. The second is that things are the same in virtue of sameness of form, even if they receive the form differently. The third is that non-accidental causation involves the production of a form in a patient by an agent which is the same in form as that produced.[18]

Perception of the Aristotelian proper sensibles, such as color, sound, heat, and cold, will therefore involve the production of a form in a patient, the cognizing subject, by an agent which is the same in form. In order for that production of form to result in cognition and not in alteration, the form must come to exist in the cognizing subject spiritually or immaterially. But since the agent is the same in form as the cognizing subject, one can readily understand why the Aristotelians might have thought both that the proper sensibles are really existing external things and that we cannot be mistaken about them.

That Arnauld's objection to Descartes's notion of material falsity is based on an account of cognition that is fundamentally Aristotelian is revealed by his own restatement of that objection. He asserts that the idea of cold is coldness itself as it exists objectively in the intellect, so that if cold is a privation, it cannot be objectively in the intellect through an idea whose objective existence is a positive being (AT VII 206; CSM II 145).[19] The crucial claim in this assertion is that the idea of cold is coldness itself as it exists objectively in the intellect. This is just the sort of claim that a seventeenth-century Aristotelian would make, given the terminological shift of referring to what Aquinas called spiritual or immaterial existence in the soul as objective existence.

I do not mean to imply that in making this claim, Arnauld is accepting the three fundamental theses identified earlier as underlying the Aristotelian theory of cognition. But I do take Arnauld to be endorsing what I take to be the most fundamental element of the Aristotelian theory of cognition, namely, the doctrine that we have cognition of things in the world when they come to have another kind of existence in us. In other words, in asserting that the idea of cold must be coldness itself existing objectively in the intellect, Arnauld is committing himself to the view that what an idea referentially represents must itself exist in the intellect objectively. In order

to clinch the conclusion that a sensory idea must presentationally represent what it referentially represents, he needs only to claim that an idea presentationally represents (it appears to be of) what exists objectively in the intellect. That is, a sensory idea cannot be caused by something other than what it presentationally represents because (1) it presentationally represents what exists objectively in the soul and (2) what exists objectively in the soul is the same as what produces it.[20]

It is important to note, however, that several prominent Aristotelians would have rejected this sort of argument precisely because they wanted to allow for the possibility of sensory misrepresentation. As David Clemenson has shown, there were important disputes among the scholastics over whether we could have sensations of non-existents. By the early seventeenth century, it was commonly held by Jesuit commentators on *De Anima* not only that God could miraculously cause us to have direct cognition of non-existents but also that there could be natural causes of the direct cognition of non-existents.[21] One of these commentators, Ruvio, has an especially interesting account of one such natural case, that of the rainbow, which I will discuss, but first it will be useful to consider the views of Aquinas, who also thinks that the senses can be fallible with regard to the proper sensibles in certain rare instances.

Aquinas holds that the senses have cognition of things insofar as there is a likeness of the things in the senses, but he distinguishes three different ways a likeness of something can be in the senses: (1) as the likenesses of proper sensibles (color, sound, heat, and cold) are in the senses, which he characterizes as being first and essentially (*primo et per se*); (2) as the likenesses of common sensibles (movement, rest, number, shape, and size) are in the senses, which he characterizes as being essentially but not first (*per se sed non primo*); and (3) as the likeness of a human being is in sight, which is accidentally, because it is in sight not insofar as it is a human being but insofar as it is a colored thing that happens to be a human being. He thinks that even if the senses are functioning properly, we can make false judgments when the likeness is in the senses in the second and third ways, because in those cases the sense is referred only indirectly to its object. But in the first case, that of the proper sensibles, we can have a false cognition only if the sense organ is defective and the sensible form is not received properly. So he explains that sweet things seem bitter to sick people because of corruption of the tongue.[22]

For our purposes, there are two important features of Aquinas's account of this limited fallibility of the senses regarding the proper sensibles. First, it seems to be founded on the teleological assumption that a patient is naturally disposed to receive certain forms from an agent and that a patient that is not defective will receive those forms properly. Second, Aquinas has committed himself to the view that there can be a discrepancy between what is received immaterially in the senses and what we seem to be aware of. He thinks that when the sensible form of sweetness is not received properly by the senses, it can happen that we seem to be aware of bitterness.

Ruvio's analysis of the rainbow is similar to Aquinas's account of the sick person's misperception of sweetness, in that he also thinks a sensible form (which he refers to as the species) is received improperly and thus appears as something else, but he attributes this improper reception not to a defect in the sense organ but rather to the distance of the object from the sense organ. As he explains:

> in the case of the rainbow the eye sees light that appears to it as red, or as some other color—not through a species of color, but through a species of light. Thus the eye sees by an act of vision which is identical to that by which the very same object would be seen if there were no deception. This is proved as follows. The eye sees the apparent color, which is really light, through species that are not species of color; therefore these species must be species of light. This is evident, for inasmuch as the object is actually light, and [yet] color appears, the species through which it appears must be either of color or of light. The minor premise is proved [in two ways. First: the object] is not seen through a species of color, for the species is produced naturally by an object that really exists; and it is evident that a non-existent object cannot produce a species of itself. But there is no color present by which [a species] could be produced; therefore [the species] can only be produced by light, and it can represent only one thing: light. Secondly, it is proved by the fact that if the light which is seen in the rainbow under the appearance of color were close by, it would doubtless impress species of itself into the eye, through which it would be seen as light; therefore when it is far away it produces the same species in the same eye, however imperfect [those species may be], for every natural agent always produces an effect of the same nature, an effect that is more or less perfect according to whether the agent is closer or farther away. But light is a natural agent with respect to [its] species. Therefore the species it produces at a greater distance is of the same nature as the species it produces when close by, though [that species] is much more imperfect, and represents the light less distinctly—and that is why a vision of light is produced, although under the appearance of color.[23]

Ruvio, like Aquinas, apparently holds that in most circumstances, when the sense organs are functioning properly and the objects are not too far away, the senses are infallible with regard to the proper sensibles. Like Aquinas, he also allows, however, that there can be a kind of falsity even with regard to the proper sensibles, because something received in the senses (light) can appear as other than it is (as color). Indeed, he says explicitly that the species of light both represents light and appears as color.[24]

So Arnauld's objection to Descartes—that an idea cannot represent something other than what it appears to be of—could equally well be directed against the views of Aquinas and Ruvio. Once again, it might be construed in two very different and even opposed ways. First, it might be construed as relying on the view that there is

no coherent notion of a sensible species (or an idea) representing an object besides its presenting that object. So if a species appears as color, that is what it represents, regardless of what that species is or what causes it.

Second, it might be construed as relying on the view that an idea presentationally represents what exists objectively in the soul. On this second interpretation, the crucial issue dividing Arnauld on the one hand and Aquinas and Ruvio on the other is whether something existing objectively in the soul can appear to be other than it is.

One might reasonably anticipate that in responding to Arnauld, Descartes will either (1) agree with Aquinas and Ruvio that something existing objectively in the soul can appear to be other than it is or (2) reject the Aristotelian theory of cognition according to which things that exist objectively in the soul are the same as the things outside the soul that produce them, differing only in their mode of being.

4. Descartes's Response to Arnauld

Descartes's response to Arnauld's objection is considered to be one of the most obscure and unsatisfactory passages in the entire Cartesian corpus. He agrees emphatically with Arnauld that if cold is a privation and the idea of cold exhibits a positive entity, the idea of cold is not the idea of cold (AT VII 234; CSM II 164).

Of this response Wilson says:

> Although Descartes seems to give away the store here, I think he has merely expressed himself ineptly. He does not really intend to retract his position that a particular "positive" sensation counts as the "idea of cold," even if cold is in fact a privation. Despite apparent verbal indications to the contrary, he is really continuing on his original track: the sensation of cold referentially represents cold (let's suppose a privation)—but fails to present cold as it is (namely, as a privation). In the latter respect only it is not the idea of cold "but something else, which I wrongly take for this privation."[25]

I think, however, that Descartes means to say what he says. Under Arnauld's acute questioning, he does intend to retract his apparent position in the *Third Meditation* that the idea of cold would represent cold even if cold were a privation. He wants to say instead that if cold is a privation, the idea of cold is not the idea of cold. But isn't that statement contradictory? Isn't it impossible for the idea of cold not to be the idea of cold?

It is not impossible. Confusion arises because the expression "the idea of cold" makes it sound as if there is an idea that is identified by an object—cold—that it represents. But instead, I would claim, Descartes sometimes uses the expression "the idea of cold" merely as a kind of name for an idea. When he agrees with Arnauld that if cold is a privation, then the idea of cold is not the idea of cold, he is using the expression "the idea of cold" in two distinct senses. What he means is that a

particular idea that is called the idea of cold is not of cold in the sense of having cold as its object.

An alternative way Descartes formulates his response is this: If cold is only a privation, the idea of cold is not coldness itself as it exists objectively in the intellect. Instead, the idea of cold is a sensation that has no existence outside the intellect (AT VII 233; CSM II 163). The surprise in his responding this way is that he does not take the opportunity to make a clean break with the Aristotelian account of cognition by denying that it is ever the case that something existing in the soul has another mode of being outside the soul. On the contrary, in his *Replies to the First Objections*, he asserts that "the idea of the sun is the sun itself existing in the intellect—not of course formally, as it does in the heavens, but objectively, that is, in the way in which objects are wont to be in the intellect" (AT VII 102; CSM II 75).

His use of this sort of language, speaking of one and the same thing, the sun itself, having two ways of existing, depending upon whether it is in or out of the soul, implies an endorsement of the most fundamental element of the Aristotelian account of cognition."[26] He is not entirely sure whether things exist objectively in the intellect or in its ideas (as indicated by his saying both—AT VII 233; CSM 163: AT VII 161; CSM II 113–4). But in either case his view is similar to the Aristotelian view in that he thinks cognition occurs when things that exist outside the soul come to have another kind of existence in us.[27]

Thus on my reading of Descartes's response to Arnauld, it is Descartes's acceptance of the Aristotelian view that an idea is what it is of, but just in a different mode of being, that underlies his agreement with Arnauld that if the idea that we call the idea of cold is not coldness itself existing in the intellect, then it is not the idea of cold. But in making this concession to Arnauld, Descartes may seem to be conceding to Arnauld that the idea that we call the idea of cold is not a misrepresentation and thus that the falsity resides entirely in our judgment. After all, if the idea that we call the idea of cold does not represent cold, it cannot misrepresent it either.

I would argue, nevertheless, that Descartes has the better of the exchange. He has conceded to Arnauld that it is not because we have an idea of a non-thing that exhibits it as a positive thing that we would be led (if cold were a privation) to make the mistaken judgment that there is a positive being outside the mind that is producing the sensation. Nevertheless, he still can say, and does say, that it is because we have an idea that seems to be as if of a positive being—we have an idea that seems to us to be caused by some positive being existing outside us—that we would be led (if cold were a privation) to make the mistaken judgment that there is something outside the mind producing the sensation.

In other words, Descartes has conceded to Arnauld that if cold is a privation the idea of cold does not misrepresent cold. But it does not follow that the idea of cold does not misrepresent how things are external to us. The idea of cold seems to represent some positive being outside the mind, and therefore it misrepresents how things are if it does not.[28]

This defense might still seem inadequate. In making his concession to Arnauld that if cold were a privation the idea that we call the idea of cold would not misrepresent cold because that idea would not be coldness itself existing in the intellect, Descartes has not retreated from the view expressed in the *Third Meditation* that such an idea would lack objective reality. Given his further assertion that "whatever we perceive as if in the objects of ideas, is in the ideas objectively" (AT VII 161; CSM II 113), one is led to wonder how an idea lacking objective reality could presentationally represent any thing. How could it be as if of a thing? If we could understand how an idea lacking objective reality might be as if of something, then perhaps we could see how that idea might misrepresent the way things are, even if it fails to misrepresent any particular thing in the world.

There is, moreover, an additional problem. If we are to make any sense of Descartes's search for the efficient cause of the objective reality of an idea, it must be understood as the search for a causal explanation of the idea's content.[29] Accordingly, the reason why an idea that had no objective reality would not need such an efficient cause is that there must be some sense of having content according to which an idea lacking objective reality would not have content. But if such an idea could still have content in the sense of being as if of something, why shouldn't there be an efficient cause of its content in that sense? If we attribute to Descartes two distinct notions of content, why must there be an efficient cause of an idea's having content in the sense of representing a thing referentially, but not necessarily of an idea's having content in the sense of presentationally representing something?

Descartes's response to Arnauld does suggest a way to reply to these deeper problems. He tells Arnauld that one should not ask, as Arnauld did, what the cause is of the positive objective being in virtue of which the idea is materially false because "I do not claim that an idea's material falsity results from any positive being; it arises solely from the obscurity of the idea—although this does have something positive as its underlying subject, namely the actual sensation involved" (AT VII 234; CSM II 164).

I take this remark to suggest the following two possible responses to the problem of how an idea lacking objective reality can still be as if of something: (1) an idea can be as if of something in virtue of its material or formal reality, or (2) an idea taken materially or formally can be as if of something in virtue of its obscurity. In either case—and it is not important for our purposes to decide between them—Descartes's point is that an idea's being as if of something is not conceptually or logically connected to its having objective reality. An idea taken materially or formally—in other words, an idea considered as an operation of the mind—can also be as if of something.[30]

Two corresponding responses to the problem of finding an efficient cause for the content of ideas lacking objective reality are also suggested: (1) if the idea is taken to have content in virtue of its material or formal reality, then the efficient cause of the content of the idea is the efficient cause of the idea's material or formal reality,

or (2) if the content of the idea is taken to arise from the idea's obscurity, then that content need not have an efficient cause.

5. The *Sixth Meditation*: How Ideas Containing Objective Reality Might Be Misrepresentations

Given that sensations do contain objective reality, does Descartes think they can be misrepresentations? If so, how? Although we have just seen how an idea lacking objective reality might still be as if of something, Descartes seems to think that what we perceive as if in the object of an idea that has objective reality—and as a matter of fact all our ideas do have objective reality—cannot be something that is not contained objectively in the idea. Otherwise, there would be no point in his asserting as he does that "whatever we perceive as if in the objects of ideas, is in the ideas objectively." This assertion thus suggests that he agrees with Arnauld against Aquinas and Ruvio in maintaining that what our ideas seem to represent must exist in those ideas (or in the intellect) objectively. And if, as we have also just seen, Descartes accepts the Aristotelian theory of cognition according to which the objective reality of an idea just is the object of the idea in another mode of being, there would seem to be no possible room for ideas containing objective reality to be misrepresentations.

On the other hand, Descartes's discussion of the possible causes of our sensations in the *Sixth Meditation* seems to imply that one can coherently suppose that even though sensations do contain objective reality, they are misrepresentations; moreover, his embrace of the new physics seems to commit him to the view that as a matter of fact sensations do misrepresent the properties of bodies.

To see if there is a solution to this puzzle, we need first to examine some difficult concepts that play a prominent role in Descartes's argument for the existence of bodies in the *Sixth Meditation*.

Descartes argues that God would be a deceiver if our sensations were caused by something in which their objective reality is contained eminently and not formally, as they would be, he tells us, if they were caused by some creature more noble than bodies. God would be a deceiver because we have a strong propensity to believe that our sensory ideas are caused by bodies and we have no faculty to discover that they are not (AT VII 79–80; CSM II 55).

What does he mean by speaking of the objective reality of an idea being contained formally or eminently in the thing producing that idea? The standard interpretation of that distinction is reflected by the Haldane and Ross translation of Descartes's definitions of these terms in the *Replies to the Second Objections*:

> IV. To exist formally is the term applied where the same thing exists in the object of an idea in such a manner that the way in which it exists in the object is exactly like what we know of it when aware of it; it exists eminently when, though not indeed of identical quality, it is yet of such an amount as to be able to fulfil the function of an exact counterpart. (HR II 53)

According to this translation, it would be impossible for an idea whose objective reality is contained formally in the object producing it to be a misrepresentation, since the object is exactly as it is perceived by us.

The Cottingham, Stoothoff, and Murdoch translation is slightly different:

> IV. Whatever exists in the objects of our ideas in a way which exactly corresponds to our perception of it is said to exist formally in those objects. Something is said to exist eminently in an object when, although it does not exactly correspond to our perception of it, its greatness is such that it can fill the role of that which does so correspond. (CSM II 114)

One could go either way on whether exact correspondence amounts to exact resemblance, but the Haldane and Ross choice of "is like" is a better choice than the Cottingham, Stoothoff, and Murdoch choice of "corresponds." Thus, it would appear from this crucial passage that an idea that contains objective reality can misrepresent something in the world only if what exists objectively in that idea is contained eminently in its cause.

Consider the *Sixth Meditation* counterfactual scenario in which God made the world in such a way that objects more noble than bodies cause our sensations (which Descartes would agree is a possible scenario, on the further supposition that God also gave us some means of discovering the true causes of those sensations). In that case, there would be a discrepancy between what our sensations seem to represent, namely bodies, and the objects causing them. But what would exist objectively in those sensations? Would it be the objects more noble than bodies causing the sensations that exist objectively in them, in which case the sensations would seem to represent things that do not exist in them objectively? Or would it be bodies that exist objectively in those sensations, in which case the objects causing the sensations would not themselves exist objectively in them?

If we understand an effect to be contained eminently in its cause when it has a nature different from and inferior to that of its cause, then there are grounds for supposing that it would not be the objects more noble than bodies that exist objectively in the understanding.[31] Thus the discrepancy would arise because what exists objectively in the idea is a different object from the object causing the idea.

So it might seem as if there is an easy solution to the problem of explaining how our sensations might be misrepresentations even supposing that they do have objective reality. Descartes's use of the notion of eminent containment seems to introduce as a theoretical possibility that an idea might represent something that is not contained in it objectively. In other words, his use of the notion of eminent containment might seem to amount to a rejection of the Aristotelian theory of cognition, insofar as the Aristotelian theory requires as a necessary condition for cognition that the object of cognition must itself exist in the soul, albeit in a different mode of being. Indeed, in the definition of eminent containment from the *Replies to the Second Objections* quoted earlier, Descartes refers to the eminent container

not merely, as he does in the *Meditations*, as the cause of the idea, but as the object of the idea.

But Descartes's reply to Arnauld calls this solution into question. Even if it is true that in the *Replies to the Second Objections*, Descartes refers to the cause of an idea that contains only eminently what is in the idea objectively as the object of that idea, he can very plausibly be read as conceding in his subsequent reply to Arnauld that an idea represents something only if that very thing exists in the idea objectively. On this interpretation of his reply to Arnauld, it would follow that if our sensations that are as if of bodies and contain bodies objectively were in fact caused by things more noble than bodies, they would not represent those things. It might still be said that those sensations misrepresent the way the world is without misrepresenting anything in the world, because they represent the world as if bodies exist in it. But since they would not represent anything in the world, they could not misrepresent anything in the world.

A second shortcoming of this solution is that it does not apply to the scenario that is of primary importance. Our primary concern is not the counterfactual scenario in which our sensations are caused by something other than bodies but the actual scenario in which bodies cause our sensations. That is, our primary concern is cases in which what exists in our ideas is contained formally in their cause. Can such ideas be misrepresentations? On the standard interpretation of formal containment, according to which there must be an exact resemblance between what exists in our ideas objectively and what is contained formally in their object, such ideas could not be misrepresentations.

But the standard interpretation should be rejected, because it is based on mistranslations of Descartes's definitions of those terms in the *Replies to the Second Objections* (AT VII 161):[32]

> IV. Eadem dicuntur esse *formaliter* in idearum objectis, quando talia sunt in ipsis qualia illa percipimus; & *eminenter*, quando non quidem talia sunt, sed tanta, ut talium vicem supplere possint.

Cottingham, Stoothoff, and Murdoch, following Haldane and Ross, mistakenly add the crucial term "exactly," even though there is nothing answering to it in the Latin. A more accurate translation implies, first, that in the case of formal containment there is some resemblance, but not necessarily an exact resemblance, between what we perceive as if in the objects of our ideas and what is in those objects, and second, that in the case of eminent containment there need not be any resemblance between what we perceive as if in the objects of our ideas and what is in those objects:

> IV. Whatever things are in the ideas themselves objectively are said to exist *formally* in the objects of the ideas when they are in the objects such as we perceive them. They are said to exist *eminently* in the objects of ideas when they are not such, but are so great that they can fill the role of such.

This weaker reading is confirmed by the fact that in the *Sixth Meditation* argument for the existence of bodies, Descartes asserts both that what exists objectively in our sensations exists formally in bodies and that bodies may not exist exactly as comprehended by the senses.[33] If formal containment involved exact resemblance, Descartes would be contradicting himself in making these assertions.

Descartes therefore believes that there can be a discrepancy between what we perceive as if in the objects of our sensory ideas and what is contained in those objects, not only when what exists objectively in those ideas is contained eminently in the objects causing them but also when it is contained formally in them, because, as he explains, "this comprehension of our senses is in many things obscure and confused" (AT VII 80; CSM II 55). In the *Third Meditation*, he suggests even more strongly that our sensation of the sun bears little resemblance to it (AT VII 39; CSM II 27).

Our sensory idea of the sun is an extremely important example. We have already seen that Descartes says in the *Replies to the First Objections* that our idea of the sun is the sun itself existing objectively in the intellect. And it is clear from the *Sixth Meditation* argument for the existence of bodies that what exists objectively in our idea of the sun exists formally in the sun. Thus it is very plausible to interpret Descartes as maintaining generally that what exists objectively in a sensory idea is contained formally in its object when that very object exists in the idea objectively.[34] Moreover, since our sensory idea of the sun does not represent the sun as it is in the world, indeed, since it bears little resemblance to it, it follows that on Descartes's view there need not be much resemblance between an object as it exists objectively and the same object as it exists formally. In this way, then, our sensory idea of the sun can be a misrepresentation of the sun. It is also materially false, in the sense that it would lead us to make false judgments, because we are naturally inclined to judge that objects are exactly as we perceive them.[35]

So I think that Descartes's account of formal containment does explain how our ideas can misrepresent things in the world. But it is not so clear whether it can be employed to explain how our ideas of color, heat, cold, and so on can misrepresent bodies or their properties. The problem is this: formal containment requires that there be at least some resemblance between the object of our idea and what is contained in the idea objectively, but given that Descartes seems to think that there is no resemblance between body and the ideas of color, heat, cold, and so on, it would follow that what exists objectively in those ideas could not exist formally in bodies.

This problem suggests that there is some plausibility in attributing to Descartes a fine-grained account of formal and eminent containment: that some of the things in our sensory ideas of bodies are contained formally in bodies (for example, shape) and others are contained only eminently (for example, heat and color).[36] I do not know of any clear evidence one way or another whether Descartes would endorse such a fine-grained account of formal and eminent containment. But there would

be some obvious puzzle cases on such an account. Consider our idea of the straight stick as bent and our idea of the sun as small. Would Descartes want to say that what is contained in our idea of bentness is contained eminently in the stick or would he want to say that it is contained formally in the stick? Similarly, would he want to say that what is contained in our idea of smallness is contained eminently in the sun or would he want to say that it is contained formally in the sun?

If we reject the fine-grained interpretation of formal and eminent containment, then Descartes's view would be that whatever exists objectively in our idea of body exists formally in its object. But then what should we say about color and heat? Since they have no resemblance to body or its modes, they could not be contained formally in bodies. Yet Descartes refers to them as being in our idea of body, and he asserts, as already noted, that "whatever we perceive as if in the objects of ideas, is in the ideas objectively." But perhaps Descartes does not mean this in the fine-grained sense. Perhaps he means only that if we firmly believe that a certain body is the object of a given idea and have no way of discovering that that belief is false, then that body exists in the idea objectively. Perhaps he wants to allow—and this would put him in agreement with the views of Aquinas and Ruvio—that an idea might be as if of some aspect of a thing that is not in the idea objectively. So, for example, perhaps Descartes would be willing to deny that colors exist objectively in our sensations and to assert instead that modes of bodies existing objectively in our sensations are sufficiently obscure that they appear as colors.

6. Reconciling the *Meditations* and *Replies* with the *Principles*

In constructing my interpretation of Descartes's account of misrepresentation, I have focused on the *Meditations* and Descartes's response to Arnauld. But Descartes also discusses misrepresentation in the *Principles*, and my interpretation may well seem inconsistent with these later remarks. There are two crucial passages. The most important is this:

> In early childhood our mind was so tightly bound to the body that it had no leisure for any other thoughts, except only those by which it sensed what affected the body: and it did not yet refer these to anything located outside itself, but only sensed pain where something occurred harmful to the body; where something beneficial occurred, it felt pleasure; and where something affected the body without much harm or benefit, for the different parts in which and ways in which the body was affected, it had certain different sensations, namely those which we call the sensations of taste, odor, sound, heat, cold, light, color and the like, *which represent nothing located outside thought*. At the same time the mind also perceived magnitudes, figures, motions, and the like, *which were exhibited not as sensations, but as certain things, or modes*

> *of things, existing outside the mind, or at least capable of existing, even though it did not yet recognize this difference among them.* (AT VIIIA 35; CSM I 219; emphasis added)[37]

On one very plausible reading of this passage, Descartes is asserting that as a matter of fact, and not merely as a possibility in principle, our sensations of cold and such do not represent anything outside thought. Thus this passage might seem to provide an important piece of evidence for Wilson's interpretation of Descartes that I have wanted to reject—that Descartes thinks such sensations are not of things. On her interpretation, Descartes thinks that the idea of cold, for example, referentially represents a non-existent, cold. But I have argued that Descartes thinks that as a matter of fact sensations, such as the idea of cold, are caused by bodies or modes of bodies. And one might very plausibly infer from this that he thinks that as a matter of fact sensations referentially represent bodies.[38] This inference would be justified if, for example, one attributes to Descartes the view that the idea of cold is a mode of extension existing in our mind so obscurely that it appears as cold.

Wilson herself at one point wanted to argue that this passage from the *Principles* constitutes a deep change in Descartes's thinking from the *Meditations*, because she read it as implying that sensations are not even as if of (possible) things existing outside our thought.[39] But in her recent essay, she has claimed that there is not such a deep change in Descartes's thinking. She now thinks he does not really mean to deny that sensations are as if of things existing outside our thought, and she cites as evidence for this the other passage. In this second passage, Descartes says that sensations do represent things as if existing in bodies: "but if he examines what it might be, which this sensation of color or pain represents, as if existing in the colored body or painful part, he will notice that he is wholly ignorant of it" (AT VIIIA 33; CSM I 217).[40] On Wilson's current view, Descartes thinks sensations do presentationally represent something; it is just that they do not intelligibly present something.[41]

So how should we read the first passage? When Descartes says that sensations represent nothing outside our thought, I take him to be talking not about what they represent referentially. Instead, he is making a point about what sensations presentationally represent—that is, what they are as if of. But his point is not, as Wilson used to think it is, that sensations are not as if of anything. His point is that what sensations seem to represent (colors, sounds, and the like) are not things that exist outside thought. In other words, although sensations are as if of things existing outside thought, what they are as if of does not exist outside thought.[42] As Wilson puts the point, "we nevertheless tend to take the presentational content of sense experience to be something real, to refer it to external reality."[43] So Descartes does mean it when he says that sensations represent nothing outside our thought, but what he means is fully consistent with the views expressed in the *Meditations* and *Objections and Replies*. That is, Descartes can consistently maintain both that what sensations represent referentially (namely, bodies or their modes) exists outside thought and

that some of what they represent presentationally (colors, heat, and the like) does not exist outside our thought.[44]

What about the second passage, in which Descartes says that we are wholly ignorant of what the sensation of color represents as if in the colored body? I have been assuming all along that Descartes thinks that the sensation of color represents color as if in the colored body. So for my interpretation to be consistent with the second passage his point would have to be that we are wholly ignorant of color.

In the final analysis, then, I think there is something importantly correct in Wilson's assertion that Descartes thinks sensations fail to exhibit to us any possibly existent quality. What the sensation of red, for example, is as if of could not be a mode of extension and thus could not be a mode of body. But it does not follow from this, as Wilson has it, that he thinks such a sensation lacks objective reality and so is not of something. On the contrary, it is very plausible to interpret Descartes as holding that sensations are of bodies or modes of bodies. Still, we cannot, without knowing a great deal of physics, tell what bodies or modes of bodies they are of, since what they are as if of cannot exist in bodies.[45]

Direct Realism, Intentionality, and the Objective Being of Ideas

The aim of this essay is to understand the contrast between two philosophical theories of perception: direct realism and representationalism. In rough formulation, direct realism is the view that when we perceive mind-independent physical objects we are directly or immediately aware of them. Representationalism or indirect realism agrees that we perceive mind-independent physical objects, but denies that we are immediately aware of them. Rather, we perceive physical objects by being immediately aware of ideas that represent them.

This rough formulation of the distinction might make it appear relatively easy to determine whether a philosophical theory counts as a direct realist theory or a representationalist theory. However, this appearance is belied by disputes concerning which historical figures in philosophy count as direct realists and which are representationalists. While it is commonly believed that Aquinas is a direct realist and Descartes is a representationalist, Steven Nadler has argued forcefully that Descartes's and Arnauld's use of the notion of objective being commits them to an essentially Thomistic theory of cognition and that they, too, are direct realists.[1] Nevertheless, it has still seemed to me that Descartes is a representationalist, even though I count myself among those who read Descartes as holding an essentially Thomistic theory of cognition.[2] And this has led me to ask whether Aquinas, perhaps in spite of himself, is also a representationalist. But at the same time, it has led me to call into question my own understanding of the contrast between direct realism and representationalism. Why would other philosophers claim that these theories are direct realist theories? Moreover, it has led me to wonder what is at stake in determining whether a philosopher holds a direct realist or a representationalist theory. What sort of motivations are there for adopting one theory over the other?

The bulk of the essay will be spent answering the first of these questions. My strategy will be to examine in some detail Nadler's various formulations of the contrast between direct realism and representationalism and his arguments that Descartes

and Arnauld are direct realists. But before turning to that first question, let me comment briefly on the second question.

1. Three Motivations for Adopting Representationalism

Among contemporary philosophers, representationalism is typically understood to be motivated by a commitment to the thesis that there must be immediate objects of awareness that have the properties that bodies appear to have but do not have.[3] In order to perceive a coin as elliptical, we must be immediately aware of something that is elliptical. There must be something that has the color that a white cat appears to have in pink light in order to account for our perception of the cat as pink.[4] Understood this way, representationalism is motivated by an explanatory project—that of explaining how sensory illusion is possible. And the fundamental assumption driving this motivation is that in order to perceive a physical object as having some property, there must be an immediate object of awareness that actually has that property.[5]

Representationalism is also linked to foundationalism. It is not a big jump, although it is a jump, from commitment to the thesis that there must be immediate objects of awareness other than bodies that possess the properties bodies appear to have to commitment to the thesis that these immediate objects of awareness are certain and indubitable and hence can provide a secure foundation for empirical knowledge. Understood this way, representationalism is motivated by the epistemological project of providing an indubitable foundation for empirical knowledge.

It is important to distinguish these two projects. One can be committed to the explanatory project without being committed to the epistemological project. That is, one might believe that it is necessary to posit things that have the properties that bodies appear to have in order to explain the possibility of sense illusion without being a foundationalist. However, in order to be a foundationalist who takes sense data as the foundation, then one would also need to be committed to the view that those sense data have the properties that bodies appear to have.

The explanatory project must also be distinguished from a second explanatory project. One might hold as a basic metaphysical principle that direct cognition (awareness) of objects cannot be achieved at a distance. A subject cannot have direct awareness of something with which it is not in immediate contact. Thus it might be claimed, as it was by Malebranche, that a subject of awareness cannot have direct awareness of physical objects that are not in immediate contact with it.[6] The resulting explanatory project is to provide a theory of how we can be in direct contact with some entity that enables us to claim indirect cognition of physical objects. But even if one follows Arnauld in rejecting the view that the sort of presence required for cognition is local presence, that is, lack of spatial distance, and claims instead

that the sort of presence required for immediate cognition is objective presence, one still might construe the notion of objective presence to require that all objects of direct awareness exist objectively in the subject of awareness.[7] On this understanding of objective presence, a theory needs to be provided to explain how something in us can represent external objects in a way that justifies the claim that we are perceiving those external objects.

This second explanatory project is completely different from the first. The assumptions driving the two projects are independent. One can hold that the immediate objects of awareness must have the properties bodies appear to have without holding that the immediate objects of awareness cannot be at a distance. Indeed, one could go so far as to hold that we are often directly aware of physical objects and only fail to be directly aware of them in cases of sense illusion. Conversely, one can hold that the immediate objects of awareness must exist objectively in the subject of awareness without holding that the immediate objects of awareness must be as they appear or that the immediate objects of awareness must actually possess the illusory properties of physical objects.

It is crucially important that these motivations underlying the adoption of representative theories not be confused. It is my belief that Aristotle's theory of cognition and those of his Thomistic followers are driven by the basic assumption that drives the second explanatory project, an assumption held in opposition to Plato, namely, that we can have immediate cognition of objects only insofar as they exist in us. What I take to be the controversial issues of interpretation are, first, whether the Aristotelians were aiming to reconcile this assumption with direct realism, and second, whether it can be made consistent with direct realism or in fact entails representationalism.

2. The Thomistic-Cartesian Theory of Cognition

Let me turn now to the first question, why would philosophers understand the Thomistic theory of cognition as a direct realist theory and is it plausible to interpret it that way? Let me begin with a sketch of basic elements of the Thomistic theory of cognition. Then I will present my reasons for thinking that Descartes retains that theory of cognition and why it has seemed to me to be a version of representationalism.

2.1. The Thomistic Theory

According to Aquinas, following the views of Aristotle, we have cognition of both essential and accidental forms of substances. To have cognition of the essential form of a substance is to have knowledge of the substance. It is in virtue of our having a mind or intellect that we are able to have cognition of these essential forms. Our senses enable us to have cognition of the accidental forms of substances. For example, the sense of sight enables us to have cognition of the brownness of a horse,

but since the color of a horse is not what makes the horse what it is, brownness is considered to be an accidental form of the horse.

Again following Aristotle, Aquinas held that in order for a subject to have cognition of a form, that very form must be received in the cognizing subject. So essential forms are received in the mind, and accidental forms are received in the senses. Now the reception of forms also underlies the Aristotelian account of becoming—something becomes brown in virtue of receiving the accidental form of brown, or something becomes a horse in virtue of receiving the form of horse. However, we do not become a horse when we come to have knowledge of a horse. And although there is still considerable controversy regarding Aristotle's account of sensation, Aquinas saw himself as following Aristotle in maintaining that it is equally true that no part of us becomes brown in virtue of our seeing something brown.[8] Thus it was necessary for Aquinas to distinguish two ways forms are received by a subject. He distinguishes natural or material reception of forms from spiritual or immaterial reception of forms. When a form is received naturally or materially by a subject, the form is predicated of that subject. When a form is received spiritually or immaterially, the subject has cognition of the form, but the form is not predicated of it.[9] So one and the same form, say the form of a horse, can have two kinds of being: it exists naturally or materially in a horse, but it exists spiritually or immaterially in our mind when we have knowledge of a horse. Or, to take my other example, the accidental form brown exists naturally in a brown thing (say a horse) but spiritually or immaterially in our eyes when we see a brown horse. The form as it exists spiritually or immaterially is often referred to by scholastics as a species.

2.2. *The Cartesian Theory*

By the time of Descartes and Arnauld, the terms used by scholastics to demarcate this distinction between two kinds of being were 'formal being,' which referred to the being that things have in the world, and 'objective being,' which referred to the being that things have in thought.

Although Descartes rejects two key elements of the Thomistic theory of cognition, I believe that his theory is fundamentally Thomistic. Descartes rejects the Thomistic view that we have cognition of forms, and he rejects the view that a species—a spiritual form—is somehow transmitted from the object and received in the soul. But his theory of cognition is fundamentally Thomistic because he accepts the most basic element of the Thomistic theory, namely, he agrees that we have cognition of things in the world when they come to have another kind of existence—objective existence—in the soul. So in explaining what he means by the term "objective being" in the *Replies to the First Objections*, Descartes asserts that "the idea of the sun is the sun itself existing in the intellect—not of course formally, as it does in the heavens, but objectively, that is, in the way in which objects are wont to be in the intellect" (AT VII 102; CSM II 75). This I take to be a clear endorsement of Thomistic theory. Although Descartes thinks that we have cognition of the sun itself

and not of the form of the sun (because on his view there is no such thing as the form of the sun), he thinks that the sun is capable of the same two kinds of being—formal and objective—that the scholastics thought forms were capable of, and it is in virtue of its capacity for objective being that we can have cognition of the sun.

2.3. The Quick Argument That Descartes and Aquinas Are Direct Realists

If the idea of the sun just is the sun, then there hardly seems room to say that the idea of the sun represents an object distinct from it. Similarly, on the Thomistic view, if we have cognition of forms, but those very forms exist in the soul, then it would seem false that we have knowledge of forms only indirectly by means of something else that represents them. And this might well seem to provide conclusive evidence that Aquinas and Descartes are direct realists.

2.4. An Argument That Descartes and Aquinas Are Representationalists

Descartes thinks that some of our ideas represent things external to the mind (AT XI 342; CSM I 335). So he seems committed to saying that the idea of the sun, that is, the sun as it exists objectively in the mind, represents the sun as it exists formally in the heavens.[10] In other words, the sun in one mode of existence represents itself in another mode of existence.[11] We might say that sun as it exists objectively is a mode of presentation of the sun as it exists formally. I am tempted to attribute to Descartes the view that the sun as it exists objectively is able to represent the sun as it exists formally in the heavens precisely because it is the same thing that has these two different modes of existence.

To say that it is the same sun that has these two modes of existence does not imply that the sun as it exists objectively in the mind is identical to the sun as it exists formally in the heavens, at least in our contemporary sense of identity, according to which whatever is truly predicated of one is truly predicable of the other. So while it is true that the sun as it exists objectively is an idea, it is false that the sun as it exists formally is an idea. There is no contradiction in asserting both that the same sun has two modes of existence and that the sun in one mode of existence is not identical to itself in the other mode of existence, any more than there is in asserting that we are the same human being we were at birth even though it cannot be truly predicated of us as adults that we are under thirty inches tall.[12]

Given the non-identity claim, it does not follow from the fact that we are directly aware of the sun as it exists objectively in the mind that we are directly aware of the sun as it exists formally in the heavens. By my way of thinking, this strongly suggests that Descartes is not a direct realist. To be a direct realist about physical objects, he would have to hold that we are directly aware of the sun insofar as it exists formally in the heavens. Such an understanding of direct realism is similar to that of A. O. Lovejoy, who maintains that direct realism requires that "objects

are given *in propria persona*."[13] I am not entirely sure what Lovejoy means by this phrase, but it would appear to be susceptible to two different interpretations, one weak and one strong. According to the weak interpretation, to be directly aware of objects external to the mind is to be directly aware of them insofar as they are external to the mind. According to the strong interpretation, the objects of direct awareness must be as they appear to us—not in the sense that we are aware of every aspect of them, but in the sense that those aspects of the objects of which we are immediately aware must be as they appear. I am not sure that Lovejoy intends to commit himself to the strong interpretation, and I certainly do not want to make such a commitment myself. Instead, I want to rely solely on the weak interpretation because it captures what seems to me to be a necessary condition for direct realism. Even if we reject the strong interpretation, so that we can be directly aware of external objects even if they appear to be other than they are, we cannot claim to be directly aware of external objects unless we are directly aware of them insofar as they are external to the mind.

Descartes's view seems to be that the sun as it exists objectively in the mind plays the role of being a representative intermediary between us and the sun as it exists formally in the heavens. Thus we are not directly aware of the sun insofar as it exists formally in the heavens. By the same token, Aquinas's assertion that the intelligible species is not what the intellect understands but that by which the intellect understands, which is often thought to provide evidence in favor of his being a direct realist, can equally well be taken to point in the other direction.[14] If the form existing spiritually in the intellect is not what is understood, then it must be playing the role of being an intermediary between the intellect and what is understood. Aquinas says that a thing seems according to the way the cognitive faculty is affected and that the form existing spiritually in the intellect enables us to understand because it is a likeness of what is understood.[15] This sounds like representationalism to me. Aquinas would appear to believe that the form as it exists in the object is not presented to us *in propria persona*.

3. Nadler's Argument That Descartes and Arnauld Are Direct Realists

Is this understanding of direct realism inadequate in some way? Why would other commentators maintain that Aquinas and Descartes are direct realists? Nadler sets out what I take to be the leading contemporary argument for the view that Descartes and Arnauld are direct realists. He claims that it is true on both direct realism and representationalism that our perception of external bodies is mediated by ideas.[16] The difference between the theories lies in how that mediation is understood. According to representationalism, our perception of external bodies takes place by means of our awareness or apprehension of ideas. According to direct realism, ideas do not mediate our perception of bodies in virtue of our being aware of or apprehending

those ideas. Rather, ideas are merely the acts of awareness themselves. According to the direct realist, talk of ideas is meant to flag only the trivial and obvious fact that we cannot perceive a body without an act of perception. The contrast between representationalism and direct realism therefore amounts to this: the representationalist holds that ideas enable us to perceive bodies by being themselves immediate objects of perception; the direct realist maintains that ideas mediate our perception of external bodies only in virtue of being acts of perception and not in virtue of being objects of perception.[17] While I take this to be Nadler's fundamental account of the distinction between direct realism and representationalism, at various points he mentions or suggests five other ways of characterizing the distinction. Three of them I take to be elaborations of this fundamental account. I will focus my attention on those. But first I would like to set aside the other two seemingly independent accounts.

First, Nadler claims that direct realism maintains that external bodies are perceived non-inferentially, whereas according to representationalism the perception of external bodies involves an inference based on the direct perception of ideas.[18] I did not notice any place where Nadler makes use of this way of drawing the distinction, which is just as well, because Frank Jackson argues against it convincingly in his book *Perception*.

In criticizing D. M. Armstrong's analysis of Berkeley's coach example, Jackson argues that the claim that the indirect perception of external objects involves an inference is based on a confusion between perception and belief about perception. Armstrong suggests that we can hear the sound of the coach without hearing the coach, on the grounds that someone who heard a noise that was made by a coach would not be able to say that he knew he heard a coach if he didn't already know that coaches made such a sound. But Jackson rightly points out that if we hear a noise made by a coach, by that very fact we hear the coach, whether or not we believe we hear the coach. We don't need any beliefs added on to hearing the sound to get hearing the coach.[19]

Similarly, a representationalist can argue that by the very fact of our being directly aware of ideas of external objects, we perceive external objects (indirectly), whether or not we form the belief that we are perceiving those external objects. It may require an inference for us to form the belief that we are perceiving an external object. It is equally true that on direct realist theories, perceiving need not be identified with believing. Even if we are directly aware of q, it still may require an inference for us to form the belief that we are perceiving q.[20]

The other account of the distinction I would like to set aside is that representationalists maintain that the immediate object of perception truly has the properties it appears to have, whereas direct realists allow that the immediate object of perception can appear other than it is.[21] I do not dispute that among contemporary defenders of representationalism such as Jackson, its primary justification rests on the claim that there must be some thing, some entity that has the properties that

bodies appear to have but do not have.[22] Furthermore, I grant that if a philosopher does maintain that we are aware of entities that have the properties bodies appear to have but do not have, that constitutes strong evidence that he is a representationalist. But I have already asserted that a representationalist need not be committed to the claim that the immediate objects of perception are as they appear. If a representationalist is motivated only by concern about the impossibility of direct awareness at a distance, then he could still maintain that even though we are directly aware of ideas, these ideas need not be as they appear.

Nadler's third characterization of the distinction is supposed to be a restatement of the fundamental account. He says that according to direct realism, perception is a dyadic relation involving the perceiver and the object perceived; whereas according to representationalism, perception is a triadic relation involving a perceiver, an intermediate object immediately perceived, and an external body indirectly perceived.[23]

Fourth, Nadler maintains that according to representationalism there is an indirect relation between the act of perception and the external object of perception. This indirect relation involves two direct relations. One direct relation obtains between the act of awareness and the idea.[24] The second direct relation is the relation of representation that obtains between the idea and the external object. According to direct realism, in contrast, the relation between the act of awareness and the external object of perception is direct.[25]

These third and fourth characterizations do not fit easily together. According to the third characterization, the immediate relation that typifies direct realism obtains between the perceiver and the external object; whereas according to the fourth characterization, it obtains between the act of awareness and the external object. If these two accounts are to be consistent, then it would seem to be the case that the connection between the perceiver and the act of perception is not a relation. However, Nadler quotes Arnauld as asserting that the connection between the perceiver and the act of perception is a relation:

> I have said that I take the perception and the idea to be the same thing. Nevertheless, it must be remarked that this thing, although single, stands in two relations: one to the soul which it modifies, the other to the thing perceived, in so far as it exists objectively in the soul. The word *perception* more directly indicates the first relation, the word *idea*, the latter.[26]

Thus it would appear that according to Nadler's third characterization, Arnauld is in fact a representationalist because in this passage he is committing himself to the view that the relation between the perceiver and the external object is not immediate but instead is indirect, being mediated by two relations: first, the relation between the soul and the idea (the act of perception), and second, the relation between the idea (the act of perception) and the thing perceived.

I imagine that Nadler would reply to this objection that even though on Arnauld's theory the act of perception is an entity, it is merely a modification of the soul, and

the fact that it is related to the soul as a modification is not sufficient to show that Arnauld thinks the soul is only indirectly related to the perceived object.[27] In other words, the mere fact that an act of awareness is related to the soul as a modification does not make it a third thing, a *tertium quid* standing between the perceiver and the external object.

It is important to note in this connection, as Nadler emphasizes, that the direct realist need not deny that ideas are immediate objects of awareness. Indeed, the direct realist can go so far as to maintain that each idea—each act of awareness—involves an awareness of itself. The direct realist is committed only to denying that this immediate awareness that we have of ideas plays a role in our perception of external bodies.[28]

A more difficult question is whether Nadler thinks that a representationalist must deny that ideas are acts of awareness. Some representationalists do hold that ideas are distinct from our acts of awareness and so have analyzed perception as involving a subject of awareness, an act of awareness, an idea, and the object represented by that idea. In other words, some representationalists hold that ideas are a third thing, a *tertium quid*, standing between the act of awareness and the external object. Evidence that Nadler thinks that this is true of all representationalists is provided by the fact that he seems to conclude at one point that Descartes is a direct realist simply on the grounds that Descartes thinks of ideas as acts of perception.[29]

But there are other grounds for concluding that Nadler does not think all representationalists must hold that ideas are distinct from acts of awareness.[30] In defending his claim that Arnauld is a direct realist, Nadler seems to allow that a theory that identifies ideas with acts of perception would still count as a representationalist theory if it maintained that our perception of those acts of perception is the means by which we perceive external objects.[31] So I think that Nadler's considered view is that a representationalist need not deny that ideas are acts of perception. A representationalist is committed only to saying that if ideas are considered as acts of perception, then they enable us to perceive bodies only insofar as they themselves are objects of perception. However, to assert that our perception of bodies is mediated by our awareness of our acts of perception might seem so implausible that one might conclude that the identification of ideas with acts of perception shows that representationalism is false and thus that it would be uncharitable to interpret a philosopher who makes such an identification as a representationalist.

To this point, Nadler's account of the distinction between representationalism and direct realism does not differ significantly from that of other defenders of the direct realist interpretation of Descartes and Arnauld, such as John Yolton. Nadler's argument for the direct realist interpretation has relied primarily on the assertion that they think ideas are acts of perception. But his account diverges significantly from Yolton's when it comes to the question of the nature of objective being. Yolton offers what I would call a strongly deflationary interpretation of Descartes's and Arnauld's use of the notion of objective being. According to Yolton, Descartes's and

Arnauld's use of that notion is different from that of Aquinas and has no metaphysical punch whatsoever. To speak of objective being is just to refer to the object as understood; it is not to suppose that the object exists in the intellect in a special kind of way.[32] Nadler, in contrast, maintains that when Descartes and Arnauld make use of the notion of 'objective being' they are referring to an intrinsic feature of an idea—that is, to the act of awareness—that "gives it directedness to an object."[33] These are very different interpretations. On Yolton's interpretation, Descartes and Arnauld are referring to the idea's object when they talk in terms of objective being, but on Nadler's interpretation, they are referring to a feature of the idea that directs it to the object.

In order to see what is motivating Nadler's interpretation of Descartes's and Arnauld's use of the notion of objective being and to motivate his fifth characterization of the distinction between direct realism and representationalism, it is helpful first to consider a crucial question about perception that leads up to it. One wants to know how a particular act of awareness gets an external object. How is it that this act of visual perception is directed to my computer screen and not, say, to my retina or to the intervening rays of light?

According to Nadler, this is where the theory of intentionality comes into play. To say that acts of awareness are intentional is to say that they are of something, they are object-directed, even if that object does not exist outside consciousness.[34] To explain how acts of awareness are of something is to provide a theory of intentionality. Borrowing from David Woodruff Smith and Ronald McIntyre's impressive study of Husserl, Nadler distinguishes two general theories of intentionality:[35] the object approach and the content approach.[36]

The underlying idea of the object approach to intentionality is that no mental act can be object-directed without there being an object immediately present to the mind. Smith and McIntyre point out that since not all mental acts are directed at objects that exist in the external world, this approach to intentionality requires that at least some of these objects that are immediately present to the mind be objects with a special ontological status. They claim further that defenders of object theories of intentionality typically maintain—apparently by some process of generalization, although this inference is left unexplained by Smith and McIntyre—that all immediate objects of awareness have an unusual ontological status.[37] Object theories that include this generalization would thus be versions of representationalism.

It is misleading, however, to describe the move from the object theory of intentionality to representationalism as motivated primarily by reflection on cases such as hallucinations in which the immediate object of awareness is an object with an unusual ontological status (because there is no appropriate ordinary object in the external world). Rather, the object theory can count as a theory of intentionality with explanatory power in ordinary cases only if we assume from the outset that there is an immediate object of awareness different from the real object perceived.

That is, in order to count as a theory of intentionality, the object theory presupposes representationalism.[38]

The rival theory of intentionality, the content approach, is supposed to be congenial to direct realism. According to this approach, as described by Nadler, each mental act has a certain structure or content that is an intrinsic, nonrelational property of that act and that accounts for its object-directedness.[39] Therefore, on this theory, the object toward which a mental act is directed must be distinguished from the content of that act. Moreover, there can be acts that are object-directed even if there is no object present to the mind.

This distinction between the object approach and the content approach to intentionality provides the basis for what I take to be an implicit fifth characterization of the distinction between direct realism and representationalism. According to the representationalist, intentionality is based on a non-intrinsic, relational property of the act of awareness, namely, the relation that it bears to the immediate object. According to the direct realist, intentionality is based on an intrinsic, nonrelational property of the act of awareness.

Nadler makes use of this fifth characterization to support his main argument that Descartes is a direct realist. He claims Descartes thinks that the objective being of ideas accounts for their intentionality.[40] Combining this with his additional claim that Descartes thinks of ideas as acts of perception and with the further claim that objective being "is something inhering in or intrinsic to the idea-act itself," he concludes that Descartes holds a content theory of intentionality and that he is therefore a direct realist.[41]

The objection to this fifth characterization is that it is not sufficient for direct realism that intentionality is taken to be an intrinsic property of acts of awareness. A theory of perception that held that we perceive external objects by perceiving the content intrinsic to acts of perception would still be representationalist, because that intrinsic content would be serving as an intermediate object.[42] Therefore, Nadler is not entitled to conclude as he does that Descartes does not hold an object theory of intentionality simply by arguing that Descartes thinks that the objective being of an idea is intrinsic to it.[43]

Thus, the fifth characterization cannot be used as a basis to establish that Descartes and Arnauld are direct realists. It seems to me that the underlying problem with Nadler's argument arises from a confusion between two subtly different questions. The first question is whether a mental act's directedness toward an object arises from our perceiving or apprehending the content of the act. Nadler focuses on this first question and seems to believe that a negative answer yields direct realism. The second question is whether the objective being of an idea directs our attention to its object in virtue of our being aware of that objective being. Nadler would grant, I believe, that a positive answer to this question yields representationalism. But the crucial point to see is that a negative answer to the first question can be consistent with a positive answer to the second question. I agree with Nadler against

Yolton that Descartes thinks the objective being of an idea directs our attention to its object; moreover, I agree with him that in order to do so, the directedness of an idea's objective being must be logically prior to our awareness of it. But it does not follow from this that our attention, that is, our thought, is directed to that object independently of our being aware of the objective being of the idea.

One might respond to this objection by claiming that since an idea just is an act of awareness that is intrinsically directed to an object, it is not necessary to posit awareness of the intrinsic directing feature to explain our awareness of the object. However, this response does not settle the historical question of what Descartes and Arnauld thought. Surely a philosopher might believe that our awareness of an object must be mediated by our awareness of the directing feature intrinsic to the act of awareness. As far as I can see, Nadler has not provided textual evidence that Descartes and Arnauld maintain that this awareness is not necessary. And while this ultimately might be a matter of the feel of various passages that could be rendered consistent with either reading, it seems to me overwhelmingly the case that Descartes and Arnauld both believe that our awareness of objects is mediated by our awareness of the objective being of our ideas. And that makes them representationalists.[44]

In the case of Arnauld, we can make an even stronger case that he is a representationalist. Arnauld asserts that in the case of vision, the intelligible sun, that is, the sun as it exists objectively in the mind, is a flat and circular body, about two feet in diameter.[45] No one who thinks that objective being accounts for the intentionality of our ideas would make such a claim if he did not believe that our awareness of the sun in sensation is mediated by our awareness of the objective being of our ideas. On the contrary, the most plausible motive for making such an assertion is the belief that in order to account for the possibility of sense illusion we need to posit immediate objects of awareness that have the properties bodies appear to have.

In closing, I would like to make three further points about the content theory of intentionality. First, it is a misnomer. On the content theory, we are supposed to think of the idea's content as something like a metaphysical fiber optic telescope that directs our attention to a particular external object but not by means of our being aware of it. It would be more appropriate to call such a view the pointer theory of intentionality. And if a pointer points us in a direction without our being aware of the feature in virtue of which it points us in that direction (and perhaps even without our being aware of the pointer itself), it seems misleading to refer to that feature as the pointer's content. It is misleading because referring to a feature of an idea as its content already suggests that the feature functions in virtue of being an object of awareness, whereas the whole point of the content theory is that the directing feature of an idea works independently of its being an object of awareness.

Second, once it is clear that the content functions only as the feature of an idea that points it toward its object, then there is absolutely no reason to think of the

content as resembling or being similar to its object. Pointers standardly do not resemble what they point to. So the fact that a philosopher thinks it is important that the element of our thought that directs our thought to an object resemble the object provides a prima facie reason to believe that he does not hold a content theory of intentionality. Thus I would conclude that there is prima facie reason to believe that Aquinas does not hold a content theory of intentionality. Similarly, it is crucial to Descartes's theory of intentionality that at least sometimes there is a resemblance between what exists objectively in our ideas and the object in the world causing that idea. On the other hand, if a philosopher thinks that it is important that the element of our thought which directs our thought to its object be in some way dissimilar to its object in order to account for the possibility of sensory illusion, that also provides a strong reason for concluding that he does not hold a content theory of intentionality.

The third point has to do with the relationship between intentionality and appearances on the content theory. If a direct realist wants to maintain that our perceiving an external object as having a particular property counts as directly perceiving the external object, then it cannot be the case that the object appears to have that property because some feature of our act of perception is projected onto or ascribed to the external object by us. Perceiving is one thing; projecting properties onto things is another. It is some further activity on our part. Therefore, I think it is inconsistent to try to maintain, as Nadler does, both that Arnauld thinks that sensible qualities such as color are sensations, that is, modifications of the mind, that are projected onto perceived bodies and that "sensations are incorporated into the *immediate* perception of external objects."[46]

Let me summarize briefly. In trying to understand the distinction between direct realism and representationalism, I have argued that a representationalist can grant to Nadler that ideas are acts of awareness, that an intrinsic feature of an idea directs our attention to its object, and that the directedness of this feature is prior to our awareness of it. This is possible because a representationalist can distinguish between the directedness of that intrinsic feature of the idea and the directedness of our awareness. It is sufficient for being a representationalist that one maintain that the directedness of our awareness arises from our awareness of the intrinsic directing feature of the idea.

I have also argued that a representationalist need not assert that the immediate objects of perception are as they appear, and I have made two claims about direct realism: first, a direct realist cannot hold an object theory of intentionality, and second, a direct realist needs to be careful not to confuse projecting properties onto external objects with immediately perceiving them.[47]

PART IV

Moral Psychology

This page intentionally left blank

12

Three Dualist Theories of the Passions

Descartes, Spinoza, and Malebranche each devote a significant amount of attention to the passions of the soul—those passive emotions of joy, sadness, love, hate, hope, despair, boldness, fear, desire, anger, and such. Commentators, especially English-speaking commentators on Descartes and Malebranche, often do not. I think their discussions of the passions deserve more attention. Commentaries on ancient Greek theories of the soul, whether Platonic, Aristotelian, or Stoic, would surely be considered deficient if they ignored the passions or, more generally, moral psychology. It seems to me that understanding dualist theories of the soul—the dualism of minds or thought versus bodies or extension—which is fundamental to Descartes, Spinoza, and Malebranche, also requires understanding their accounts of the passions.[1]

These three modern philosophers are interested in traditional questions about the passions: their definition, their causes, the classification of the various passions, changes in the body associated with them, their relation to active emotions, their relation to good and evil, their relation to virtue and happiness, their influence on our behavior, their effect on our freedom, and finally, methods of controlling them. Given that theories of the passions have such wide scope, it would be impossible to provide a comprehensive discussion of their theories here. Instead, I make a preliminary inquiry into those issues that I consider to be the most fundamental. These include the definition of the passions, their causes, their relation to good and evil, their effect on our freedom, and methods of controlling them.

One of my two principal aims is expository: I hope to make it easier for philosophers to find out what their theories are. My other principal aim is explanatory: I attempt to explain how their theories are grounded in their metaphysical views. As we will see, their acceptance of Cartesian dualism leads them to depart from the prevailing Aristotelian view about the nature of the passions of the soul by taking them to be modes of thought. We will also see that fundamental to their theories of the passions of the soul is their understanding of the more general concept of

a passion. In the general sense, a passion is something a thing undergoes; it is an effect produced in a substance. So all of them take it to be true by definition of the passions of the soul that they are things we undergo, not things we do. To understand their theories of the passions of the soul, it is thus necessary to understand their views on more general metaphysical issues about the nature of causation and the causal powers of minds and bodies, the relationship of passions to actions, and the relation of the two principal faculties of mind, those of understanding and will, to its passions and its actions. Descartes, Spinoza, and Malebranche differ sharply on these more general metaphysical issues in ways that lead them to hold divergent views about the nature of the passions of the soul, their causes, their effect on our freedom, and methods of controlling them.

In claiming that in order to understand the dualists' theories of the soul it is necessary to understand their accounts of the passions, I do not mean to imply that Cartesian dualism develops out of the project of trying to provide a metaphysical ground for moral psychology. On the contrary, Descartes's theory of the passions grows out of his metaphysics. This is best illustrated by the question of whether the soul has parts. Plato's and Aristotle's division of the soul into rational and irrational parts and the Stoics' rejection of such a division derive primarily from considerations of moral psychology. In contrast, Descartes's claim that the soul has no parts figures in one of his two arguments for dualism in the *Meditations*, well before his correspondence with Princess Elizabeth prompts him to write his treatise on the passions (AT VII 85–6; CSM II 59). It thus derives its significance from its place in his fundamental project of providing a metaphysics to ground the new mechanical physics and is not made originally with an eye to moral psychology.

So we would still be talking about Cartesian dualism even had he not lived to write about the passions. But it is a mistake to proceed, as is so often done, by talking about Descartes's theory of the soul as if he had not written a treatise on the passions. Not only does his discussion of the passions serve to fill out his theory of the soul but, as we will see, it does so in ways that conflict with standard interpretations of his dualism.

This question of how much the underlying metaphysics is driven by the project of providing an adequate moral psychology is much more difficult with regard to Spinoza and Malebranche. For example, Spinoza's argument that the soul is not simple follows from his conception of the soul as the idea of the body.[2] But what is the source of such a curious conception of the soul? Is it really just derived from the observation that we have ideas of the body or does it instead derive from the aim of grounding his claim that we strive to think of things that increase the body's power of acting?[3]

I mention this question about the sources of the metaphysical views that serve as a foundation for their theories of the passions not because I try to answer it here. Instead, it helps set a limit to the scope of this inquiry. I do not attempt to defend an account of the sources of their metaphysical views, nor do I present their arguments

for those views. Rather, I try to provide an account of how their metaphysical views serve as a foundation for their theories of the passions.

1. The Definition of the Passions

In the opening article of *The Passions of the Soul*, Descartes points out that in its most general sense the term 'passion' is used to refer to whatever takes place or occurs. Thus anything we would call an event or process, whether mental or physical, would be considered a passion. But it is a passion only with regard to the subject to which it happens; it is an action with regard to the subject that makes it happen (AT XI 328; CSM I 328, a1).[4] In its narrow and proper sense, the term refers to what Descartes calls passions of the soul. He defines the passions of the soul as those perceptions, sensations, or emotions that are caused, maintained, and strengthened by some movement of the animal spirits and that we refer to the soul itself, as opposed to external bodies or to our own body (AT XI 349; CSM I 338–9, a27).

When Descartes says that passions are perceptions, sensations, or emotions, he does not mean that some passions of the soul are perceptions, others are sensations, and still others are emotions. Instead he means that each passion is at once a perception, a sensation, and an emotion (AT XI 349–50; CSM I 339, a28). Thus there are five elements in his definition of the passions: they are perceptions, they are sensations, they are emotions, they are caused by some movement of the animal spirits' and they are referred to the soul. The first task in examining Descartes's theory of the passions is to provide an account of the meaning and significance of each of these elements.

The significance of his defining the passions as emotions is easily overlooked.[5] Passions are emotions both in Descartes's narrow sense of the term, according to which emotions are those thoughts that agitate and shake the soul, and in his broad sense of the term, according to which he says that all our thoughts—and he explicitly includes our volitions (AT XI 350; CSM I 339, a29)—are emotions. He says, using his broad sense, that the name 'emotions of the soul' can be attributed to all the changes that take place within it (AT XI 350; CSM I 339, a28). In holding that the passions of the soul are changes taking place within the soul, Descartes is rejecting the prevailing Aristotelian view reflected most prominently in the writings of Aquinas.

Aquinas had distinguished between a common and a proper sense of the term 'passion.' In the common sense of the term, a passion is the reception of anything in any way. In the proper sense, the patient not only receives something but casts aside the contrary of what it receives, as, for example, when something changes from red to green. Sensing and understanding are passions only in the common sense and not in the proper sense because they involve only the reception of a form, not the casting aside of a form. The passions of the soul, however, are passions in the proper sense. They are thus corporeal changes; in particular, they are alterations, because only in alteration is one contrary form received and another cast

aside. Since passions are corporeal changes, they belong essentially to the body. The incorporeal soul, in contrast, does not receive things by a change from contrary to contrary but through a simple influx.[6]

Aquinas thought nevertheless that there are two ways a passion in the body can be attributed accidentally to the soul arising from the two ways the soul is united to the body: as its form, insofar as it gives being to the body, and as its motor, insofar as it exercises its operations through the body. These two ways of attributing passions accidentally to the soul result in a distinction between two sorts of passions of the soul.[7] First, what he calls corporeal passions begin in the body and terminate in the soul, for example, when an injury to the body weakens the first sort of union of the body with the soul. Corporeal pain is such a corporeal passion.[8] It begins with an injury to the body and ends with an apprehension by the sense of touch.[9] Second, what he calls animal passions begin in the soul with the apprehension of something good or harmful and end in the operation of the appetite and further in a change in the body, in particular, in the heart.[10] Love, hate, hope, despair, fear, courage, desire, aversion, and anger are examples of such animal passions.

Descartes's views are thus diametrically opposed to those of Aquinas. Aquinas takes fear, for example, to be a corporeal change in the body that begins with an act in the soul. Descartes takes fear to be a change in the soul, that, to mention a second element of his definition of the passions, is caused by some movement of the animal spirits. What underlies this dispute over whether the passions of the soul are changes in the body or in the soul is a fundamental difference in their accounts of the nature of the change that they involve.

Descartes, in contrast to Aquinas, does not recognize a distinction between changes that involve the mere reception of something and those that also involve the casting aside of something. Thus, unlike Aquinas, he is willing to assimilate the change involved in the passions of the soul to the sort of change involved in sensing. So, to mention a third element of his definition, he says that passions can be called sensations because they are received into the soul in the same manner as the objects of the external senses (AT XI 350; CSM I 339, a28).

When Descartes speaks of objects being received into the soul, I take him to be speaking loosely. He often talks as if the soul receives ideas from external objects and as if one body transmits motion to another. But when he is being more careful, he denies that anything is transferred from one substance to another.[11] Change takes place when a substance is modified, but to be modified is not to receive anything. He might then have two things in mind in saying that passions are received into the soul in the same way as objects of the external senses. First, talk of being received in the soul might be a loose way of speaking about their existing in the soul, in which case his point is that passions exist in the soul in the same way external objects exist in the soul. External objects exist in the soul objectively, that is, as ideas (AT VII 102–3; CSM II 74–5). So passions exist in the soul in the same way ideas exist in the soul. Second, talk of being received in the soul might be a loose way of speaking

about their being caused to be in the soul, in which case his point is that passions are caused to be in the soul in the same way the objects of the external senses are caused to be in the soul.

Still another difference between Aquinas and Descartes is that Aquinas thinks some passions of the soul are more properly passions than others. Aquinas thinks that in its most proper sense, a passion involves a change for the worse, that is, the form that the patient receives is less suitable to it than the form it casts aside, for example, when something healthy becomes ill. This is because he thinks that it is also part of the meaning of the term 'passion' that the patient is drawn (or dragged) toward the agent and that a patient is most properly said to be drawn toward an agent when it recedes from something suitable to it. Thus Aquinas says that sadness is more properly a passion than joy because it is a change for the worse, whereas Descartes would say that joy and sadness are equally passions.[12]

The second element of Descartes's definition mentioned earlier, that the passions are caused by some movement of the animal spirits, is significant for other reasons as well. First, it implies that the passions of the soul are not coextensive with the emotions even in Descartes's narrow sense. Although all the passions of the soul are emotions, not all emotions are passions of the soul. Descartes recognizes purely intellectual or internal emotions, such as intellectual joy, which arise through the action of the soul alone and not through the movement of the animal spirits (AT XI 396–7; CSM I 360–1, a91: AT XI 440–1; CSM I 381, a147: AT IV 601–4; CSMK 306–7). Another even more important implication of this element of his definition concerns our understanding of Cartesian dualism: Descartes cannot hold certain strong views often ascribed to him about the independence of the mental and physical if he is willing to define an important class of mental phenomena, the passions of the soul, in terms of their being caused by something bodily. Since his very definition of the passions includes reference to bodily movements, those modifications of the soul are not conceptually independent of body. Thus it is simply false that Descartes thinks that the conceptual independence of the attributes thought and extension entails that all the modes of thought are conceptually independent of all the modes of extension.[13]

The fourth element is that the passions of the soul are defined as perceptions. Descartes recognizes only two principal kinds of thoughts: operations of the will and operations of the intellect (AT VIIIA 17; CSM I 204). He argues that operations of the will—that is, volitions, of which there are two sorts, those that terminate in our body and those that terminate in the soul itself—are actions, because we find by experience that they come directly from the soul and seem to depend on it alone. All the things that the soul undergoes, its passions in the general sense, must consequently be considered as operations of the intellect or perceptions, and vice versa, all its perceptions are passions in the general sense (AT XI 342–3; CSM I 335, a17–8). Thus the passions of the soul, like anything else the soul undergoes, are operations of the intellect.

In saying that the passions of the soul are perceptions, Descartes denies that they are perceptions in the sense of being plain knowledge. Instead, he is explicitly using the term 'perception' as a grab bag term to include all the soul's thoughts that are not actions, that is, that are not volitions. But he also goes on to say that the passions of the soul are confused and obscure perceptions, which suggests that in denying that the passions of the soul are plain knowledge he is denying only that they are clear and distinct ideas, and not that they are ideas (AT XI 349–50; CSM I 339, a28).

One might well be troubled by the implications of saying that the passions of the soul are ideas. Descartes defines ideas as thoughts that are as if images of things (AT VII 37; CSM II 25), that is, they are as if of things or they represent or exhibit things (AT VII 44; CSM II 30). But if representing something is essential to the Cartesian conception of what it is to be an idea, it might well seem false that the passions of the soul are ideas. While it is true that passions of the soul typically have objects in the sense of being directed toward something, and the ideas of those objects are as if images of them, the passion itself does not seem to be an image of anything, that is, to represent or to be as if of something. So if I feel joy or sadness on hearing some news, that joy or sadness is directed toward an object, but neither the joy nor the sadness itself seems to be an image of something in the way that my perceptions of red or cold or shape are like images of things.

Since we are not inclined to classify as ideas those thoughts that have objects only in the sense of being directed toward something, Descartes's suggestion that the passions of the soul are ideas will remain troubling unless he also thinks that they are in some way representational. But how could a passion like love or joy be representational? An answer is suggested by his assertion that the passions "almost always make the goods and the evils they represent appear much greater and more important than they are, so that they incite us to seek the former and pursue the latter with more ardor and more effort than is suitable" (AT XI 431; CSM I 377, a138). In making such an assertion, he seems to be implying that passions represent things as good or as evil. This could be construed in a weak sense to mean that love, for example, includes the idea of the object as good, or in a stronger sense to mean that love just is a confused idea of the goodness of an object analogous to the way heat is a confused idea of some mode of a body.

In understanding passions to be perceptions, Descartes makes another significant break with Aquinas. Aquinas also distinguished between two fundamental powers of the soul. Operations of the intellect were included among the operations of what he called the apprehensive part; operations of the will were included among the operations of what he called the appetitive part. But instead of attributing passions to our apprehensive part, Aquinas argued that they were more properly attributed to our appetitive part, first, as we have already seen, because apprehension involves only receiving something but the passions involve casting aside something as well, and second, because the term 'passion' implies that the patient is drawn to

something in the agent, and the soul is drawn to something through the appetitive power.[14]

Descartes's account of the purely intellectual emotions, in contrast, is much closer to Aquinas's. His characterization of them in *The Passions of Soul* as arising from the action of the soul alone suggests that he thinks that if they are passions, they are passions only in the most general sense, differing from the passions of the soul in virtue of arising from the action of the soul instead of from the action of body (AT XI 397; CSM I 360–1, a91). But in his letter to Chanut of February 1, 1647, he explicitly refers to them as movements of the will (AT IV 601–2; CMSK 306). Thus, I think the most plausible interpretation is that he takes the purely intellectual emotions to be actions.[15]

The final element of his definition of the passions is that we refer them to the soul. Its significance derives from its being one of Descartes's two principal grounds for distinguishing passions from those sensations we refer to external objects and those we refer to our body (AT XI 350; CSM I 333, a29). We refer some sensations, such as the sound of a bell, to external objects that we suppose are their causes in such a way that we think we perceive those external objects (AT XI 346; CSM I 337, a23). We refer sensations that we feel as in parts of our body, such as hunger, thirst, pain, and heat, to those parts (AT XI 346–7; CSM I 337, a24). We refer the passions of the soul to the soul because, Descartes says, we feel their effects as being in the soul itself and because we usually know of no proximate cause to which we can refer them (AT XI 347; CSM I 337, a25).

Descartes's explanation of why we refer some perceptions to external objects, some to our body, and some to our soul unfortunately does not make clear what he thinks it is to refer a perception to something, nor does it make clear when he thinks we are justified in referring a perception to something. I will not attempt to address myself directly to these questions here.[16] Instead I will address myself to them only indirectly by raising the problem of whether his explanation of why we refer the passions to the soul can be reconciled with other fundamental claims he makes about the passions.

Most important, he sets out both to refute and to explain the origins of the then common belief that the heart is the seat, that is, the subject, of the passions. He says that we mistakenly believe that the heart is the seat of the passions because we feel the passions as in the heart (AT XI 351–2; CSM I 340, a31). But if we felt the passions as if they were in the heart, it would seem that we would refer them to the heart, just as we refer other perceptions such as hunger, thirst, and pain to parts of the body because we feel them there. Perhaps Descartes thinks it is important to distinguish where we feel the passion itself from where we feel the effects of the passion (AT XI 347; CSM I 337, a25). But why wouldn't we refer a passion to where it is felt, that is, to the heart, rather than to where its effects are felt, that is, to the soul? Moreover, our knowledge of the proximate causes of the passions would seem to be no worse than our knowledge of the proximate causes of our other perceptions.

Descartes himself tells us that the last and most proximate cause of the passions of the soul is simply the agitation by which the animal spirits move the pineal gland (AT XI 371; CSM I 349, a51).

Two different hypotheses for defending Descartes on this point have occurred to me, but neither strikes me as very satisfactory. The first is that although he thinks we know the last and most proximate cause of the passions, we are ignorant of another cause that is still legitimately called proximate. In contrast to sensations, which we refer to our body, we refer the passions to the soul because we commonly do not know whether they are caused by some external object stimulating our nerves or by some other cause (AT XI 347; CSM I 337, a25). Although he claims to know that the cause of wonder is located in the brain alone, he says of the other primitive passions that their cause is not located "in the brain alone, but also in the heart, the spleen, the liver, and all the other parts of the body insofar as they contribute to the production of blood and then spirits" (AT XI 410; CSM I 362–3, a96).[17]

The problem with this hypothesis is that Descartes still seems to be committed to the view that we feel the passions as if they were in the heart precisely in those cases in which the heart is the proximate cause of the passions, at least when the body is functioning properly (AT XI 353–4, 357, 401–8; CSM I 340–1, 342, 362–5, a33, 37, 96–106). Therefore, it would seem not only that we would refer those passions that we felt as if in the heart to the heart but also that we could justifiably claim to know that the heart is their proximate cause in just the same way we can claim to know that the proximate cause of hunger is located in the stomach.

The second hypothesis is that Descartes thinks that we refer the passions of the soul to the soul because, in contrast to internal sensations, we do not think that they represent, however confusedly, some state of the body.[18] I find this to be the most promising solution from a philosophical point of view, but I have grave doubts that it is justified as a reading of Descartes. In particular, I am inclined to attribute my own belief that the passions, in contrast to internal sensations, do not represent states of my body to the fact that I feel hunger, for example, as if it were in my stomach and do not feel passions, for example, joy or sadness, as if they were in any parts of my body (which is not to deny that I am sometimes aware of bodily states associated with being in a certain emotional state). And I don't see why someone who, like Descartes and unlike me, claims to feel her passions as if they were in her heart would not think that those passions confusedly represent the state of her heart in just the same way hunger confusedly represents the state of her stomach.

Since neither of these hypotheses seems to provide a satisfactory explanation for Descartes's assertion that we refer the passions to the soul instead of the heart, my conclusion is that while he thinks he can distinguish the passions from other perceptions because they are referred to the soul, he has not succeeded in justifying that way of distinguishing them.

Descartes's other principal ground for distinguishing the passions from other sensations is based on his claim that their last and most proximate cause is some

movement of the animal spirits (AT XI 350, 357; CSM I 339, 342, a29, 37). Being caused by the spirits is contrasted with being caused by means of the nerves (AT XI 348; CSM I 338, a26). Once again, it might seem hard to reconcile Descartes's stated view with other claims he makes. In one of his fullest descriptions of the causes of the passions, he says that "they are caused principally by the spirits contained in the brain's cavities, insofar as they proceed toward the nerves that serve to enlarge or contract the heart's orifices or in various ways to drive the blood in other parts toward [the heart] or in any other way there may be to maintain the same passion" (AT XI 357; CSM I 342, a37). Thus his causal explanation of the passions does not sound different from that of our other sensations, such as visual sensations, which also result when the animal spirits flow from the pineal gland to nerve openings on the interior surface of the brain (AT XI 175–6; CSM I 105–6). In explaining why we feel passions as if they were in the heart, Descartes himself says that we feel them there "by the mediation of a little nerve descending to it from the brain, just as pain is felt as in the foot by the mediation of the nerves of the foot" (AT XI 353; CSM I 340–1, a33).

This time, however, he can be defended, because there is an important difference underlying these two causal stories. With sensation, what causes the animal spirits to flow into the nerves is a change in the nerves, but with the passions, what causes the spirits to flow into the nerves is not a change in the nerves but something about the flow of the spirits themselves (AT XI 356–7; CSM I 342, a36). So Descartes can in fact distinguish passions from other perceptions, if not by a difference in their last and most proximate cause, the spirits flowing into the nerves, at least by a difference in what causes the spirits to flow into the nerves.

It is also worth noting that in a letter to Elizabeth, Descartes gives a somewhat more precise account of the nature of the movements of the animal spirits that give rise to the passions. He distinguishes between the normal course of the spirits and their special agitation. Only thoughts caused by the special agitation of the spirits are properly called passions. Those "sad or cheerful thoughts or the like" caused by the normal behavior of the spirits should be attributed not to passion but instead "to the nature or humour of the person in whom they are aroused" (AT IV 310–11; CSMK 270–1).[19]

2. The Influence of the Passions on the Will and Their First Causes

Descartes says that the particular feature of the passions of the soul that justifies our calling them emotions is that no other thoughts agitate and disturb it so strongly (AT XI 350; CSM I 339, a28). This makes it sound as if he thinks that the subclass of perceptions most aptly called emotions is distinguished from the others by a mere matter of degree. There are, however, important indications that he thinks that the emotional, while cognitive in the sense that any idea is a cognition, is not

merely cognitive, and that this distinction between the emotional and the merely cognitive is not just a matter of degree. In the *Third Meditation*, he distinguishes between ideas and other thoughts that are not mere likenesses of things but contain something else as well. As examples of such other thoughts, Descartes cites judgments and volitions but also passions such as fear. I do not think Descartes means to imply in this passage that the passions include an element that is itself volitional, because if he did, he would be undermining his other distinction between the soul's actions and its passions (AT VII 37; CSM II 25–6).[20] But what could this additional feature be?

Let me propose that it is that feature by which the passions have an influence on the will.[21] Descartes distinguishes between two sorts of movements produced in the pineal gland by the spirits: the first kind, which represent to the soul objects that move the senses or impressions occurring in the brain, have no influence on the will; the second kind, which cause the passions or the bodily movements that accompany the passions, do have an influence on the will (AT XI 365; CSM I 346, a47). Even though Descartes draws this distinction in terms of the actions of the body that result in passions or perceptions, he could equally well have drawn it in terms of the perceptions themselves. Those perceptions that are merely representational do not "dispose the soul to will the things that nature tells us are useful," but those perceptions that include something more, the passions, do dispose us to will things useful to us (AT XI 372; CSM I 349, a52).[22]

What is this feature of the passions in virtue of which they influence the will? And what sort of influence do they have on the will? Descartes's assertion that the passions "almost always make the goods and the evils they represent appear much greater and more important than they are, so that they incite us to seek the former and pursue the latter with more ardor and more effort than is suitable" suggests an answer to these questions: they move the will to pursue or to shun objects in virtue of being representations of those objects as good or evil. According to Descartes, the will is the power to affirm or deny, pursue or shun (AT VII 57; CSM II 40). Our perception of something as true inclines the will to affirm it. Our perception of something as good inclines the will to pursue it.

As it stands, this suggestion oversimplifies Descartes's account in two important respects. First, instead of speaking of the passions as representing objects as good and evil, it is better to use the more fundamental concepts of being suitable or unsuitable to our nature. Descartes says that we commonly call something good or evil if either our internal senses or our reason makes us judge it suitable or unsuitable to our nature; we call it beautiful or ugly if our external senses represent it as suitable or unsuitable to our nature. Corresponding to this distinction are two kinds of love and hatred: love of the good and love of the beautiful; hatred of the bad and hatred of the ugly (AT XI 391–2; CSM I 358, a85). A better characterization of Descartes's position, then, is that the passions' power to influence the will resides in their representing things as suitable or unsuitable to our nature.

Second, Descartes thinks that we have other sorts of volitions besides those of affirming or denying, pursuing or shunning. One other sort of volition is that of directing our thought to something (AT XI 343; CSM I 335, a18). Descartes thinks we are influenced to direct our attention to things by what he considers to be the first of all the passions, wonder, which he defines as "a sudden surprise of the soul which makes it attend to those objects which seem to it rare and extraordinary" (AT XI 380; CSM I 353, a70). Apparently, then, wonder, which he thinks is independent of our representing objects as suitable or unsuitable, influences the will in virtue of representing objects as rare and extraordinary.

Still another sort of volition he mentions is that of "joining ourself in volition" to something, which he contrasts with being joined in reality to the thing. To join oneself in volition to something—which he identifies with purely intellectual or rational love—is to consider oneself and the thing as parts of a single whole. The passion of love incites the soul to join itself in volition to things, that is, sensual love incites the soul to intellectual love (AT XI 387–8; CSM I 356, a79–80: AT IV 601–4; CSMK 306–7).

There remain, however, several major problems with my proposal to interpret Descartes's account of the passions' influence on the will in virtue of their representing things as suitable or unsuitable to our nature or, in the case of wonder, as rare and extraordinary. First, in his account of the first causes of the passions, he says things that imply that the passions themselves are not representations of the good or evil of objects. He recognizes four distinct first causes of the movements of the animal spirits that are the last and most proximate cause of the passions: the action of the soul in deciding to think of some object, objects that move the senses, impressions haphazardly encountered in the brain, and the temperament of the body alone (AT XI 371–2; CSM I 349, a51). When the first cause is either a decision of the mind or an external object moving the senses, it produces a brain impression from which the movements of the animal spirits follow. So Descartes says, apparently describing an example of the first case, that whenever our understanding represents something to us as good or evil, our imagination produces the impression in the brain that produces the movement of the spirits that causes the appropriate passion (AT XI 397; CSM I 361, a91: AT IV 312–3; CSMK 271–2). Sometimes he describes these prior considerations of the good or evil of an object as involving not just perception but also a judgment that the object is good or evil, which is an act of will (AT XI 391; CSM I 358, a85: AT IV 312–3; CSMK 271).[23] In either case, whether the passion is the effect of a perception or a judgment that some object is good or evil, the implication seems to be that the passion itself is not a representation of good or evil.

Even more striking, Descartes seems to think we can have passions when there is no perception or judgment by the soul that some object is good or evil. He says that when the first cause of the passion is an impression haphazardly encountered in the brain or the temperament of the body alone, we feel sad or joyful without knowing why (AT XI 371–2; CSM I 349, a51). He also seems to think we can be ignorant of

the first cause of a passion even when it is an external object, if the object forms the brain impression without the mediation of the soul or if the soul does not consider the object as good or evil (AT XI 398; CSM I 361, a93). The implication of these sorts of cases is that we can have a passion without any representation in the soul of an object as good or evil, although, interestingly enough, Descartes describes the brain impression as an impression of good or evil (AT XI 398; CSM I 361, a93).

If the passions are not themselves representations of the good or evil of objects, then it does not seem that there are any remaining grounds on which they could legitimately be considered to be representational and hence cognitive or perceptual. Nor is there an obvious remaining candidate to explain why or how the passions move the will. He does say that the utility of the passions consists in their strengthening thoughts that it is good that the soul preserve, which might be taken to suggest that the passions influence the will by causing us to have certain thoughts (AT XI 383; CSM I 354, a74). But this is not a satisfactory solution to the problem of explaining how the passions influence the will, because it does not explain how the passions cause us to have certain thoughts and because it seems to imply that the passions are not themselves perceptions. Descartes even goes so far as to say that love consists in the soul being compelled by the animal spirits to dwell upon a thought. This is a troubling assertion, because it suggests that he thinks some passions are not themselves states of consciousness or awareness but instead consist in the persistence of a given state of consciousness or awareness (AT XI 404; CSM I 364, a102).

A second problem for my proposal arises from his asserting at one important juncture that the passions cannot lead us to perform any action except by means of the desire they produce (AT XI 436; CSM I 379, a144). By 'action' I take him to be referring here not to all volitions, but just to that class of volitions that result in bodily action. Nevertheless, in making such an assertion, he is denying that all the passions move us directly to pursue or to shun objects, which seems to undermine his attempt to distinguish the passions from the merely perceptual by their capacity to move the will, since surely he thinks that our sensations also move the will indirectly by generating desires.

Third, he sometimes speaks of desire as if it were itself a volition, even though desire is one of his six primitive passions (AT XI 406–7; CSM I 365, a106; AT VIIIA 17; CSM I 204). This threatens to undermine his distinction between volitions and passions right at the juncture where the passions allegedly move the will, since desire is supposed to be the intermediate step between the other passions and our volitions to pursue or shun objects.

His account of the appetites provides a concrete illustration of some of these problems. Although he frequently refers to hunger and thirst as appetites, he thinks that strictly speaking they are not appetites but only internal sensations. All appetites, he says, are volitions (AT XI 364; CSM I 346; a47), and hunger and thirst are completely different from the volition to eat or the volition to drink (AT VIIIA 317–8; CSM I 281). It is because hunger and thirst are frequently accompanied by

such volitions or appetitions that we call them appetites. But he also tells us that it is important to distinguish the sensations of hunger and thirst from the desire to eat and drink, which are passions typically caused by those sensations (AT IV 312; CSMK 271). Does he think these are different ways of drawing the same distinction, which would imply that he thinks the desire to eat or drink is the same as the volition to eat or drink and that the internal sensations of hunger and thirst move the will directly; or does he think it is equally important to distinguish the desire to eat or drink from the volition to eat or drink, which would suggest that he thinks the internal sensations of hunger and thirst move the will indirectly by first producing the desire to eat or drink?

3. The Use of the Passions and Their Control by the Will

One of Descartes's principal aims in his treatise on the passions is to provide an account of how we can have absolute control over them. But one might wonder why one would want to control them, given his account of their use. He says that their use consists solely in disposing the soul to will the things that nature tells us are useful and to persist in this volition (AT XI 372; CSM I 349, a52). He also says that "their natural use is to incite the soul to consent and contribute to actions which can serve to preserve the body or render it more perfect in some way" and that they are all good in their nature (AT XI 430, 485; CSM I 376, 403, a137, a211). Finally, he thinks that their most important use resides in making the soul more perfect (AT XI 432; CSM I 377, a139). Given these remarks, it might well seem prudent to let the passions control our will.

But Descartes distinguishes between particular passions and the excesses of those passions, and asserts that some excesses of particular passions are never praiseworthy or useful (AT XI 463; CSM I 392, a176).[24] For example, he defines astonishment as an excess of wonder and says it can never be other than bad because it causes the body to remain immobile and thus makes it impossible for us to attain a more detailed knowledge of the object (AT XI 382–3; CSM I 354, a73). Thus, even if it were prudent to let the passions control our will, it would not always be prudent to let the excesses of passions control our will.

He also believes that the passions themselves can lead us astray. First, sometimes what is harmful to the body initially produces not sadness but joy, and what is useful is initially disagreeable. Second, the passions lead us to pursue things or flee from things inappropriately because they represent them as more important than they are. So we have two reasons for controlling the passions' influence on the will: first, so as not to confuse good with evil, and second, so as not to tend toward anything immoderately (AT XI 431; CSM I 376–7, a138).

Descartes explicitly rejects the Platonic and Aristotelian view that the soul has a higher rational part that can be in conflict with a lower sensitive part. On the

contrary, the soul has no parts, and everything in us that opposes reason should be attributed to our body alone (AT XI 364–5; CSM I 345–6, a47). So any alleged conflicts between reason or will and the passions are really conflicts that arise from the effort of the animal spirits to push the pineal gland in one way and the effort of the soul to push it in another way. Descartes also objects to the traditional distinction within the sensitive part between the concupiscible and the irascible appetites. Since he recognizes no distinction of parts within the soul, he thinks that such a distinction between appetites can only be a distinction between faculties, those of desiring and of anger, and that instead of recognizing just two such primitive faculties we should recognize six: wonder, love, hate, desire, joy, and sadness (AT XI 379–80; CSM I 352–3, a68–9).

Descartes seems to concede the major premise of Plato's argument for parts of the soul—that the same object cannot do or undergo contrary things at the same time in the same part of itself in relation to the same object—because he argues that even though we seem sometimes both to desire and not desire the same thing at the same time, in fact we never do.[25] Instead, we vacillate in our desires over time depending on whether the spirits or the soul is controlling the movements of the pineal gland (AT XI 365–6; CSM I 346, a47). But there would seem to be a deeper worry that he does not explicitly take up. He is committed to the view that our desire for something might at the same time be opposed by our volition not to pursue that thing. Why doesn't that sort of opposition—the opposition between desire and will—generate parts of the soul? I think the best defense of Descartes against this objection is to point out that while Plato's major premise excludes the possibility of an object doing contrary things or undergoing contrary things, it does not exclude the possibility of an object doing something that is contrary to what it is undergoing at the same time. And since for Descartes, willing is doing, and desiring (at least when he thinks of it as a passion) is undergoing, he can admit Plato's major premise while still denying that the opposition between will and desire generates parts of the soul.

Descartes says that the will is not able to produce or suppress passions directly but only indirectly. What he means by this is not just that the will can produce passions only by acting on the pineal gland but that we cannot get our pineal gland to move in the right way to produce or suppress a given passion simply by willing that the passion be produced or suppressed. Just as we cannot get our pupils to enlarge by willing that they should enlarge but can get them to enlarge by willing that our eyes should adjust to look at a distant object, and just as we can more readily get our tongue and lips to move by thinking of the meaning of what we want to say than by thinking of the movements required for uttering the words, so we cannot produce boldness or suppress fear simply by having the volition to do so. Instead, we need to form representations of things that are usually joined with the passions we want to have or contrary to those we want to reject (AT XI 361–3; CSM I 344–5, a44–5).

We can easily overcome lesser passions in this way, just as we can prevent ourselves from hearing a slight noise or from feeling a slight pain by attending closely to something else. But this strategy will not work for overcoming stronger passions, any more than trying to pay attention to something else enables us not to hear thunder or not to feel fire burning our hand. Descartes thinks that the most that we can do while the disturbance of the animal spirits that produces the passion is at full strength is to restrain our bodies from moving in certain ways. We can, for example, prevent ourselves from hitting, though angry, and from fleeing, though afraid (AT XI 363–4; CSM I 345, a46). In one article, Descartes describes these motions that we can prevent as being incited by the passions themselves, but in the next article he describes them as being excited by the same thing that excites the passions (AT XI 363–6; CSM I 345–7, a46–7). In the former case, the struggle seemingly would be internal to the soul, because it would be a struggle over whether our passions or our judgments lead us to act in certain ways. In the latter case, the struggle would be between the will and the animal spirits over control of the pineal gland.

Some souls are better at controlling the passions and their accompanying bodily movements than others. The weakest souls continually let themselves be carried away by present passions. They are enslaved and miserable because the passions often oppose one another, with the result that the will, by following one passion and then the other, is opposed to itself. A strong soul is one that tries to combat the passions by resolving to act according to firm and determinate judgments concerning knowledge of good and evil (AT XI 366–7; CSM I 347, a48). Even if the judgments are false or founded on passions that have previously vanquished or seduced the will, Descartes will still count such a soul as strong, provided that the passions that led to the judgments are no longer present.[26] The importance of having true judgments is that one can be assured of never regretting or repenting, but a soul's strength seems to be independent of the truth of the judgments.[27] Its strength is determined entirely by the extent to which it does not follow present passions but instead follows judgments not based on present passions (AT XI 368; CSM I 347, a49).

Descartes's language suggests that a distinction between first-, second-, and perhaps even third-order volitions figures in his account of a soul's strength. A strong soul is one that resolves to follow certain sorts of judgments; in other words, it wills that certain acts of will determine its first-order acts of will. A weak soul is one that allows itself to be carried away by present passions; in other words, if talk of allowing oneself introduces an element of choice, it chooses that its present passions determine its first-order acts of will. This reading squares well with Descartes's assertion that the will is absolutely free (AT XI 359; CSM I 343, a41).

It is not clear to me, however, that in order to account for the absolute freedom of will in a weak soul whose present passions cause it to have certain volitions or to account for his talk of strong souls resolving to follow certain judgments, we are forced to interpret him as introducing orders of volitions. First, it seems entirely plausible to understand Descartes's talk of a weak soul allowing itself to be carried

away by its present passions as meaning simply that it loses the struggle with the passions, not that it chooses to let them win, and moreover, that this sort of lack of strength in the soul does not indicate lack of freedom of will.[28] Second, his account of strong souls can reasonably be understood to be just that one type of volition, a firm judgment about what is good or evil, brings about another type of volition, a volition to pursue or shun something.

The most striking element of Descartes's account of the soul's control over the passions is his method by which even the weakest soul can have absolute power over its passions. He thinks that through habituation we can separate movements of the pineal gland from the thoughts to which they are joined by nature and can join them to certain other thoughts. So, for example, the brain movements that by nature represent the shape of certain letters to us come to make us conceive, as the result of habituation, what those letters signify instead of their shape. This example of the letters suggests that he thinks that we can change the type-type causal connections between brain events and their mental effects. A type of pineal movement that by nature brings about the passion of fear can be made to bring about some other passion. But in elaborating on some other examples—in which it is not entirely clear whether he intends to be describing the same mechanism as that in the letter example or an additional mechanism—he strongly suggests that we can change the type-type causal connections between different brain events: he says we can separate the brain movements that represent certain objects to the soul from those that produce certain passions and join them to other very different movements (AT XI 369–70; CSM I 348, a50).

He thinks that such a habit can be acquired by a single action and does not require long practice, and that any soul can gain power over its passions if it is guided in the right way. This is, a weak soul that might not be able to suppress a passion once it is present can, by developing the right habits, prevent the passion from occurring in the first place. Descartes's theory for controlling the passions can be usefully characterized by appeal to a contemporary distinction made by Fred Dretske between structuring causes and triggering causes. A structuring cause causes an event E to have a certain effect R instead of some other effect S; a triggering cause brings about the event E that has the effect R.[29] So, for example, the triggering cause of a light's going on would be the turning of the switch, and its structuring cause would be the electrician's wiring the switch to the light (and not, say, to the garbage disposal). Descartes seems to think that the soul is both a structuring and a triggering cause of the passions. The strength of a soul is determined by how well it fares as a triggering cause in competition with the animal spirits in causing or preventing passions and in competition with present passions in determining the will. But it is the soul's ability to be a structuring cause of the passions that gives even the weakest souls absolute control over them.

Descartes's account of the soul's control over the passions thus involves three arenas of conflict. First, there can be conflicts between the soul and the body over

which will be the triggering cause of our ideas and thus of the resulting motions of the animal spirits that produce our passions. Second, there can be conflicts between our present passions and our firm and determinate judgments of good and evil over which will be the triggering causes of our volitions to pursue or to shun something (or alternatively, sometimes Descartes describes this conflict as one between the animal spirits and our volitions to pursue or to shun something over which will determine the movements of the pineal gland that cause our bodies to move in certain ways). Third, either nature or habit can be the structuring cause of our passions.[30]

13

Freedom and Strength of Will

Descartes and Albritton

In his intriguing and entertaining presidential address to the American Philosophical Association, Rogers Albritton defends the Cartesian view that the will is so free in its nature that it cannot be constrained.[1] But Albritton's account of freedom of the will differs in some fundamental ways from Descartes's account. In this essay, I shall examine the differences between the two accounts.

In defending absolute freedom of the will, Albritton distinguishes freedom of will from two other notions with which it is often confused. First, he argues decisively against the pervasive tendency to identify freedom of will with freedom of (bodily) action.[2] To restrict someone's freedom of movement, by putting him in chains or even by administering curare, is not to diminish the will's freedom. Such measures diminish only the efficacy of the will; that is, they disable the will, but they do not affect its freedom. On Albritton's view, our will is free if what we propose to do is up to us.[3] Our will is efficacious if our proposing to do something brings about its being done. Albritton is surely correct that we might freely propose to do something that does not get done because our will is ineffective.

Second, Albritton distinguishes between freedom of will and strength of will. He invokes this second distinction to block the claim that lacking the strength of will to resist doing something is a case of unfreedom of the will, but he does not attempt to justify this second distinction.[4] In defense of Albritton, one might well be tempted to link the will's strength with its efficacy. A weak will is presumably less effective than a strong will. If someone has a weak will, what he proposes often does not get done. Although a weak will need not be completely ineffective—the things that a weak-willed person proposes that do get done must be relatively easy.[5] A person with a strong will, on the other hand, proposes difficult things, and what he proposes gets done. Not even a strong-willed person can be expected to overcome every obstacle, so perhaps his ultimate goals are not achieved. But in that case, he must accomplish some things that count as working toward those ultimate goals, and to that extent his will must be efficacious. In so linking strength of will to efficacy of

will, these considerations suggest that a weak will might still be fully free. What I propose to do might be fully up to me, even if I am not very effective in carrying out that proposal.

On this understanding, strength of will has to do with the output side of will. What I mean by this can be illustrated in terms of Descartes's conception of the will. He says that our volitions come directly from our soul (AT XI 342; CSM I 335; a17), so in some sense the soul is their source. But he distinguishes between volitions that also terminate in the soul and those that terminate in the body (AT XI 342–3; CSM I 335, a18). Volitions that terminate in the body are those we normally associate with human action, where this is understood by Descartes as falling into two broad categories: pursuit and avoidance.[6] What I mean by the output side of will, then, is the bodily action in which a volition terminates.

One might think of volitions that terminate in the body as being in competition with other internal sources of bodily action. These other sources of bodily action might be conceived, as they were by Plato and Aristotle, as other parts of the soul.[7] Or they might be conceived, as they were by Descartes, as something in the brain (AT XI 365; CSM I 346, a47). A strong will is one that tends to win these struggles; a weak will is one that tends to lose them. So, for example, a volition that I stand my ground in the face of some danger might be in competition with an effort by some other part of me to make me flee. That I do stand my ground is an indication that my will is strong; that I don't is an indication that my will is weak. When one thinks of the will as being in competition with other internal sources of bodily action, it is clear that its efficacy depends on its strength on the output side.

There is, however, a contrasting conception of strength of will according to which it has to do not with the output side but with the input side. So we often think of a strong-willed person as someone who resists outside forces in making decisions or in sticking to them. These outside forces need not be outside the person. They might be conceived as being inside the person but outside some privileged part or aspect of the person. Thus, a strong-willed person is often regarded as someone who listens to the voice of reason, understood as a part or aspect of the self, while resisting the passions.[8]

So long as strength of will is considered from the output side, I agree with Albritton that freedom of will is independent of strength of will. But it is far from clear that freedom of will is independent of strength of will considered from the input side. According to Albritton, our will is free, if what we propose to do is up to us. It is not obviously wrong to say that if our will is weak on the input side, what we propose to do isn't really up to us. What we decide to do is instead determined by an external force. Indeed, when Descartes says that certain remedies against excessive passions prevent the soul from losing its free judgment, he implies that without such remedies the passions or at least their excesses could cause us to lose our free judgment (AT IV 411; CSMK 287).

Even though Descartes and Albritton both claim that our will is so free in its nature that it cannot be constrained, they thus apparently differ on the relation of the will's freedom to its strength. Albritton believes on conceptual grounds that weakness of will is no barrier to freedom of will. Descartes, however, believes that one must take certain practical steps to insure freedom of will. Underlying this disagreement is a fundamental difference in their conceptions of free will. Let us begin with Descartes's conception.

Descartes defines the will not only as the power to pursue or shun but also as the power to affirm or deny (AT VII 57; CSM II 40). Thus the will has to do with judging or believing (affirming or denying) and with choice (pursuing or shunning). He thinks that the will is inclined to affirm what appears true, to deny what appears false, to pursue what appears good, and to shun what appears evil. The more clear and distinct the perception, the stronger the inclination. So Descartes asserts that our will cannot tend toward anything else but truth and goodness and that a person embraces what is true and good more willingly and freely in proportion to seeing it more clearly. He asserts that we are at our freest when a clear perception impels us to pursue some object (AT VII 432–3; CSM II 292). Finally, he asserts that "the will of a thinking thing is drawn voluntarily or freely (for that is the essence of will), but nevertheless infallibly, towards a clearly known good" (AT VII 166; CSM II 117).

Descartes maintains that our sensory ideas—our sensations of color, sound, heat, cold, and the like—are obscure ideas that, by a natural impulse, prompt us to make judgments that things resembling them exist in bodies external to us (AT VII 38; CSM II 26). These judgments are false, but he thinks we can refrain from making them because it is within our power to withhold our assent from ideas that are obscure or confused (AT VII 59; CSM II 41).

Our passions are like our sensations in that they are obscure or confused perceptions (AT XI 349–50; CSM I 339, a28). Descartes sometimes talks as if they have an influence on the will in virtue of being representations of things as good or as evil (AT XI 431; CSM I 377, a138). An idea that represents something as good might influence the will in two different ways. First, it might influence us to make the judgment that the thing is good. Second, an idea that represents something to us as good might influence us to pursue that thing. Suppose that we have made the judgment that something is bad, but now a particular passion represents it to us as good. Descartes thinks we might pursue that thing. That is, we might choose in accordance with our present passion instead of choosing in accordance with our judgment. This would seemingly be an instance of weakness of will. Indeed, Descartes defines strength and weakness of souls in terms of their ability to follow firm and decisive judgments concerning good and evil and to resist present passions opposed to those judgments (AT XI 368; CSM I 347, a49).[9]

To the extent that present passions are seen as alien forces operating through the will, it seems plausible to say, as Descartes does, that a will that obeys them is enslaved (AT XI 367; CSM I 347, a48). It seems plausible even if we suppose that the

will could have resisted them successfully but failed to. The failure to resist the passions successfully in choosing what to do can be seen as analogous to other sorts of failures in which it seems wrong to say that the outcome is something I do freely. If a long jumper lands short of a distance that, on the basis of his having reached it on his previous attempt, we reasonably suppose he could have reached, it seems wrong to say that that fact by itself shows that he landed short freely. Or if I don't succeed in my attempt to suppress a sneeze, even if I might have succeeded, it still seems wrong to say that my sneezing is something I do freely. By the same token, I don't will freely to run from a burning building if I do so out of fear, even if I overcame that fear yesterday in a similar situation and remained long enough to carry someone to safety.

To be free and not enslaved, a weak will therefore needs a way of transforming the passions so that they are no longer alien forces. Descartes claims that by using techniques most closely associated these days with behavioral psychology even the weakest soul can gain control over which passions it has (AT XI 368–70; CSM I 348, a50). We—that is, our bodies or the connections between our souls and our bodies—can be "rewired" in such a way that a given first cause produces a passion different from the one it would naturally produce.[10] It is in virtue of this capacity to determine which passions they have that souls are claimed to have absolute control over the passions. Any force over which we have absolute control is ours; it is no longer alien to us.

Albritton, although he does not say so explicitly, rejects the Cartesian view that the will is inclined only to those things that have some appearance of goodness (AT XI 464; CMS I 392, a177) and that the will is drawn infallibly toward a clearly known good. He seems to think that if the will were inclined only to things of a certain sort or infallibly drawn toward anything, what we propose wouldn't be up to us, and in that case the will wouldn't be free.[11]

This feature of Albritton's view is revealed most clearly in his response to the objection that "every decisive, compelling reason to make one choice rather than another reduces one's freedom of will."[12] In complete contrast to Descartes, who holds that being compelled by reasons, in the form of clear and distinct ideas, is the highest form of freedom, Albritton holds that it is always open to us to decide not to do what reason or anything else dictates. Albritton thus seems to be identifying freedom of will with what is known as the liberty of indifference. Liberty of indifference is typically defined in terms of acting: a free agent is one who, all the conditions required for action having been posited, can either act or not, or perform a contrary action.[13] But liberty of indifference could easily be redefined in terms of choosing: our will is free if, all the conditions required for choosing having been posited, we can either choose or not, or choose the contrary.[14]

Underlying these rival conceptions of freedom—Descartes's compulsion account on the one hand and the liberty of indifference on the other—are, it seems to me, different conceptions of the self.[15] Descartes believes that reason or intellect is our essence. So to be compelled by reason, in the form of its clear and distinct ideas,

is to be compelled by oneself. But Albritton, in his denial that we are compelled by reason, seems to conceive of being compelled by reason as being compelled by something external to us. Descartes thus has an internalist account of reason—it is internal to the self—whereas Albritton has an externalist account.

Albritton, however, does not tell us what he thinks the self is, so not only is there no positive theory on which to evaluate his view that reason is external to the self but also it is not clear what he means by saying that what we propose to do is up to us if our wills are free. Up to what exactly? In Descartes's case, at least we know what this means: up to reason or intellect. Of course, one's sympathies might well be with Albritton here. Even if one does not go so far as to reject as misguided any attempt to provide a positive ontological theory of the self, one might agree, as I do, that it is a mistake to reify reason and incorporate it into the self.

But even if one went so far as to suppose that we do not need any positive account of the self to understand what it is for something we propose to be up to us, one fundamental problem with the liberty of indifference is that it posits "a requirement of indetermination" that seems to detach what is proposed from the rest of us in such a way that it does not seem plausible to say that it is proposed by us.[16] This problem would seem especially acute with respect to beliefs and desires. How could what we propose to do be up to us if it is not in accordance with our beliefs and desires? Indeed, it would seem that if what we propose to do is really up to us, not only must it be in accordance with our beliefs and desires, but it must be caused by our beliefs and desires.

One strategy to reconcile the liberty of indifference with the thesis that our choices are caused by our beliefs and desires is to deny that being caused to do something entails being compelled by it. So one might assert that our beliefs and desires can cause us to propose one thing rather than another and deny that they can compel us to propose that thing. One might also maintain that reasons can be causes of what we propose, while at the same time denying, as Albritton does, that they compel us. By holding that we are free so long as we are not compelled, one could argue that we are free even though what we will is caused by our beliefs (or by reason).

Albritton seems to acknowledge that there is a tight connection between belief and will when he says, "One can leave the will alone and get excellent results even now, by manipulating belief instead. Convince me that your enemy is the Antichrist and I will no doubt behave satisfactorily, in full freedom of will. How else should one behave toward Antichrist?"[17] It is not clear, however, how much Albritton is conceding here. In particular, it is not clear that he is granting that our beliefs can cause our choices.

First, there are indications that he is uncomfortable with the compatibilist attempt to draw a distinction between what we are caused to do and what we are compelled to do. So he says that he is foggy about the idea that a free decision might nevertheless be determined by natural laws, "possibly because I am bogged down in superstitions about natural law and the causal nexus."[18] But perhaps this remark

does not reflect a concern about the coherence of supposing that a free decision is caused by other events or states, such as beliefs, but instead reflects a concern about the coherence of supposing that a free decision is determined by natural laws. In other words, it reflects a concern about a specific kind of causation: determination by natural laws.

Second, Albritton maintains that the connection between our choices and one important class of beliefs is not causal but conceptual. Our beliefs about what is impossible can constrict our choices without interfering with our freedom of will because, Albritton claims, it is a conceptual truth that we cannot choose contrary to such beliefs. He says, "it seems to me not deficiency of free will that one can't just up and go against knowledge and belief (insofar as one can't) because that 'can't' is again, not psychological or metaphysical either, but 'grammatical' or 'conceptual.' "[19] Albritton claims not only that it is a conceptual truth that we can't decide to do what we believe is impossible, but also that what we can try to do is conceptually constrained by our beliefs: "Trying to walk isn't a perfectly imaginable little act of the will, separate and distinct from all belief and contingently blocked in him [the chained man] by belief."[20]

There is reason to attribute to Albritton the view that the connection between our belief that someone is the Antichrist and our subsequent decision to behave toward him in a certain way is also conceptual and not causal. Otherwise, it is hard to see on what grounds Albritton can maintain both that manipulating us to have that belief will produce excellent results and that it will not interfere with our freedom of will. However, this example is especially troubling for our understanding of Albritton, because the belief that someone is the Antichrist seems to influence our decision to behave toward him in a certain way in virtue of providing a reason (or at least connecting us to a reason) for behaving toward him in that way. If our choices are conceptually connected to our beliefs in virtue of those beliefs being connected to reasons for those choices, then it would seem to follow that those reasons are also conceptually connected to those choices and hence that those reasons determine our choices. But Albritton denies that reasons determine our choices.

On the other hand, to say that manipulating our beliefs provides excellent results is not necessarily to say that it provides infallible or inevitable results. So perhaps Albritton's view is that manipulating beliefs provides the results it does not because the connection between those beliefs and our choices is conceptual but instead because it is a fact about human beings that most of us usually act in accordance with overwhelming reason of the sort we have when we believe that someone is the Antichrist.

But this fact, if it is a fact, cries out for explanation. Why do most of us usually choose in accordance with reason? This question points to still a further problem with the liberty of indifference. Understanding liberty as indifference precludes an important kind of explanation of human behavior. It does not preclude all

explanation of human behavior—when someone does choose in accordance with reason, we could still explain his behavior by appeal to those reasons. But if freedom requires indifference if it requires that we can always choose contrary to reason, then the fundamental question of why someone does or does not choose in accordance with reason is unanswerable. Albritton seems implicitly to concede this when he says:

> How very odd that the obvious reasons to stop behaving in this way don't weigh with him as decisively as one might expect! Well, yes, it is odd, but there it is: they don't, and he doesn't stop. . . .[21]

> But having to do a thing does not settle magically the question whether to do it or not. Reasons, of whatever species, logically can't close that question. It's a question of a different genre, and is not relative to any system of reasons. It isn't for reasons, in the end, that we act for reasons.[22]

One's philosophical sympathies on this point might once again lie with Albritton. It might be seen as a virtue of his theory that we should cease looking for an explanation of why we do or do not choose in accordance with reason. But I don't think freedom of will should require us to be such mysterious creatures as that.

It is interesting that in defending a more radical view of free will than Descartes, Albritton allows for manipulation of belief of the sort Descartes, at least according to his official view in the *Meditations*, would reject as impossible. Albritton distinguishes believing from willing, whereas Descartes, as we have seen, identifies believing with judging—that is, with assenting and denying, which are modes of willing. On Descartes's theory, to manipulate our beliefs would be to manipulate our will. But since he thinks that all clear and distinct ideas are true and that we can always refrain from assenting to an idea that is not clear and distinct, he is able to maintain that all false beliefs are ultimately "up to us." They are our own responsibility.

Albritton's treatment of the relation between desire and choice differs drastically from his treatment of the relation between belief and choice. On the one hand, he claims that to the extent that desires are taken to give us reason to behave one way or another, they are as powerless as any other species of reason.[23] On the other hand, he compares acting from desire or acting out of fear with being put in chains or being violently thrown into bed in order to suggest that in such cases there is no interference with freedom of will because we haven't done anything. That is, he is inviting us to suppose that when we act from desire or out of fear, choice is bypassed.[24] By holding that choice is bypassed when we act out of passion, Albritton is in a position to claim that the passions can interfere only with our freedom of action, not with our freedom of will. Indeed, Gary Watson claims to have learned from Albritton that it is a mistake to think of one's own desires and emotions as potential impediments to free will, because "however internal, these obstacles are

still obstacles in virtue of their (potentially) getting in the way of implementing one's will."[25]

For our purposes, this is perhaps the most fundamental difference between Descartes and Albritton. Descartes thinks that present passions influence behavior by operating through the will. They influence us in making choices; they don't affect merely the implementation of those choices.[26] Since the passions operate through choice, they are potential impediments to free will.

To be sure, when there is a conflict between our firm and decisive judgments concerning good and evil and our present passions over which will govern our choices, those passions are potential impediments to the implementation of those judgments, and therefore, since Descartes also considers judgments to be acts of will, it follows that he thinks the passions are potential impediments to the implementation of our will. This might make it seem as if the dispute between Albritton and Descartes over whether the passions bypass the will or operate through the will is merely terminological. If we can construe Descartes in speaking of judgments concerning good and evil to be referring to the same thing as Albritton in speaking of proposals to do something, then it looks as if they are in basic agreement that passions are obstacles to freedom in virtue of interfering with the implementation of our will.

But the differences between Descartes's and Albritton's accounts of the relation between the passions and the will are not merely terminological. First, judging that something is good is not the same as proposing or choosing to do it. It is a mistake to think of Cartesian judgments as choices. Second, and here lies the crux of the matter, what underlies the dispute between Albritton and Descartes over whether the passions operate through choice or bypass choice is a dispute over whether we are doing something when we act out of passion. Descartes thinks we are; Albritton thinks we are not. Third, Descartes thinks that the passions can influence us in making judgments as well as in making choices. Thus they can affect the input side of judgment as well as the output side.

To allow as Descartes does that passions influence us in making choices and in making judgments opens the door to the possibility that they can interfere with our freedom of will. Descartes's assertion, mentioned earlier, that a soul that obeys its present passions is enslaved does provide important evidence that he thinks weak souls that have not made use of his behavior modification techniques are unfree. But that is only one of several characterizations he gives of the relation between the passions and the will, which are in turn subject to various interpretations as to their implications for the freedom of weak souls.

Sometimes Descartes suggests that we should think of the passions as forces acting on the will. For example, he says that the passions "almost always make both the goods and the evils they represent appear much greater and more important than they are, so that they incite us to seek the former and flee the latter with more ardor and more anxiety than is suitable" (AT XI 431; CSM I 377; V 93, a138).[27] This language

strongly suggests, although it certainly does not entail, that Descartes thinks the passions can cause our volitions to pursue or to shun something.

An additional reason for ascribing to Descartes the view that the passions can cause our volitions is provided by the analogy of passions with sensations (indeed, he defines passions as sensations (AT XI 349–50; CSM I 338–9, a27–9). In the *Third Meditation*, he describes our judgments based on sensations as resulting from natural impulses that push us in certain directions (AT VII 38–9; CSM II 26–7). That language certainly sounds causal. Thus if the passions' relation to the will is similar to that of other sensations, it, too, would be causal.

If our passions cause our volitions, and if those passions are in turn caused, as Descartes thinks most of them are, by things external to us, then I believe Descartes would argue, and I would agree with him, that the resulting volitions are not up to us and hence are not free.[28] I believe that this conclusion follows even if we suppose, as I believe Descartes does, that the notion of being caused is distinct from and weaker than the notion of being compelled. If our will is free only if what we choose to do is up to us, then freedom of will would seem to require not merely that we are not compelled to make a given choice by something external to us but also that we are not caused to make a given choice by something external to us.

Descartes does claim that some of our passions have their origin in our decisions to think about this or that (AT XI 371; CSM I 349, a51), and it would seem that any volitions caused by those passions would be up to us. If, moreover, we make use of the behavior modification techniques to rewire ourselves, then the passions resulting from that rewiring and the volitions they cause would be up to us and hence free, even if our soul remains weak because our volitions to pursue or to shun are not caused by our firm and decisive judgments concerning good and evil.

Descartes's assertion that the soul will be enslaved if it obeys present passions invites us to think of the passions not as forces acting on the soul but as potential masters to be obeyed or disobeyed. To think of the passions as the master and the will as the slave is different from thinking of the passions as causes of acts of will. In commanding the slave to behave in a certain way, the master does not cause the slave's behavior. It remains true, nevertheless, that the slave is not free. What the slave proposes to do in obeying the master is up to the master rather than the slave. Even though it remains in the slave's power to disobey, it would be perverse to draw the conclusion that his decision to obey is free.[29] He is not free to disobey because of the sanctions attached to disobedience.

To say that the slave is not free is not necessarily to imply that the slave does not have free will. Suppose the slave disobeys (as a matter of principle, not just out of anger). In that case what he does is up to him, so it seems right to say that he disobeys freely. But it still seems right that he does something he is not free to do (even if we agree that it was within his rights to disobey). He is not free to disobey, because as soon as he does, he is going to be constrained by the master. But if the

slave were sufficiently strong that he could not be constrained, he would be free to disobey. So the slave's freedom or lack of it depends on his strength or lack of it. If he can overcome the master, he is free; if not, he is not. Now if our passions could constrain a disobedient will in something like the way master constrains a disobedient slave, then it seems right that our will is no longer free to disobey them. The will has the power to choose to disobey, but if it does, it will be thwarted. If this is right, then it follows, contrary to my original agreement with Albritton, that freedom of will does depend on the will's strength on the output side, in the same way that a slave's freedom is blocked by a lack of strength. Moreover, we can't intelligibly say of the will, as we might of the slave, that even though it isn't free, it still has free will.

But we might say of the will that whether it disobeys is up to it. So even if the will is not free to disobey the passions, it might still disobey them freely. Perhaps the lesson here is that there are two notions of freedom of will, one corresponding to strength on the input side and one to strength on the output side. The slave analogy shows how a will might be unfree because it is not sufficiently strong on the output side. To see how a will might be unfree on the input side, we need to rely on one of Descartes's other characterizations of the relation between the passions and the will—for example, that the passions are a force acting on the will.

In any case, if the passions can diminish the will's freedom in the same way that a master diminishes the freedom of the slave, it must be because the passions can apply sanctions to the will should it disobey. At this point, we get no help from Descartes. He does not push his metaphorical language so far as to discuss how the passions might respond if disobeyed. He does say that the passions compel us to dwell on certain thoughts, which could be construed as a particularly harsh kind of sanction, except that he makes that assertion in the context of explaining what the passions are (AT XI 404; CSM I 364, a102).

Still a third way Descartes characterizes the relation between the passions and the will is to say that a weak soul "continually allows itself to be carried away by present passions" (AT XI 367; CSM I 347; V46, a48). This language suggests that the soul either is seduced by the passions or allows itself to be seduced by the passions. Allowing oneself to be seduced or even being seduced is a far different matter from being enslaved, and its implications for loss of freedom are much less straightforward. There is some temptation to say that if the soul allows itself to be carried away, if it allows itself to be seduced, then it is the soul that is the master and not the passions. The passions are a force over which the soul has control, but which it allows to act on it. On such a picture, it seems correct to say that what the will proposes is still up to it, even when it follows present passions, and hence that even a weak soul remains free.

On the other hand, it is not so clear that being seduced is correctly characterized as something that we allow to happen to us. If we allow something to happen, then we really aren't being seduced. Seduction is another way in which our will is

overpowered. When we are seduced, what we propose to do is not really up to us, it is up to our seducer. On this way of looking at seduction, it does imply a loss of freedom. And even if it is sometimes correct to say that we allow ourselves to be seduced, that might still entail a loss of freedom in the same way that our having allowed ourselves to be conquered or enslaved does not diminish the resulting loss of freedom.

Descartes's own stance toward the implications of his speaking in terms of the will allowing itself to be conquered or seduced by the passions is not clear (AT XI 367–8; CSM I 347, a49). He makes use of this language not in reference to our volitions to pursue or to shun things but in reference to our judgments concerning good and evil. His official position in the *Meditations* is that we can refrain from assenting to obscure and confused sensations, by which he seems to be implying that if we do assent to them we must do so freely. So perhaps he believed that if we allow our will to be seduced or conquered, our judgments are still free. Or perhaps he changed his mind between the *Meditations* and the *Passions*, coming to believe that some of our obscure and confused sensations do result in judgments that are not free. Or perhaps he believed that while we can refrain from making judgments that involve only the acquisition of knowledge and not action, we cannot refrain from making judgments that do involve action.

Let me turn now from this question of whether freedom of will requires strength of will to the converse question of whether strength of will is sufficient for freedom of will. Descartes defines a strong soul as one that follows firm and decisive judgments concerning knowledge of good and evil as opposed to present passions. If we can identify a Cartesian strong soul's evaluational system with its firm and decisive judgments concerning knowledge of good and evil, then it will be a free agent in the sense defined by Gary Watson: what it does, or at least what it proposes to do, expresses its evaluational system.[30]

One advantage of identifying a soul's evaluational system with its firm and decisive judgments concerning knowledge of good and evil is that it avoids an objection, raised by Watson himself in a later article, to defining free will by appeal to the notion of an evaluational system or standpoint. Watson objects that such a definition of freedom is "altogether too rationalistic."[31] But since the firm and decisive judgments of a Cartesian soul need not be founded on the clear and distinct ideas of reason but may instead be founded "on passions by which the will has previously allowed itself to be conquered or seduced" (AT XI 368; CSM I 347; V 47, a49), its evaluational system is broader than the merely rational.

At the same time, however, this alleged advantage of identifying a soul's evaluational system with its firm and decisive judgments concerning knowledge of good and evil points to an important objection to Watson's fundamental strategy of defining freedom of will in terms of acting in accordance with those courses of action we "identify with" or "embrace."[32] If we think that those firm and decisive judgments founded on passions by which the will has previously allowed itself to be

conquered or seduced are not up to us and hence not free, then it would follow that our evaluational system is not entirely up to us and hence not entirely free. And since it seems right that we do "identify with" or "embrace" our firm and decisive judgments concerning good and evil, including those founded on previous passions, it would follow that the process of identifying with or embracing a course of action is not sufficient to make it up to us. And if it is not up to us, then it would seem not to be free.

I have to confess that I myself do not know what to make of this objection. Although I won't deny that if someone's evaluational system consisted entirely of judgments founded on previous passions he would hardly be free, in some moods it strikes me as too stringent a demand on freedom of will that every judgment concerning good and evil that constitutes our evaluational system be up to us.

In other moods, however, I think that one lesson to be drawn from Descartes is that Watson, in trying to define freedom in terms of acting in accordance with those courses of action we "identify with" or "embrace," has mistaken strength of will for freedom. Complete freedom requires that the judgments we identify with or embrace be up to us. Descartes does have a theory to explain how that is possible—namely, that all of our judgments concerning good and evil be based only on clear and distinct ideas—but that theory involves the objectionable move of identifying the self with intellect or reason.

Watson raises a second objection to his own attempt to define free will by appeal to the notion of an evaluational system or standpoint. He notes that there are certain perverse cases in which we do things contrary to what we would be prepared to accept from a more general evaluational standpoint. He argues that because our will is fully behind what we do in these cases, they cannot be explained as instances of weakness of will.[33] Therefore, some things that we do freely do not express our evaluational system.

Descartes's account reveals how, contrary to Watson's claim, these cases can be understood as instances of weakness of will. On Descartes's account, our souls are weak if there is a gap between our firm and decisive judgments concerning good and evil and our volitions to pursue or to shun. In other words, our wills are weak if our choices are not in accordance with our values. There is a perfectly good sense in which we are not estranged from such choices: they are our acts of will after all. But since such choices result from our will being carried away by present passions, they are manifestations of weakness. And therefore, if the main argument of this essay is correct, these choices are also not free.[34]

Reply to Gary Watson's Comments

Gary Watson has asked me how the idea that freedom requires that something be up to us and the idea of freedom as rational self-realization fit together in the Cartesian view.

I think that Descartes's view is that those two distinct ideas of freedom amount to the same thing. Something is up to us so long as it follows from our nature; but since our nature is reason, freedom amounts to rational self-realization.

Watson raises the objection that if Descartes's conception of what it is to be up to us does not require that our nature, our practical core, be in our power, then the requirement that what we do be completely up to us cannot be used as an argument against rival views such as Watson's own that hold that our actions (or our choices) are up to us just in case they are dependent on our evaluational system.

I agree with Watson that Descartes's account of what it is to be up to us is weaker than we might like. On Descartes's account, what we are—our nature—is not up to us. But I don't think it follows from that important admission that one can't use the requirement in question—that we are free so long as something is up to us—to criticize rival accounts. No matter whether one thinks Descartes is right or wrong in holding that it is a sufficient condition for something to be up to us that it follows from our nature, one might agree with him that it is a necessary condition for something to be up to us that it follows from our nature and use that as a basis for criticizing the view that a sufficient condition for free agency (or free will) is acting or choosing in accordance with those courses of action we identify with. The objection would be that our identification with a certain course of action might not be something that follows from our nature (if, for example, our identification with a course of action results from our being overcome by a passion).

In appealing to the Cartesian view that it is a necessary condition for something's being up to us that it follow from our nature to make this criticism of Watson, I was assuming that Watson views the self as distinct from the person's evaluational system, that is, from the courses of action that the person identifies with. Such a distinction between the self and the person's evaluational system would make room for the possibility that it is not up to the self whether it identifies with a particular evaluational system.

But in his comments Watson makes it clear—which I did not realize before—that instead of distinguishing the self from the person's evaluational system, he wants to identify the self with the person's evaluational system. Given that he makes this identification, then I agree with him that the crucial issue in choosing between his account of freedom and Descartes's account is whether it is preferable to identify the self with intellect or reason or with the person's evaluational system. I have already expressed dissatisfaction with the Cartesian identification of the self with reason. And I have been tempted to suppose that the self is something we ourselves construct by internalizing or failing to internalize various social roles such as those of parent, teacher, researcher, neighbor, citizen, and so on. So I do have sympathies with Watson's view. But other times I am enough of a Cartesian to think that Descartes is correct in holding that the self is a subject and that it has a nature that is not up to us, which I take to preclude identification of the self with the person's evaluational system.

A further claim Watson makes about my interpretation of Descartes's account of free will is this: unless the individual's choice to adopt or not adopt the regimen by which we subdue our passionate natures is free, then the realization of complete freedom will not necessarily be within our power. This is correct. While Descartes believes that even the weakest souls have the capacity to gain absolute control over their passions, he does not think that it is entirely up to them whether that capacity will be developed. On the contrary, he suggests that they will need training and guidance from other people (AT XI 370; CSM I 348, a50). Moreover, a person with absolute control over the passions is not necessarily completely free. Complete freedom, for Descartes, requires that all our judgments and choices follow from clear and distinct ideas. This is an unattainable ideal. Our intellectual limitations together with the fact that we cannot avoid making judgments pertaining to action entail that some of our judgments will not be compelled by clear and distinct ideas. Such judgments will not be fully free. So even if our choices always follow our firm and decisive judgments concerning good and evil and never follow a present passion, not all of our choices will be fully free, since not all of those judgments will be fully free.[35]

14

The Passions and Freedom of Will

My aim in this essay is to gain a clearer understanding of Descartes's account of how the passions influence our behavior and how this influence affects our freedom. I will begin by examining human action that Descartes considers to be fully free. I will then investigate at what points and in what way Descartes thinks the passions can intervene in the process by which bodily movements are produced. Finally, I will try to answer the question of how such interventions affect our freedom.

1. Fully Free Actions

A fully free human action for Descartes consists of a certain sequence of thoughts that produces or terminates in bodily movements.[1] The sequence begins with a clear and distinct idea of something as good (or evil). This clear and distinct idea leads us to make the judgment that the thing is good (or evil). The judgment that the thing is good (or evil) in turn leads us to pursue the thing (or to avoid the thing). Volitions to pursue or to avoid bring about motions in the pineal gland. These motions in the pineal gland, by controlling the flow of the animal spirits to the muscles, produce bodily movements. So the sequence consists of five basic elements: a clear and distinct idea, a judgment, a volition to pursue or to avoid, a pineal movement, and bodily movement.

Descartes also recognizes a class of volitions that do not terminate in the body but rather in the soul. Examples of such volitions include volitions to attend to intellectual ideas and the volition to love God (AT XI 343; CSM I 335, a18). These volitions would also count as fully free actions when they arise from clear and distinct ideas. But it might not be inappropriate to refrain from calling them human actions, since they involve only the mind and not the mind and body.

The most interesting philosophical and interpretive issues regarding Descartes's account of fully free human action concern the relations between the various steps

of the sequence, especially between the first step, the clear and distinct ideas, and the second and third steps, judgments of good and evil and volitions to pursue or avoid. Before turning to these issues, we need to get clear on Descartes's understanding of the distinction among ideas, judgments, and volitions to pursue or avoid. Clear and distinct ideas are perceptions, and all perceptions are operations of the intellect (AT VIIIA 17; CSM I 204). Contrary to his predecessors who also attributed judgment to the intellect, Descartes maintains that judgments, that is, affirmations and denials, are modes of the will and as such are actions (AT VII 56–7; CSM II 39–40).[2] Judgments would therefore constitute another class of fully free actions when they result from clear and distinct ideas (again, we might plausibly refrain from referring to them as human actions since they also do not terminate in the body). Volitions to pursue or avoid are more standardly recognized as belonging to the will. In an earlier essay, I described these volitions as choices, but I now think that was a mistake.[3] Instead, I think that they more nearly resemble those acts of will that Aquinas called use, that is, they are acts of the will by which the soul activates other powers of the human being, typically the motive power, as when we pursue or avoid something.[4] The judgments that precede these volitions to pursue or shun correspond more closely to what Aquinas called choice. But even here there is not an exact match. Aquinas held that choice follows deliberation about the best means to an end;[5] but in the *Fourth Meditation* Descartes asserts that if he always saw clearly what was true and good, he should never have to deliberate about the right judgment or choice, but he would be wholly free (AT VII 58; CSM II 40). A second point of contrast is that on Aquinas's view, choice is not itself a judgment, but rather it follows a judgment.[6]

Since Descartes distinguishes between perceiving and judging, and maintains that strictly speaking only judgments are true or false (AT VII 36–7; CSM II 25–6), we need to be careful in our choice of locutions in describing Cartesian perceptions. To say that I clearly and distinctly perceive that something is the case implies that I also judge it to be the case and thus leaves no room for judgment as a mode of thinking distinct from perception. So to preserve his distinction between perceiving and judging, 'that' clauses should be reserved for judgments. Instead of saying, for example, that I clearly and distinctly perceive that a triangle has three angles, we should say that I have a clear and distinct perception of a triangle having three angles or that I clearly and distinctly perceive a triangle as having three angles. We might also say that I clearly and distinctly perceive the proposition that a triangle has three angles as true. In the case of goodness, instead of saying that I clearly and distinctly perceive that z is good, we should say that I have clear and distinct perception of z as being good or that I clearly and distinctly perceive z as good.

The main interpretive and philosophical issue regarding the relation between our clear and distinct perceptions and our volitions has to do with the will's aim. Descartes asserts in the *Replies to the Sixth Objections* that our will cannot tend toward anything

else but truth and goodness and that a person embraces what is true and good more willingly and freely in proportion to seeing it more clearly (AT VII 432; CSM II 292).[7] In asserting that our will cannot tend toward anything else but truth and goodness, Descartes surely does not mean to imply that our wills are infallible trackers of truth and goodness. He must be intending the weaker claim that our will can only tend toward what is perceived as true or good. But even this is a strong claim, for it implies that we cannot aim at evil as evil, even when our ideas are not clear and distinct. The second part of the assertion, that "a person embraces what is true and good more willingly and freely in proportion to seeing it more clearly," suggests that the clarity of our ideas correlates with the degree of freedom of our acts of will, both our judgments and our volitions to pursue or shun. So this passage suggests that our will is such that we must pursue what we perceive to be good, and that we are more free in pursuing the good the more our ideas are clear and distinct.

Descartes nevertheless believes that we are capable of doing wrong. In a letter to Mesland, May 2, 1644, he explains how it is possible for us to sin. Sin does not require that we see clearly that what we do is evil; on the contrary, it requires that we do not see clearly that what we do is evil. He says we can do wrong either because we see the evil confusedly or because we do not in any way see it as evil but remember having judged that it is evil (AT IV 117; CSMK 234). These remarks can be construed to suggest that we can pursue evil as evil provided only that we see the evil confusedly. Such an interpretation might seem to be reinforced by another letter to Mesland, February 9, 1645, when Descartes asserts that we have a positive power to follow the worse although we see the better (AT IV 174; CSMK 245). If Descartes did intend to express the view that we can pursue the evil as evil provided only that we do not perceive clearly that it is evil, then his views changed between the time of the *Objections and Replies* and the letters to Mesland. However, it is unlikely that he did change his views, because in the *Passions* he asserts that "the will is inclined only to things that have some semblance of goodness" (AT XI 464; CSM I 392, a177). Thus it seems likely that he did not intend in the letters to Mesland to express the view that we can pursue evil as evil. Perhaps his view is that when we perceive evil confusedly we are not perceiving it as evil, and perhaps when he says that we have the power to follow the worse although we see the better, his thought is that when we follow the worse we do so only because it has some semblance of goodness.

In his letter to Mesland of May 2, 1644, Descartes suggests not only that our freedom of action is proportional to the clarity of our ideas but also that the strength of our will's inclination to the good is proportional to the clarity of our ideas. Thus he maintains that if our judgment that something is good is based on an idea that is clear and distinct, it is impossible for us not to pursue it so long as we attend to those ideas:

> And I agree with you when you say that we can suspend our judgment; but I tried to explain in what manner this can be done. For it seems to me

> certain that a great light in the intellect is followed by a great inclination in the will, so that if we see very clearly that a thing is good for us, it is very difficult—and, on my view, impossible, as long as one continues in the same thought—to stop the course of our desire. But the nature of the soul is such that it hardly attends for more than a moment to a single thing; hence, as soon as our attention turns from the reasons which show us that the thing is good for us, and we merely keep in memory the thought that it appeared desirable to us; we can call up before our mind some other reason to make us doubt it, and so suspend our judgment, and perhaps even form a contrary judgment. (AT IV 115–6; CSMK 233–4)

Here Descartes seems to commit himself unequivocally to the view that so long as we attend to our clear and distinct perceptions, they compel or necessitate our volitions to pursue or shun. There are, however, four prominent passages that suggest a weaker connection. The first is from his letter to Mesland of February 9, 1645:

> Let me explain my opinion more fully. I would like you to notice that 'indifference' in this context seems to me strictly to mean that state of the will when it is not impelled one way rather than another by any perception of truth or goodness. This is the sense in which I took it when I said that the lowest degree of freedom is that by which we determine ourselves to things to which we are indifferent. But perhaps others mean by 'indifference' a positive faculty of determining oneself to one or other of two contraries, that is to say, to pursue or avoid, to affirm or deny. I do not deny that the will has this positive faculty. Indeed I think it has it not only with respect to those actions to which it is not pushed by any evident reasons on one side rather than on the other, but also with respect to all other actions; so that when a very evident reason moves us in one direction, although morally speaking we can hardly move in the contrary direction, absolutely speaking we can. For it is always open to us to hold back from pursuing a clearly known good, or from admitting a clearly perceived truth, provided we consider it a good thing to demonstrate the freedom of our will by so doing. (AT IV 173; CSMK 245)

Here Descartes can readily be taken to withdraw the view expressed in the earlier letter to Mesland and to claim that, metaphysically speaking, we are not compelled to assent to something we clearly and distinctly perceive as true or to pursue something we clearly and distinctly perceive as good. Nevertheless, this passage need not be read as a retraction of the earlier letter to Mesland. Descartes does not go so far as to assert that while attending to a clear and distinct idea of z as good we can fail to judge that z is good or fail to will to pursue z. Rather his point seems to be that if we attend to another idea, namely that it would be a good thing to demonstrate our freedom of will by refraining from judging that z is good or by refraining from pursuing z, we can. If this is what he has in mind, then it is just an instance of the

method described in the first letter of avoiding making a judgment by paying attention to another idea.[8]

It has been argued by Peter Schouls on the basis of this passage that Descartes thinks we can always will not to pay attention to an idea, even when it is clear and distinct idea, and that this is how we can refrain from making the judgment.[9] But Descartes's language in the first letter to Mesland suggests that he conceives of the initial diversion of attention from our clear and distinct idea not as brought about by our will, but rather as something that we undergo:

> the nature of the soul is such that it hardly attends for more than a moment to a single thing; hence, as soon as our attention turns from the reasons which show us that the thing is good for us, and we merely keep in memory the thought that it appeared desirable to us; we can call up before our mind some other reason to make us doubt it, and so suspend our judgment. (AT IV 116; CSMK 233–4)

Second, the following passage from the *Principles* might seem to indicate that Descartes thinks we would not be subject to praise and blame if our judgments and volitions to pursue or avoid are necessitated by our clear and distinct perceptions so long as we attend to them:

> And it is a supreme perfection in man that he acts voluntarily, that is, freely; this makes him in a special way the author of his actions and deserving of praise for what he does. We do not praise automatons for accurately producing all the movements they were designed to perform, because the production of these movements occurs necessarily. It is the designer who is praised for constructing such carefully-made devices; for in constructing them he acted not out of necessity but freely. By the same principle, when we embrace the truth, our doing so voluntarily is much more to our credit than would be the case if we could not do otherwise. (AT VIIIA 18–9; CSM I 205)

I do not think this passage has such an implication, because it is only a contingent truth that we acquire and continue to pay attention to our clear and distinct ideas.[10] It is something we might easily fail to do or even fail to attempt to do. So even if we are compelled to assent to a clear and distinct idea of something as true and compelled to pursue something perceived as good, we are still praiseworthy for doing so, because we might not have succeeded in rendering our ideas clear and distinct.

A third passage that suggests that Descartes might have in mind a weaker connection between our clear and distinct ideas and our volitions is found in the *Replies to the Second Objections*. He asserts that "the will of a thinking thing is drawn voluntarily or freely (for that is the essence of will), but nevertheless infallibly, towards a clearly known good" (AT VII 166; CSM II 117). His choice of the term 'infallibly' as opposed to "necessarily" is significant because Aquinas uses the term 'infallibly' to

refer to things that happen certainly, but only contingently.[11] It would not be surprising if Descartes were also using the term "infallibly" in this sense. Accordingly, he can readily be taken to be asserting that it is only contingent and not necessary, but nevertheless infallibly certain, that while we are attending to something clearly and distinctly perceived as good, we will judge that it is good.[12]

One should not conclude too hastily from Descartes's appropriation of the term 'infallibly' that he thinks the connection between our clear and distinct perceptions, while we are attending to them, and our judgments and volitions to pursue or avoid is not causal. While some seventeenth-century followers of Aquinas hold that infallible connections fall short of causal determination, Aquinas himself does not believe that if the connection between x and y is merely infallible and not necessary, it follows that it is not causal.[13] On the contrary, Aquinas distinguishes between necessary and contingent causes and maintains that what is infallible but not necessary still has a contingent cause.[14] So if a seventeenth-century philosopher asserts that a judgment follows only infallibly from a clear and distinct perception, that does not by itself provide conclusive evidence that he thinks it is not caused by that perception.

Finally, one passage might seem to provide evidence for interpreting Descartes as holding that no volition—whether a judgment or a volition to pursue or to avoid—can be caused by a perception. He asserts in the *Passions* that all of our volitions are actions because they come directly from our soul and seem to depend only on it (AT XI 342; CSM I 335, a17). This assertion would seem to provide two related reasons for thinking that volitions are not caused by perceptions. First, to say that volitions come directly from our soul and depend only on it might seem to imply that they are caused directly by the soul alone and hence are not caused by perceptions. Second, to say that volitions are caused by perceptions might seem to imply that volitions are not actions but rather passions in the general sense of being what a subject undergoes as opposed to what it does. How can volitions be caused by perceptions and come directly from the soul alone? How can volitions be actions if they are caused by perceptions?

Volitions can be caused by perceptions and still be said to come directly from the soul if perceptions cause volitions by causing the soul to will something. It is true that Descartes's language sometimes suggests that the perception is the immediate cause of the volition, but other times it suggests that the perception causes the soul to will something. However, one might still wonder how a volition can seem to depend only on the soul if the soul's willing something is causally dependent on its having some perception. Several remarks are in order here. First, to depend only on the soul might just be to be caused directly only by the soul, in which case there is no problem. Second, since perceptions are not really distinct from the soul but are modes of the soul, a volition can be caused by a perception without that volition seeming to depend on any substance besides the soul.[15] Third, clear and distinct perceptions are either innate to the soul or derived from notions innate to the soul;

thus volitions caused by clear and distinct perceptions might seem to depend on the soul alone because the perceptions causing them depend on the soul.

But wouldn't a volition caused by a perception still be a passion? In order to answer this question, we need to look more carefully at his account of the relation between actions and passions. The account of the relation between actions and passions also plays a significant role in his explanation of the connection between the third step (the volition to pursue something, or the volition to avoid it) and the fourth step (the movement of the pineal gland) in the production of a fully free human action. Although many commentators would argue that Descartes thinks the connection between volitions and movements of the pineal gland is not causal but rather occasionalistic, I do not. Indeed I read Descartes as maintaining, with some important modifications, a fundamentally Aristotelian doctrine of causation. In the opening article of the *Passions*, he says:

> I note that whatever takes place or occurs is generally called by philosophers a passion with regard to the subject to which it happens and an action with regard to that which makes it happen. Thus, although the agent and the patient are often quite different, the action and the passion must always be a single thing which has these two names on account of the two different subjects to which it may be related. (AT XI 328; CSM I 328)

Descartes is here alluding to the Aristotelian doctrine of the identity of action and passion: an agent's action, for example, lifting an object, is one and the same change or movement as the patient's passion, for example, being lifted. If we think of lifting as the cause and being lifted as the effect, then this doctrine involves identifying the cause with the effect in the sense of claiming that they are one and the same change or movement. We might say they are one and the same event.

The standard reaction to this passage is to read Descartes as mentioning this doctrine, but not endorsing it.[16] Such an interpretation cannot be sustained, however, since in the second article of the *Passions* Descartes applies the doctrine to the action of the pineal gland on the soul: "Next I note that we are not aware of any subject which acts more directly upon our soul than the body to which it is joined. Consequently we should recognize that what is a passion in the soul is usually an action in the body" (AT XI 328; CSM I 328). Descartes is surely speaking for himself here. And he can derive his conclusion that the soul's passions are usually actions in the body only by assuming the truth of the Aristotelian doctrine of the identity of action and passion.[17] To be sure, Descartes's understanding of the doctrine differs in important ways from the Aristotelians'. First, the Aristotelians located the agent's action in the patient, so that, for example, the agent's lifting is located in the object being lifted. Descartes, in contrast, wants to locate the agent's action in the agent. So instead of saying that what is a passion in the soul is an action referred to the body, he says it is an action in the body. Since the passion in the soul is the same thing as an action in the body, it follows that Descartes thinks

there are modes belonging to two subjects at once.[18] Second, as noted by Étienne Gilson, Descartes rejects the Aristotelian understanding of action as the imposing of form and of passion as the reception of form.[19] This doctrine, since it applies to all actions and passions, would also apply to that class of volitions Descartes characterizes as terminating in the body (AT XI 343; CSM I 335, a18); that is, it would apply to the connection between the third and fourth steps of a fully free action. If we assume that his account of the soul's action on the body is parallel to his account of the body's action on the soul, it would follow that the volition—to use Descartes's example, the volition to walk—is the same thing as the movement in the subject that it acts on immediately, namely the pineal gland. It would not be the same thing as the bodily movement that is the object of the volition, in this example walking, which is in turn caused by the movement in the pineal gland. Descartes, however, does not elaborate on his account of the relation between volitions and their corresponding passions. And the fact that he suggests that the volition to walk terminates in walking does leave room for one to argue that the passion in the body that is the same as the volition to walk is walking. I myself don't see insurmountable problems with such an interpretation. Since it is reasonable to assert that a movement that is a passion with respect to the action that brings it about can itself be an action with respect to a passion that it brings about, I don't see why we couldn't legitimately infer by transitivity of identity that the first action in the chain is the same as the passion that terminates the chain. This is all the more reasonable if, as one can plausibly argue, on Descartes's account of motion the first action is simultaneous with the terminating passion.

We are now in a position to answer the question of whether volitions would be passions rather than actions if they are caused by perceptions. The answer, I think, is that they would be passions, but that is not inconsistent with their also being actions. Given his definition of action and passion, any passion brought about by the same subject in which it occurs will also be an action. And any volition brought about by a clear and distinct idea is presumably brought about by the soul, for our clear and distinct ideas are derived from notions innate to the soul. And a volition caused by a perception that is not clear and distinct might also be considered an action on the ground that it is brought about by the same subject or a mode of the same subject in which it occurs. Moreover, given his further claim that "names are always determined by whatever is most noble" (AT XI 343; CSM I 336, a19), we would appropriately refer to volitions as actions, even though they are also passions. This explanation has the further implication that those perceptions brought about by the soul should also be considered actions as well as passions. Descartes does say that our perceptions generally can be called passions: "The various perceptions or modes of knowledge present in us may be called its passions, in a general sense, for it is often not our soul which makes them such as they are, and the soul always receives them from the things that are represented by them" (AT XI 342; CSM I 335, a17). However, when he goes on to discuss those

perceptions caused by the soul, he explains why they are legitimately regarded as actions:

> When our soul applies itself to imagine something non-existent—as in thinking about an enchanted palace or a chimera—and also when it applies itself to consider something that is purely intelligible—for example, in considering its own nature—the perceptions it has of these things depend chiefly on the volition which makes it aware of them. That is why we usually regard these perceptions as actions rather than passions.[20] (AT XI 344; CSM I 336, a20)

In this section, I have explored issues arising from Descartes's account of fully free human actions. First, I have examined the relation between our clear and distinct idea of something as good and our volition to pursue it. Second, I have provided an analysis of Descartes's account of the relation between action and passion that explains how volitions can be caused by clear and distinct perceptions and yet still be considered actions.

2. The Passions' Influence on Behavior

In order to answer the question of where and how the passions can intervene in this sequence, it is necessary first to have at least a basic understanding of Descartes's definition of the passions, as well as some of the problems surrounding it. Descartes defines the passions of the soul as those perceptions, sensations, or emotions that are caused, maintained, and strengthened by some movement of the animal spirits and that we refer to the soul itself, as opposed to external bodies or to our own body (AT XI 349; CSM I 338–9, a27). When Descartes says that passions are perceptions, sensations, or emotions, he is not treating these categories as mutually exclusive. Instead, he means that one and the same passion can be at once a perception, a sensation, and an emotion (AT XI 350; CSM I 339, a28).[21] Thus there are five elements in his definition of the passions: (1) they are perceptions, (2) they are sensations, (3) they are emotions, (4) they are caused by some movement of the animal spirits, and (5) they are referred to the soul. Given our aim of trying to understand where and how the passions play a role in generating behavior, it will be useful to focus on the first element of this definition: that the passions are perceptions.

In defining the passions of the soul as perceptions, Descartes denies that they are perceptions in the sense of being plain knowledge. Instead, he is explicitly using the term 'perception' in a general sense that includes all the soul's thoughts that are not actions, that is, that are not (also) volitions. But he also goes on to say that the passions of the soul are confused and obscure perceptions, which suggests that in denying that the passions of the soul are plain knowledge, he is denying only that they are clear and distinct ideas, and not that they are ideas (AT XI 350; CSM I 339, a28).

One might well be troubled by the implications of saying that the passions of the soul are ideas. Descartes defines ideas as thoughts that are as if images of things

(AT VII 37; CSM II 25); that is, they are as if of things or they represent or exhibit things (AT VII 43–4; CSM II 30). But if representing something is essential to the Cartesian conception of what it is to be an idea, it might well seem false that the passions of the soul are ideas. While it is true that passions of the soul typically have objects in the sense of being directed toward something, and the ideas of those objects are as if images of them, we do not think of the passions themselves as being images of things, that is, as representing or being as if of something. So if I feel joy or sadness on hearing some news, that joy or sadness is directed toward an object, but neither the joy nor the sadness itself seems to be like an image of something in the way my perceptions of red or cold or shape are like images of things. Since we are not inclined to classify as ideas those thoughts that have objects only in the sense of being directed toward something, Descartes's suggestion that the passions of the soul are ideas will remain troubling unless he also thinks that they are in some way representational. But how could a passion like love or joy be representational?

An answer to this question is suggested by Descartes's assertion that the passions "almost always cause the goods they represent, as well as the evils, to appear much greater and more important than they are, thus moving us to pursue the former and flee from the latter with more ardour and zeal than is appropriate" (AT XI 431; CSM I 376–77, a138). In making such an assertion, he seems to be implying both that passions represent goods and evils and that they represent things as good or as evil.

Unfortunately, Descartes does not elaborate on this suggestion that the passions are representational. But it is a very interesting suggestion. It implies that passions are cognitive; that is, that they involve some sort of awareness of or representation of the world (even if that representation or awareness is inaccurate). It does not imply, however, that he thinks passions are not feelings. When he says that passions are sensations, he uses the French word *sentiments*, which is translated equally well as 'feelings.' So Descartes seems to think that the passions are both what we would call cognitive and affective.

What does Descartes have in mind in suggesting, first, that the passions represent goods and evils, and second, that they represent these goods and evils as greater than they are? To say that a particular passion such as love represents a good might be construed in a very weak sense to mean that love includes an idea of an object that is good. Descartes must mean something stronger, however, because of his account of how the will operates. We are moved to pursue or avoid something only because it is represented to us as being good or evil. Since Descartes thinks the passions incite the soul to will things (AT XI 359; CSM I 343, a40), he must think that they represent their objects as good or evil.

But what could it be for a passion to represent an object as good or evil? One possibility is that he thinks the passions represent objects as good or evil in the way our sensations represent things as being various ways. For example, he thinks our tactile sensation of fire represents it as being hot. What this comes to or perhaps, on the contrary, what it explains, according to Descartes, is that there seems to us to

be something in the fire resembling our sensation of heat. If we attribute to him a similar account of how the passions represent things as being certain ways, then his view would be that our sensation—our feeling—of love, for example, is or includes an idea of goodness that inclines us to judge that there is something in the loved object that resembles that idea of goodness.

While there are several passages that indicate that Descartes thinks the passions are themselves representational, there are other passages that suggest that Descartes thinks the passions themselves are effects of other representations or judgments that an object is good or evil rather than being representations themselves. So, for example, he says that "when we think of something as good with regard to us [à *notre égard*], that is, as beneficial to us, this makes us have love for it; and when we think of it as evil or harmful, this arouses hatred in us" (AT XI 374; CSM I 350, a56) and "[t]his same consideration of good and evil is the origin of all the other passions" (AT XI 375; CSM I 350, a57).[22] A little later, in arguing that there are two kinds of love and hatred, he asserts that we commonly call something good or evil if our internal senses or our reason makes us judge it suitable or unsuitable to our nature (AT XI 391–2; CSM I 358, a85). In contrast, if our external senses represent something as suitable or unsuitable to our nature, we call it beautiful or ugly. This distinction gives rise to two kinds of love and hatred: love of the good and love of the beautiful; hatred of the bad and hatred of the ugly.

These claims are important for several reasons. First, they suggest that Descartes thinks that the notion of representing something as good is not a fundamental notion, but instead should be understood in terms of our being led to judge by our internal senses or reason that something is suitable to our nature. (They do not suggest, however, that Descartes thinks we should analyze the notion of 'representing as' solely in terms of the notion of 'judging that.' He seems to think that we are influenced or determined to judge that something is suitable to our nature because it is represented by our senses or by our reason as suitable to our nature.) Second, they provide evidence that he thinks it is not the passions themselves that represent things as suitable or unsuitable to our nature but other modes of thought, such as sensations, that bring about the passions.

There are other representations and judgments that cause passions. These include representations of objects (or people) as rare and worthy of being accorded great attention, as great or as small, as likely or not to be obtained, as depending on us or not, as belonging to us or others, as being caused by us or others, and as deserving of good or evil. So Descartes says that wonder is caused "first, as an impression in the brain, which represents the object as something unusual and consequently worthy of special consideration" (AT XI 380–1; CSM I 353, a70); "wonder is joined to either esteem or contempt, depending on whether we wonder at the value of an object or at its insignificance" (AT XI 373–4; CSM I 350, a54); "what represents to us that [the likelihood of obtaining what we desire] is great excites hope, and what represents to us that [the likelihood of obtaining what we desire] is small excites apprehension"

(AT XI 375; CSM I 350–1, a58);[23] "the consideration of a present good excites joy in us, that of evil sadness, when it is a good or evil which is represented to us as belonging to us" (AT XI 376; CSM I 351, a61); "when we deem other men as deserving of [good or evil represented as belonging to them], that excites no other passion but joy" (AT XI 377; CSM I 351, a62); and "[a] good done by ourselves gives us an internal satisfaction, which is the sweetest of all the passions, whereas an evil produces repentance, which is the most bitter" (AT XI 377; CSM I 351–2, a63).

In this context, it is important to note that in a number of examples Descartes speaks of the brain impressions themselves as representing things to the soul. For example, he says of wonder that "[it] has two causes: first, an impression in the brain, which represents the object as something unusual and consequently worthy of special consideration; and secondly, a movement of the spirits, which the impression disposes both to flow with great force to the place in the brain where it is located so as to strengthen and preserve it there" (AT XI 380–1; CSM I 353, a70). He says of joy that it "is a pleasant emotion which the soul has when it enjoys a good which impressions in the brain represent to it as its own" (AT XI 396–7; CSM I 360–1, a91).

The main lesson I would like to draw from the preceding discussion is this: Descartes sometimes talks as if the passions themselves are representational, but other times talks as if they are the result of something else that is representational—a sensation, a thought, a judgment, or even a brain impression. There is no inconsistency in maintaining both that the passions are representational and that they follow from other representational states, but one might argue on grounds of conceptual economy (do not multiply representations beyond necessity) that if the passions follow from representational states, there is no need for them to be representational as well.

Before turning to Descartes's account of where and how the passions can intervene in the production of behavior, it will also be useful to look more closely at his account of two of the sorts of causal sequences by which passions are produced. Descartes's physiology is wildly speculative and can usually be ignored because the philosophical issues remain the same when his physiological mistakes are corrected. But for our present purposes, the details of his physiological theory do help illuminate his philosophical views.

Descartes lists four distinct types of first causes of the passions: (1) objects that move the senses (the most common first cause of the passions); (2) the action of the soul in deciding to think of some object; (3) impressions haphazardly encountered in the brain; and (4) the temperament of the body alone (AT XI 371; CSM I 349, a51). There are typically several intermediate steps between a given first cause and the movements of the animal spirits that are the last and most proximate cause of the passions.

He uses the example of how our seeing an animal moving toward us can excite passions in the soul to illustrate the complete sequence of the type whose first cause

is an object that moves the senses. First, an image is formed on the pineal gland that, by acting immediately on the soul, causes us to see the animal's shape. Then,

> [i]f, in addition, this shape is very strange and terrifying—that is, if it has a close relation to things which have previously been harmful to the body—this arouses the passion of apprehension in the soul, and then that of courage or perhaps fear and terror, depending on the particular temperament of the body or the strength of the soul, and upon whether we have protected ourselves previously by defence or by flight against the harmful things to which the present impression is related. Thus in certain persons these factors dispose their brain in such a way that some of the spirits from the image formed on the gland proceed from there to the nerves which serve to turn the back and move the legs in order to flee. The rest of the spirits go to nerves which expand or constrict the orifices of the heart, or else to nerves which agitate other parts of the body from which blood is sent to the heart, so that the blood is rarefied in a different manner from usual and spirits are sent to the brain which are adapted for maintaining and strengthening the passion of fear—that is, for holding open or re-opening the pores of the brain which direct the spirits into these same nerves. For merely by entering into these pores they produce in the gland a particular movement which is ordained by nature to make the soul feel this passion. (AT XI 356–7; CSM I 342, a36)

This example is not straightforward because it involves two passions, that of apprehension and that of fear, and because the accounts of their origin are radically different. He says that if the animal's shape bears a resemblance to that of things that have previously been harmful to the body, this will excite the passion of apprehension. But in the case of fear, he tells a longer story involving the motion of the animal spirits. There are two possible explanations: (1) he has given a complete account of the production of apprehension, which would imply that he thinks it is produced in a way fundamentally different from fear, or (2) he has presented an abbreviated account of the production of apprehension in order to focus on fear, which might suggest that he thinks that the production of apprehension and fear involves fundamentally the same sort of causal sequence. Since it is part of the definition of the passions that they are caused, strengthened, and maintained by motions of the animal spirits, it seems reasonable to conclude that the latter explanation is correct. Thus to simplify matters, I will focus on the sequence of steps involved in the production of fear.

Holding fixed the relevant background conditions (the temperament of the body, the strength of the soul, and previous behavior), the causal sequence subsequent to the first cause by which a passion is produced can be schematized into four steps: pineal impression, movement of the animal spirits into the pores, pineal movement, and finally passion. There are three salient features of this basic sequence. First, the second step, the movement of the animal spirits into the pores, generates

a self-sustaining cycle in which the spirits flow from the brain to the heart or other organs and then new spirits flow back to the brain to keep the pores open. Second, there are two distinct points at which the body acts on the mind, producing two distinct kind of thoughts. The initial pineal impression causes a sensation of the external object, and the subsequent pineal movement causes the passion. Third, it is the movement of the spirits into the pores that causes the pineal movement that in turn causes the passion.

In providing an example of a passion whose first cause is of the second type, namely, an action of the soul in deciding to think about some object, Descartes offers an account of the sequence of steps subsequent to the formation of the brain impression that differs in two important ways from the basic sequence just outlined:

> These observations, and many others that would take too long to report, have led me to conclude that when the understanding thinks of some object of love, this thought forms an impression in the brain which directs the animal spirits through the nerves of the sixth pair to the muscles surrounding the intestines and stomach, where they act in such a way that the alimentary juices (which are changing into new blood) flow rapidly to the heart without stopping in the liver. Driven there with greater force than the blood from other parts of the body, these juices enter the heart in greater abundance and produce a stronger heat there because they are coarser than the blood which has already been rarefied many times as it passes again and again through the heart. As a result the spirits sent by the heart to the brain have parts which are coarser and more agitated than usual; and as they strengthen the impression formed by the first thought of the loved object, these spirits compel the soul to dwell upon this thought. This is what the passion of love consists in. (AT XI 403–4; CSM I 364, a102)

The first difference is that there is no mention of a pineal movement distinct from the original pineal impression. The flow of the spirits maintains and strengthens that original pineal impression.[24] The second difference is that that pineal impression is said to compel the soul to dwell on the very same thought that caused it, and this is what the passion is said to consist in. Thus there apparently is only one type of thought in the sequence. Indeed, Descartes seems to hold that it is numerically the same thought that generates a cycle that has the effect of causing it to continue in existence. So we can plausibly say that in this sequence, the passion is a self-sustaining representation.

One important feature these two sequences have in common is that the passion persists and is strengthened because the pineal impression that produces it is self-sustaining. But when the initial cause is an external object, the passion itself is not described as being a cause of the self-sustaining brain impression, but only as being an effect of it. Therefore, there are not good textual grounds for supposing that

the passion in the first sequence is a self-sustaining representation. However, if the self-sustaining brain impression is representational (as in the discussion of wonder quoted earlier), then another common feature is that in both sequences there is a self-sustaining representation.

The main lesson I want to draw from this discussion is that Descartes thinks that passions are maintained and strengthened by a self-sustaining brain impression. Moreover, there is reason to believe that he thinks that self-sustaining representations play a crucial role in the persistence of passions—either because there is a thought that initiates the cycle by which the brain impression is sustained or because the brain impression is itself a representation.

Let me turn now to Descartes's account of where and how the passions can intervene in this sequence leading to bodily action. One well-known passage from the *Passions*, article 47, can readily be taken to suggest that the passions cannot intervene in the sequence at all.

> All the conflicts usually supposed to occur between the lower part of the soul, which we call 'sensitive,' and the higher or 'rational' part of the soul—or between the natural appetites and the will—consist simply in the opposition between the movements which the body (by means of its spirits) and the soul (by means of its will) tend to produce at the same time in the gland. For there is within us but one soul, and this soul has within it no diversity of parts: it is at once sensitive and rational too, and all its appetites are volitions. It is an error to identify the different functions of the soul with persons who play different, usually mutually opposed roles—an error which arises simply from our failure to distinguish properly the functions of the soul from those of the body. It is to the body alone that we should attribute everything that can be observed in us to oppose our reason. (AT XI 364–5; CSM I 345–6)

Since the passions are taken to be natural appetites by Descartes's Aristotelian opponents, one natural way to read this passage is as asserting that there can be no opposition between the will and the passions, but only between the will and the animal spirits. The only impediment to rational and hence fully free action can occur if the animal spirits intervene at the step where the volition to pursue or to avoid moves the pineal gland and pushes the pineal gland in another direction because its impulse is stronger than the will's impulse.

However, this natural reading does not capture the full complexity of Descartes's views, and in fact he does think there can be opposition within the soul itself. The view that Descartes intends to reject is that there are two distinct powers in the soul that are the source of this opposition. So later in article 47, he tries to explain "what has given people occasion to imagine two powers within [the soul] which struggle against one another." As we will see, he allows opposition in the soul, provided that the source of opposition to reason is not in the soul but rather in the body.

To understand Descartes's account of where the passions intervene in the sequence, the following passage from article 47 requires careful examination.

> Now we may distinguish two kinds of movement produced in the gland by the spirits. Movements of the first kind represent to the soul the objects which stimulate the senses, or the impressions occurring in the brain; and these have no influence on the will. Movements of the second kind, which do have an influence on the will, cause the passions or the bodily movements which accompany the passions. As to the first, although they often hinder the actions of the soul, or are hindered by them, yet since they are not directly opposed to these actions, we observe no conflict between them. We observe conflict only between movements of the second kind and the volitions which oppose them—for example, between the force with which the spirits push the gland so as to cause the soul to desire something, and the force with which the soul, by its volition to avoid this thing, pushes the gland in a contrary direction. (AT XI 365; CSM I 346)

The key to deciphering this passage, I believe, lies in the distinction between the input and the output sides of a volition. The input side has to do with how a volition comes about. The output side concerns the tendency of a volition to act on something to bring about various effects. I believe that when Descartes distinguishes between the two kinds of movements in the pineal gland caused by the animal spirits—those that make no effort on the will ("*ne font aucun effort sur la volonté*") and those that do—he is distinguishing between movements that "make an effort on" the output side of a volition and those that do not.[25] We can be sure of this because he says that the sorts of pineal movement that do not make an effort on the will (pineal movements that represent to the soul objects that move the senses or impressions that are met within the brain) can prevent the actions of the soul. I take him to mean by this assertion that pineal movements that do not "make an effort on" the will can still prevent volitions from occurring. In other words, they can have an impact on the will on the input side. Once we see that something that does not "make an effort on" the will can still have an impact on the will on its input side, we can resist the temptation to conclude that Descartes thinks that the passions do not intervene anywhere in the sequence leading to bodily action.

It does seem fair to conclude from this passage that Descartes thinks it is not the passions themselves but rather the pineal movements that cause them that directly affect our volitions to pursue or to avoid on the output side. It is in this respect that he sees himself as differing from the Aristotelians, who, in regarding the passions as natural appetites, view them as another power in the soul in addition to the will that is a direct cause of bodily motions. But it would be a mistake to read Descartes as also implying that the passions themselves cannot affect the will on the input side either.

Descartes himself is not always as perspicuous about this point as one might like. In article 46 he says that when anger makes the hand rise in order to strike

and fear incites the legs to flee, the will can stop them. This makes it sound as if he thinks the passions themselves are another direct cause of pineal bodily motions in addition to the will. But this article has to be read in light of the explanation that follows in article 47, where he makes it clear that it is not the passion itself but rather the pineal movement causing the passion that, in virtue of being an alternative source of bodily movement, can oppose our volitions to pursue or avoid on their output side.[26]

In articles 48 and 49, Descartes explains how the passions can intervene in the sequence leading up to a volition to pursue or to avoid. He asserts in article 49 that there can be opposition between our firm and determinate judgments regarding good and evil and our present passions. And in article 48 he explains that the strongest souls are ones in which the will can easily conquer the passions and stop the accompanying movements of the body. The proper weapons of a strong soul, he tells us, are these firm and determinate judgments that the will has resolved to follow in conducting the actions of its life.

It is important to distinguish between conquering the passions and stopping the accompanying movements of the body. Stopping the accompanying movements of the body, we have already seen, has to do with the output side of our volitions to pursue or to avoid overpowering the animal spirits for control of the pineal gland. Conquering the passions, in contrast, has to do with the input side of our volitions to pursue or avoid—when we conquer our passions, our volitions to pursue or to avoid are in accordance with our firm and determinate judgments rather than our present passions. This contrast can be captured by drawing a distinction between input and output conceptions of strength of will. A will that is strong on the output side is able to overcome the obstacles to implementing a given volition. A will that is strong on the input side is able to resist certain sorts of influences in willing this rather than that.

So Descartes thinks that the passions can intervene between our judgment that something is good (or evil) and our volition to pursue (or avoid) that thing. They can thus interfere with the output side of judgments and influence the input side of our volitions to pursue or avoid. We can infer, on the basis of the discussion in the first section, that if the judgment is not caused by a clear and distinct idea, then even while we are attending to that idea, a passion could cause in us a volition to pursue or avoid that thing that is contrary to our judgment. But if the judgment is caused by a clear and distinct idea, then a passion could cause a volition in us contrary to our judgment only if we are first distracted from paying attention to that clear and distinct idea.

Descartes's talk of resolving or deciding to follow such judgments suggests that our volitions to pursue or to avoid are not brought about directly by the judgments themselves, but rather by our resolutions to follow them. This complicates the story, since a resolution or decision would appear to involve still another act of will. A strong soul is one that makes certain firm and determinate judgments, resolves to

follow those judgments, and then wills to pursue or avoid in accordance with those resolutions.

A soul's weakness is measured by how few resolutions it makes to follow such judgments or by how often it follows its present passions when it wills to pursue or to avoid things instead of the resolutions it has made. Descartes's talk of strong and weak souls would suggest that when a soul follows its present passion rather than its resolution to act in accordance with its firm and determinate judgments, its resolution has been overpowered by its present passion. However, in characterizing the weakest souls, those that fail to make any resolutions to follow firm and determinate judgments, he describes them as allowing themselves to be carried away by present passions. This suggests that such souls are not overpowered by their present passions. Instead, by an act of omission the soul allows passions to determine its volitions to pursue or to avoid. These two cases are importantly different, more so than Descartes acknowledges. A soul that resolves to follow its firm and determinate judgments but fails to do so because it is overpowered by the passions is appropriately described as weak. A soul that does not even make such a resolution is more aptly described as lazy, because its strength is never tested.

Descartes also asserts in article 48 that there can be opposition between present passions, and he gives as an example fear and ambition, which he says can agitate the will in different ways. It is natural to read Descartes as implying here that the passions agitate the will in opposing ways at the same time. Now later in article 144 Descartes asserts that the "passions cannot lead us to perform any action except by means of the desire they produce." This implies that fear and ambition can agitate the soul in opposing ways at the same time only if the soul has opposing desires at the same time—although in the *Principles* (AT VIIIA 17; CSM I 204) he characterizes desire as a mode of willing, his official position in the *Passions* is that desire is one of the six primitive passions (AT XI 374–5; CSM I 350, a57). However, to suppose that the soul has opposing desires at the same time does not easily square with his explanation in article 47 of why people imagine two powers in the soul that struggle against each other. There he says that motions of the animal spirits can fluctuate so that the soul feels driven almost at the same time to desire and not to desire the same thing. This remark seems to imply that we cannot desire and not desire the same thing at the same time; otherwise, there would be in the soul the kind of opposition between powers that Descartes wants to reject. So if Descartes is to be consistent, either he does not mean to imply in article 48 that fear and ambition can agitate the soul in opposing ways at the same time or he does not mean to imply in article 47 that we cannot have opposing desires at the same time.

I am inclined to think that Descartes does not mean to imply in article 47 that we cannot have opposing desires at the same time. Instead I think he is making a more subtle point. He is trying to explain how we can come to form the mistaken

belief that there are two powers in the soul that are in opposition. We can form this belief, he says, if in trying to eliminate a passion—which we cannot do directly by simply willing that the passion cease (AT XI 362–3; CSM I 345, a45)—we successively attend to different ideas that tend to eliminate that passion. If one of these ideas is stronger than the animal spirits that tend to cause the pineal movement that produces the passion, then the passion will disappear, but it might immediately reappear if the next idea we attend to is weaker than the animal spirits. In this way, successive opposing desires that appear to be simultaneous can arise. A significant feature of the illusion, and here I am filling in for Descartes, is that the desires appear to be caused by something in the soul, because they are caused by our acts of attention. This element of the illusion is crucial; otherwise, I don't see how we would ever come to form the belief that there are two powers in the soul that are in opposition.

Descartes does believe that we cannot will opposite things at the same time, although we can will opposite things successively, which does have the implication that we cannot simultaneously have opposing desires caused by the soul. But it does not follow from this that we can never have opposing desires at the same time. It would, on Descartes's theory, be impossible for us to have opposing desires at the same time only if the pineal gland cannot move in more than one way at the same time. As far as I know, Descartes does not rule this out. And it seems that he could not rule it out, because the mere fact that we can see and hear at the same time seems to entail that the pineal gland must have different movements at the same time.[27] It goes without saying that the pineal gland cannot have incompatible motions at the same time, but simultaneous opposing desires could, it seems, be produced by simultaneous pineal movements that are not incompatible.[28]

In describing the case when the passions of fear and ambition agitate the will in different ways, Descartes goes on to describe the will as obeying now one passion and now the other. And he describes the passions as dictating to the will. Talk of the will obeying dictates goes back at least to Augustine.[29] And Aquinas makes a fundamental distinction between acts commanded by the will and acts elicited by the will.[30] Since Descartes does not elaborate on these remarks, it is not entirely clear what to make of them. We don't normally think that when we do what someone orders us to do, the person giving us the order caused us to do it. In ordering us to do something, at best the person might have given us a sufficient reason to do it, but that is not the same as causing us to do it. However, at least some of the acts Aquinas describes as being commanded by the will—for example, walking—would seem to be caused by the will. So I don't think there is sufficient evidence to infer from Descartes's talk of the will obeying dictates of the passions that he thinks such acts of will are not caused by the passions.

Descartes's talk of the will obeying the passions provides important confirmation that he sees passions as having an influence on the input side of our volitions to

pursue or avoid. The passions can also intervene at the input side of our judgments, as Descartes makes clear in article 49:

> Most [people] have some determinate judgments which they follow in regulating some of their actions. Often these judgments are false and based on passions by which the will has previously allowed itself to be conquered or led astray; but because the will continues to follow them when the passion which caused them is absent, they may be considered its proper weapons, and we may judge souls to be stronger or weaker according to their ability to follow these judgments more or less closely and resist the present passions which are opposed to them. (AT XI 368; CSM I 347, a49)

In describing firm and determinate judgments regarding good and evil as being "based on passions by which the will has previously allowed itself to be conquered or led astray," Descartes suggests that the passions provide a reason for the judgment. Presumably, passions provide reasons for judgments in virtue of representing things as good or as evil. It is clear from our earlier discussion of Descartes's account of the relation between clear and distinct ideas and judgments that he thinks reasons for judgments can also be the causes of those judgments. So I think Descartes would not object to saying that the passion causes the judgment. But in saying that the will has allowed itself to be conquered or seduced, Descartes suggests that the will could have prevented the passion from causing the judgment. It could do so either by employing the strategy of distraction or simply by withholding judgment. The passions are obscure ideas, and Descartes seems to think that we can withhold judgment in the face of any present idea that is not clear and distinct. Of course, a passion could conquer or seduce our judgment when we have clear and distinct ideas on the matter only by distracting us from paying attention to those ideas.

There still remains one other way in which the passions can intervene in the sequence leading to action. They can interfere in the process of obtaining clear ideas about what to pursue or to avoid. It can require considerable effort and attention to obtain clear and distinct ideas, and our passions can distract us from making such an effort—that is, they can lead us not to form the volition to form clear and distinct ideas, or they can prevent us from succeeding in that effort.

In summary, I have argued that Descartes thinks the passions do not interfere with the output side of our volitions to pursue or to avoid. Only the movements of the pineal gland that cause the passions can oppose our volitions to purse or avoid on the output side. However, the passions can have an influence on the input side of our volitions to pursue or avoid in the absence of judgments regarding good and evil or in opposition to such judgments, in which case they are interfering with the output side of those judgments. They can also influence the input side of our judgments regarding good and evil.

Let me conclude this section by pointing out a potential tension in Descartes's theory of the will. Descartes maintains that all of our volitions are actions because

they come directly from the soul and seem to depend only on the soul (AT XI 342; CSM I 335, a17). But volitions—whether judgments or volitions to pursue or avoid—incited by passions whose first cause is an object that moves the senses, an impression haphazardly encountered in the brain, or the temperament of the body alone would seem not to depend on the soul alone, at least on one plausible understanding of what it is to depend on something. The principal source of such volitions would seem to be the thing outside the soul that causes the passion that incites them, so such volitions do not causally depend only or even primarily on the soul. Rather, such volitions depend only on the soul only in the sense that the soul itself or one of its modes is their immediate cause.

3. The Effect of the Passions on Freedom

Does Descartes think that any of the various ways the passions interact with our will result in a loss of freedom or an enhancement of our freedom? An obvious partial answer to this question is that since volitions founded on the passions do not proceed from clear and distinct ideas that compel us to act as we do but rather from obscure ideas, they are less than fully free, and so our freedom has been diminished. Our volitions to pursue or shun are often not fully free even when they are not founded on the passions. The reason for this is that in everyday life, we often are not in a position to form clear and distinct ideas but instead must rely on what is merely probable (AT VI 25; CSM I 123).

The more interesting and difficult question is whether the passions can diminish our freedom to the point that we should be described as unfree. In approaching this aspect of the question, it is useful to distinguish two distinct conceptions of freedom—an output conception and an input conception. According to the output or Humean conception of free will, liberty is the "power of acting or not acting according to the determinations of the will."[31] In other words, our will is free so long as our volitions to pursue or to avoid determine our bodily actions. I will refer to this kind of freedom as freedom of action. According to the input conception, our will is free if our volitions are up to us. That is, our will is free so long as we determine our volitions. I will refer to this kind of freedom as freedom of will.

On both of these conceptions, freedom is identified with the absence of external constraint. According to the output conception, our will is not free if our volitions to pursue or to avoid do not determine our bodily actions. According to the input conception, our will is not free if we are constrained by something external to us in making judgments and in forming volitions to pursue or avoid something.

3.1. The Passions and Freedom of Action

I argued in the second section that Descartes holds that the movements of the pineal gland that cause our passions, rather than the passions themselves, can move the animal spirits in such a way as to oppose the output side of our volitions to pursue

and avoid. There is reason to think that Descartes would hold that we do not act freely when those motions of the animal spirits overpower the volition and determine the subsequent movement of the pineal gland. The production of such bodily movements not caused by volitions seems more akin to movements that Descartes surely would say are not voluntary—for example, the bodily movements of animals that are produced mechanistically (AT XI 341–2; CSM I 335, a16) and other effects that the passions produce in the body, such as fainting or flushing (AT XI 411–28; CSM I 367–75, a112–35)—than to bodily actions resulting from our choices.

If this is right, then Descartes is committed to the view that weakness of will on the output side can result in bodily actions that are not free. Here is a point at which Descartes has a much more straightforward resolution to a problem than is provided by his opponents, who locate the opposing powers in the soul itself. Aristotle maintains that we are responsible when we are moved by either reason or natural appetite.[32] But Plato seems to make the contrary suggestion that we are not free when moved by spirit or appetite in opposition to reason.[33] Descartes can plausibly maintain that since the body is part of us only insofar as we are human beings but is really distinct from us insofar as we are minds or souls, bodily actions having their source in the body rather than the soul are not free. But when the source of the bodily movement opposing reason is placed in the soul, as it is by both Plato and Aristotle, it is a much more difficult question whether that bodily movement is up to us and hence free.

Descartes does not escape Plato's and Aristotle's problem completely, however. We also saw in the second section that Descartes thinks some passions, such as love, are self-sustaining thoughts. He describes such passions as beginning with a thought that makes an impression on the brain that in turn generates a flow of spirits that strengthens the original brain impression and compels us to dwell on that thought. The flow of spirits caused by the brain impression could presumably oppose and overpower volitions to pursue or shun. What should we say about a bodily action brought about in this fashion? On the one hand, it does seem up to us in the sense that its first cause was a decision on our part to think about a particular object. On the other hand, once the cycle gets going and the brain impression is strengthened, someone with a weak soul might find herself in a situation where she cannot prevent herself from thinking about the object or prevent the accompanying bodily motions that her will opposes.

3.2. The Passions and Freedom of Will

It might seem straightforward that Descartes thinks that the passions cannot diminish our freedom of will to the point of unfreedom. There is considerable evidence that he thinks that all acts of will, whether judgments or choices, are free. He asserts that the will is by its nature so free that it can never be constrained (AT XI 359; CSM I 343, a41) and that it is self-evident that the will is free (AT VIIIA 19; CSM I 205–6). He identifies the soul's actions with volitions because volitions come directly from

our soul and seem to depend on it alone (AT XI 342; CSM I 335, a17), which implies, if freedom of will amounts to its not being compelled by an external force, that all our volitions are by their nature free. He also explicitly identifies the free with the voluntary (AT VII 191; CSM II 134: AT IV 116; CSMK 234).

Moreover, Descartes identifies the lowest form of freedom with the liberty of indifference, defined as not being impelled one way rather than another by any perception of truth or goodness:

> I would like you to notice that 'indifference' in this context seems to me strictly to mean that state of the will when it is not impelled one way rather than another by any perception of truth or goodness. This is the sense in which I took it when I said that the lowest degree of freedom is that by which we determine ourselves to things to which we are indifferent. (AT IV 173; CSMK 244–5)

> What is more, this *indifference* does not merely apply to cases where the intellect is wholly ignorant, but extends in general to every case where the intellect does not have sufficiently clear knowledge at the time when the will deliberates. For although probable conjectures may pull me in one direction, the mere knowledge that they are simply conjectures, and not certain and indubitable reasons, is itself quite enough to push my assent the other way. (AT VII 58–9; CSM II 40–1)

Cases in which our judgments concerning good and evil and our volitions to pursue and avoid are founded on passions would seem to satisfy Descartes's criterion for indifference, since in those cases the will is not impelled by a clear and distinct idea. Even though Descartes characterizes indifference as the lowest kind of freedom, still it is a kind of freedom.

There are, however, two important passages in which Descartes strongly implies that our passions have the potential to diminish our freedom to the point that we are unfree. First, in article 48 he says that when fear represents death as an extreme evil that can be avoided only by flight, while ambition on the other hand depicts the dishonor of flight as an evil worse than death, these two passions jostle the will in opposite ways; and since the will obeys first the one and then the other, it is continually opposed to itself, and so it renders the soul enslaved and miserable (AT XI 367; CSM I 347, a48). Christopher Gilbert has argued that in this passage, Descartes is not claiming that our volitions are not free.[34] Instead Descartes is claiming only that the soul is not free. On Gilbert's interpretation, these volitions remain free even though they oppose one another (not, of course, simultaneously but successively), but their opposition deprives the soul of its freedom of action.

I myself have been inclined to read this passage in another way. I have read Descartes as implying not that the crucial element generating unfreedom is that the will is in opposition to itself, but rather that our will is obeying present passions

instead of firm and determinate judgments. On my reading, the loss of freedom is a loss of freedom of will. I don't think there is decisive evidence in favor of one of these interpretations. The most important piece of evidence in support of my reading is provided by the second passage. In a letter to Princess Elizabeth, Descartes says that certain remedies against excessive passions prevent the soul from losing its free judgment (AT IV 411; CSMK 287). If he is willing to assert that passions can result in judgments that are not free, then I think he should be equally willing to allow that passions can result in volitions to pursue or avoid that are not free.

What account of freedom might underlie such claims that passions can render our judgments and volitions to pursue or avoid unfree? Here I must resort to speculation, for Descartes does not elaborate on the theory of freedom underlying these two crucial passages. One possible explanation is that Descartes identifies the self strictly with reason and believes that only volitions brought about by the self are free, so that a volition arising from passions whose first cause is outside the soul is not free.

If I am right in asserting that Descartes thinks there are some volitions caused by passions that are not free, he would thereby be committed to the position that weakness of will on the input side can result in volitions that are not free. This puts him in opposition to Aquinas. Aquinas also thinks that passions can operate through the will, that they can influence our action by serving as the basis for our acts of will. But Aquinas argues that nevertheless such actions are always more voluntary than involuntary, even when they contain an element of involuntariness, as when we do something out of fear, and sometimes completely voluntary, as when we do something out of concupiscence.[35] One hypothesis to explain this difference is that Descartes and Aquinas agree on the conditions of freedom of will—that the will be moved by reason—but they differ on their accounts of what can move the will. Aquinas thinks our volitions to pursue or avoid (which he calls use) always follow the judgment of reason, whereas Descartes appears to be allowing that our present passions can overpower our judgment in determining our volitions. On this hypothesis, in other words, the underlying difference between Aquinas and Descartes is that for Aquinas, will is reasoned appetite—whenever it moves it is moved by reason—but for Descartes, our volitions to pursue or avoid need not be moved by our judgments.

Another related difference concerns their accounts of judgment. For Aquinas, judgment belongs to reason, but for Descartes, judgment is itself an act of will. Descartes's understanding of judgment as an act of will has two important implications. First, it implies that our will can be in conflict with itself when our volitions to pursue or to avoid do not follow our judgments. Second, our judgments may arise from reason, but they need not, as, for example, when we are conquered or seduced by the passions. So one might even want to conclude that Descartes thinks that sometimes even when we act in accordance with our firm and determinate judgments we are not free—when those judgments result from a passion whose ultimate

origin is not our reason. In other words, it is not sufficient for freedom of will that we have strength of will on the input side with respect to our volitions to pursue or avoid; it is also necessary that we have strength of will on the input side with respect to our judgments regarding good and evil.

To suggest that Descartes holds that weakness of will results in unfreedom is not to suggest that he thinks we are never morally responsible for the resulting behavior. On the contrary, the individuals he describes as having the weakest souls—those who do not resolve to follow their firm and determinate judgments—seem to be responsible for their lack of freedom. However, I want to say that these individuals are responsible precisely because they are more appropriately described as lazy rather than weak. I am very sympathetic to the view that in cases of genuine weakness (that is, those cases in which our will is overpowered by the passions), we are absolved of moral responsibility.

Descartes himself, however, is extremely optimistic about the effectiveness of using behavior modification techniques to manipulate the connections in the causal sequences that produce the passions in such a way that even weak souls have absolute control over which passions they have (AT XI 368–70; CSM I 348, a50). Now if we have control over which passions we have but fail to exercise this control, it might seem to follow that we are morally responsible for any behavior caused by the passions even if such behavior is unfree. In other words, if we can easily free ourselves from the passions' control over our judgments, or our volitions to pursue or avoid, but fail take the steps required to free ourselves, then we are responsible for our own lack of freedom.

I would like to make two points about this argument. First, we might still be thought to lack moral responsibility if the explanation for why we don't take the required steps to determine which passions we have is that our judgment is conquered on either the input or the output side by a passion that represents taking these steps as a bad thing to do. Descartes does recognize that it is not entirely up to us whether we make use of the behavior modification techniques, for he says that "the weakest souls could acquire absolute mastery over all their passions if we employed sufficient ingenuity in training and guiding them" (AT XI 370; CSM I 348, a50).

Second, the fact that we can and do determine which passions we have does not yet make us free. It would seem that a further condition is required: the process by which we determine our passions must itself be controlled by reason.

If I am right that Descartes thinks the passions can result in judgments and volitions to pursue or avoid that are not free, then how does one explain his account of free will in the *Fourth Meditation*? He says there that we are not using our free will correctly if we make a judgment when we do not perceive the truth with sufficient clarity and distinctness (AT VII 59–60; CSM II 41). Instead, we can refrain from making any judgment. His point seems to be that when the will is indifferent because it is not compelled by a clear and distinct perception, its judgments are still

free (even if less free than the judgments it makes when compelled by clear and distinct perceptions) since it can always refrain from making them.

There are various hypotheses that might account for Descartes's apparently implying in the *Fourth Meditation* that our judgments are free according to the input conception and in the *Passions* that they might not be free. First, he might have changed his mind between the *Meditations* and the *Passions*, coming to believe that our obscure and confused perceptions do result in judgments that are not free. Second, perhaps he believed that the passions differ in an important way from other sensations. He seems to think that it does not seem to require much strength of will, if any, to refrain from making judgments about the nature of the external world on the basis of our sensations. But he seems to think it can require great strength of will to resist the passions in making judgments about what is good or evil. Moreover, once a sensation is defeated by a clear and distinct idea of the intellect, it tends to remain defeated. But defeated passions seem to pose a continual threat to our judgment. Not only are they more likely to lead us to change our judgment when we are not attending to arguments that are the foundation of our clear and distinct ideas, but a passion defeated on the input side of a judgment concerning good and evil can still be victorious in competition with the output side of that same judgment in determining our volitions to pursue or to avoid. Third, Descartes holds that we can refrain from making judgments that involve only the acquisition of knowledge and do not pertain to action but that the circumstances of our life prevent us from refraining from making judgments that do pertain to action. So we will often find ourselves forced to make judgments pertaining to action when we lack clear and distinct perceptions of the good, and such judgments will therefore be less free, perhaps even to the extent that they can be said to be unfree.

3.3. Generosity, Virtue, and Freedom

The passions' effects on our freedom are not always deleterious. The passion of generosity plays an extremely significant role in securing our freedom. The passion of generosity enables us to acquire the virtue of generosity, which Descartes describes as the key to all the other virtues and a general remedy for all the disorders of the passions (AT XI 453–4; CSM I 387–8, a161). How does the passion of generosity enable us to acquire the virtue of generosity and how does the virtue of generosity enhance our freedom? Descartes defines generosity as having two parts: one is knowing that nothing truly belongs to us except the free disposition of our volitions and that we can be praised or blamed only for using it well or badly; the other is feeling in ourselves a firm and constant resolution to use it well (AT XI 445–6; CSM I 384, a153). He claims that we can excite the passion of generosity "if we occupy ourselves frequently in considering the nature of free will and the many advantages which proceed from a firm resolution to make good use of it—while also considering, on the other hand, the many vain and useless cares which trouble ambitious people" (AT XI 453–4; CSM I 388, a161).[36]

If we understand the passion of generosity as a self-sustaining representation of the sort I described in the second section, then it is readily apparent once we understand Descartes's account of virtue how the passion of generosity becomes the virtue of generosity. Descartes defines virtues as habits in the soul that dispose it to have certain thoughts. When these thoughts are produced by the soul alone, they are actions. When they are also strengthened by the movements of the animal spirits, they are "actions of virtue and at the same time passions of the soul" (AT XI 453; CSM I 387–8, a161). This suggests that Descartes thinks that a self-sustaining thought such as generosity is not only a passion but also a habit to continue to have that same thought, and in that case it is the virtue as well.

How does the virtue of generosity enhance our freedom? I propose the following explanation. The second aspect of generosity is feeling within oneself a firm and constant resolution never to lack the volition to undertake and execute all the things one judges to be best. I believe Descartes's point in saying that the thought can produce the habit is that feeling such a firm and constant resolution can help maintain the resolution. Thus I take him to be suggesting that we should understand this firm and constant resolution not merely as the volition to act in accordance with our judgments, but as a habit that produces volitions to pursue and avoid things in accordance with our firm and determinate judgments concerning good and evil. Such a resolution helps secure our freedom, because we are more free when our volitions to pursue or avoid things are determined by our firm and determinate judgments regarding good and evil.

In making a case that the passions can diminish our freedom perhaps even to the point of our being unfree but that the passion of generosity can enhance our freedom, I do not mean to imply that Descartes believes that generosity is the only good passion. On the contrary, he asserts that the passions are "all by nature good and that we have nothing to avoid but their misuse or their excess" (AT XI 486; CSM I 403, a211) and that the use of the passions consists alone in their disposing "the soul to will things nature tells us are useful" (AT XI 372; CSM I 371, a52). Descartes believes that lacking clear and distinct ideas and thus being less than fully free, we often need the help of the passions to will what is good.[37]

Notes

Introduction

1. I would like to thank John Carriero for his help with this introduction.

Chapter 1

1. See Nicolas Malebranche, *The Search after Truth*, trans. and ed. Thomas Lennon and Paul Olscamp (Columbus: Ohio State University Press, 1980), 446–52; Baruch Spinoza, *Ethics*, IIIP2; Gottfried Leibniz, *The Monadology*, para. 17.

2. Daisie Radner, "Descartes' Notion of the Union of Mind and Body," *Journal of the History of Philosophy* 9 (1971): 159–70.

3. Margaret Wilson, *Descartes* (London: Routledge and Kegan Paul, 1978), 205.

4. Ibid., 219.

5. Ibid., 211.

6. Ibid., 218.

7. Ibid., 211. Wilson, however, does not mention that Descartes in his letter to Regius of January 1642 (which figures prominently in my interpretation of Descartes's view) tells Regius that he thinks it is untrue that mind and body are united by position or disposition (AT III 493; CSMK 206). See page 18 below.

8. Ibid., 207.

9. Radner, "Descartes' Notion of the Union of Mind and Body," 162.

10. Fred Sommers, "Dualism in Descartes: The Logical Ground," in *Descartes: Critical and Interpretive Essays*, ed. Michael Hooker (Baltimore: Johns Hopkins University Press, 1978), 224.

11. Wilson, *Descartes*, 214.

12. Étienne Gilson, *Études sur la rôle de la pensée médiévale dans la formation du système cartésien* (Paris: J. Vrin, 1930), 250.

13. Bernard Williams, *Descartes: The Project of Pure Enquiry* (New York: Penguin Books, 1978), 280.

14. There is one important passage in another letter to Princess Elizabeth that has generated some discussion lately, in which he does seem to assert that to teach their distinction is to deny their union: "[i]t does not seem to me that the human mind is capable of conceiving

very distinctly and at the same time the distinction between the soul and the body and their union; because for this it is necessary to conceive them as a single thing and at the same time to conceive them as two things; and this is absurd" (AT III 693; CSMK 227). In commenting on this assertion, Wilson says that it is hard to avoid interpreting it "as an overt admission on Descartes's part that his position on the mind-body relation is self-contradictory" (Wilson, *Descartes*, 207). Thus on her reading, Descartes thinks it would be harmful to discuss the union, given his aim of trying to prove the real distinction, because he thinks the two views are incompatible. But since she thinks that the two views are not incompatible, she is puzzled as to what could have motivated him to make such a statement. On her view, all that is required for a real distinction between mind and body is that they are capable of existing apart. Therefore, he could have consistently conceived of them as really distinct yet as "temporarily constituting one thing as a result of their present conjunction." In other words, she is relying on the quite plausible intuition that there is no difficulty in conceiving a proposition of the form "not p and possibly p," where "not p" is the proposition that mind and body do not exist apart and "possibly p" is the proposition that mind and body can exist apart.

I agree with Wilson that it is sufficient on Descartes's view for mind and body to be two things that they be capable of existing apart and that it is sufficient for them to constitute a single thing that they not exist apart. Thus it is not contradictory that mind and body should at the same time be two things and constitute a single thing. (My view, however, differs from hers as to what existing apart amounts to. In my dissertation, "Metaphysical Foundations of Descartes's Concept of Matter" [University of California, Los Angeles, 1982], and in chapter 3 here, I argue that what he means by the elliptical expression 'exist without the other' is that each can exist without the essential attribute of the other, and not, as Wilson and others seem to think, that each can exist without the other existing; *Descartes*, 190.) But let me offer the following conjecture, which I think is interesting but problematic, as to why Descartes might have thought it is impossible for us simultaneously to conceive of mind and body being two things and constituting a single thing. I think that Descartes might not distinguish between conceiving of p and conceiving of possibly p. In making this conjecture, I do not see myself as attributing a mistake to Descartes, because I myself have doubts as to whether such a distinction can be drawn. I can see no difference in what I do when I conceive of it snowing in July and when I conceive of it possibly snowing in July. This is not to say there is no difference between the proposition that it will snow in July and the proposition that possibly it will snow in July, for surely these propositions have different truth values and we can believe one without believing the other. But that sort of distinction in modality does not enter into our conception. Thus I think it would be entirely plausible for Descartes to maintain that we conceive the very same thing when we conceive of mind and body existing apart and when we conceive of them possibly existing apart. So if there is no distinction between conceiving of p and conceiving of possibly p, and if we cannot conceive of the state of affairs not p and p, then it would follow that we cannot conceive of the state of affairs not p and possibly p.

One merit of this conjecture is that it helps clear up some of the confusion surrounding Descartes's remarks about the relation of clear and distinct conception to reality. He is widely held to maintain, and in fact he does say in the *Third Meditation*, that whatever we clearly and distinctly conceive is true (AT VII 35; CSM II 24). But in the *Sixth Meditation*, from the premise that we can clearly and distinctly conceive mind apart from body and body apart from mind, he draws only the weak conclusion that mind can exist apart from body, when one would have expected him to conclude that they do exist apart (AT VII 78; CSM II 54). This has led to a misreading of the conclusion, which Wilson points out, as saying that they

do exist apart (Wilson, *Descartes*, 190). But I would also challenge her reading of the premise as saying that what we conceive is that mind and body can exist apart (197). Her reading is wrong because he consistently describes what is or can be conceived as their separate existence, not their possible separate existence (AT VII 78, 121, 223, 355, 444; CSM II 54, 86, 157, 245, 299: AT VIIIA 25; CSM I 211). Of course, it is not significant on my reading whether we describe what is conceived as their separate existence or their possible separate existence, but it is on hers. Now the language of the *Meditations* might support an interpretation according to which whatever we do clearly and distinctly conceive is true, and that whatever we can clearly and distinctly conceive is possible. But this reading is philosophically idiotic. Surely Descartes does not believe this: we do not conceive of the separate existence of mind and body, but we can conceive of it.

Instead, I think Descartes is best interpreted as believing that whatever we can or do clearly and distinctly conceive is possible, and that we can infer that something is true only if we can or do clearly and distinctly conceive that it cannot not be true. This interpretation finds support in a letter to Mersenne of March 1642: "you quote as an axiom of mine: 'Whatever we clearly conceive is or exists.' That is not at all what I think, but only that whatever we perceive clearly is true, and so it exists if we perceive that it cannot not exist; or that it can exist, if we perceive that its existence is possible" (AT III 544–5; CSMK 211). This passage supports my reading insofar as it denies that whatever we clearly and distinctly conceive is true. But it does not offer unequivocal support for my reading. Instead of saying that whatever we clearly and distinctly conceive is possible, he says that if we conceive that something is possible we can infer that it is possible. This might seem to suggest what I want to deny, that he does see a distinction between conceiving of p and conceiving of possibly p. But in that case, one would have expected him to tell us in this passage what we can infer from conceiving p, in addition to telling us what we can infer from conceiving that p is impossible and that p is possible. However, since no such account is provided, let me conjecture that it is not provided precisely because he sees no distinction in conceiving p and in conceiving possibly p. It should be noted that Wilson thinks this strong condition on what sort of conception is required to guarantee truth is too strong for Descartes's purposes (142).

15. It was gratifying to discover that I am in agreement with Leibniz on this reading of Descartes. See his *New Essays on Human Understanding*, trans. and ed. Peter Remnant and Jonathan Bennett (Cambridge: Cambridge University Press, 1981), 317. I would ask of those who think Descartes is being disingenuous to play along with my attempt to take his remarks at face value.

16. See AT III 493, 508; CSMK 206, 209: AT IV 166; CSMK 243: AT VII 219, 228; CSM II 155, 160.

17. Janet Broughton and Ruth Mattern, "Reinterpreting Descartes on the Notion of the Union of Mind and Body," *Journal of the History of Philosophy* 16 (1978): 27, understand his use of the expression 'substantial union' in the same way.

18. The key passage is AT VII 222; CSM II 156–7. Descartes's use of the term '*per se*' is obscured by the French translation, which translates '*a se*' as 'par soi', and '*per se*' as either '*par soi*' or '*de* soi' (AT IX 35 & 173). Haldane and Ross make use of the terms '*per se*' or 'self-derived' where '*a se*' is found in the Latin, although in a footnote to one passage they do point out that the Latin is '*a se*' (HR II 4 & 14). The crucial evidence that '*a se*' and '*per se*' have different meanings is found in the *Replies to the Fourth Objections*. Unlike some of his translators, Descartes is careful to restrict the use of the term '*a se*' to the "Reply to the Second Part, concerning God," where it is used to characterize God's power of causing his own existence

(see also AT VII 110; HR II 15), and the use of the term '*per se*' to the "Reply to the First Part, concerning the Nature of the Human Mind," where he makes it explicit that the distinction between things that can exist *per se* and things that cannot exist *per se* is the very same distinction as that between complete and incomplete things:

> But if they are called incomplete because they cannot exist *per se* alone, I confess it seems to me contradictory that they should be substances, that is, things subsisting *per se*, and at the same time incomplete, that is, not able to subsist *per se*. (AT VII 222; CSM II 156–7)

The CSM translation is better, consistently rendering '*a se*' as 'from itself' and '*per se*' as 'on their own.' However, Cottingham, Stoothoff, Murdoch and Kenny leave the term '*per se*' untranslated in the correspondence with Regius, thereby obscuring the intimate link between the Regius correspondence and the *Replies to the Fourth Objections* that I emphasize in chapter 2.

19. Martial Gueroult, *Spinoza* (Hildesheim: G. Olms, 1968), vol. I, app. 10, 540–55, and *Descartes selon l'ordre des raisons* (Paris: Aubier, 1953), vol. I 107–18.

20. As Jean Laporte argues in *Le rationalisme de Descartes* (Paris: Presses Universitaires de France, 1950), 187–8, *in genere* is not *in globo*.

21. See AT III 477; CSMK 202–3: AT VII 222; CSM II 157: AT VIIIA 71; CSM I 246 for passages in which Descartes asserts that bodies or parts of extended substance are themselves substances. See AT IV 349; CSMK 280: AT VII 255; CSM II 177: AT VIIIA 28; CSM I 213, where he makes assertions that entail that they are substances.

22. See AT VII 433; CSM II 292, where Descartes asserts that modes cannot be parts, and AT VIIIA 53–4; CSM I 233, where he identifies bodies and parts of matter.

23. It is clear that the issue as to whether Descartes's human being can claim to be a unity is not whether it satisfies the conditions of the strong conception of created substance. Accordingly, I am not referring to the strong conception when I say that he uses the term 'substance' to mean a unity. In discussing his strict conception of created substance, Gueroult curiously fails even to mention Descartes's claim that a human being is an *ens per se*. Perhaps this omission can be explained by his view expressed in *Descartes selon l'ordre des raisons*, vol. II, 65–6 and chap. 15, that Descartes thinks the substantial union of mind and body is incomprehensible from the point of view of our finite intellects, even though it is an indubitable fact made known by sensation and made possible by God's omnipotence.

24. These passages from the letter to Regius have since become well known. At the time of publication of this essay (1986), they had not yet been translated into English; they were subsequently included in CSMK.

25. Radner, "Descartes' Notion of the Union of Mind and Body," 165, contrasts the hylomorphic model of mind-body union with a model according to which mind is said to be a quality of body: "Descartes himself seems to be dissatisfied with the whole idea of one substance being styled a quality of another. For elsewhere, when he uses the analogy of gravity, as well as when he uses the other two analogies mentioned above, what he seems to have in mind is not one substance considered as a quality of another, but a special kind of relationship between two kinds of substances considered as such." But I think there is an important sense in which Descartes sees no distinction between the two models. To consider a substance as a quality of another just is to conceive a special kind of relationship, namely inherence, between two substances considered as such. However, I think Radner is probably correct in suggesting that to consider one substance as a quality of a second substance is to deny that

the first is the substantial form of the second, even if the first does inhere in the second. Thus this passage from the *Replies to the Sixth Objections* only supports the view that the mind is a form of the body, not that it is the substantial form of the body.

26. Geneviève [Rodis-]Lewis, *L'individualité selon Descartes* (Paris: J. Vrin, 1950), 76ff.

27. Gilson, *Études sur la rôle de la pensée médiévale*, 247.

28. Henri Gouhier, *La pensée metaphysique de Descartes* (Paris: J. Vrin, 1962), 351.

29. See *Comments on a Certain Broadsheet* for the clearest exposition of Descartes's view that attributes that constitute the essence of a thing are incompatible in a simple substance, but not in a composite substance (AT VIIIB 349–50; CSM I 298).

30. Gouhier, *La pensée metaphysique de Descartes*, 353.

31. Nor does it follow from the strong conception of substance discussed in the introductory section of this chapter that a substance cannot exist in a subject.

32. These remarks about gravity indicate that closely linked to Descartes's modification of the concept of substance is a modification in his concept of what it is to be in a subject. For Aristotle, part of what it is to be in a subject is to be unable to exist apart from it (*Categories*, 1a, 23–5). But Descartes, following his medieval Aristotelian predecessors, thinks that some things, such as gravity, that exist in a subject can nevertheless exist apart from it. He differs from the Aristotelians by insisting that such things are substances.

33. Wilson, *Descartes*, 213.

34. Ibid., 214.

35. Ibid., 213.

36. Ibid.

37. Aquinas, *Summa Theologica*, Ia, q76, a8; Aristotle, *De Motu Animalium*, text with translation, commentary, and interpretive essays by Martha Craven Nussbaum (Princeton, N.J.: Princeton University Press, 1978), 703a37, 52.

38. See also *Summa Contra Gentiles*, bk. 2, ch. 72.

39. After having come to the conclusion that such a distinction is available to Descartes, it was only on rereading Wilson and noticing her juxtaposition of these two articles from the *Passions* that it occurred to me that he actually makes the distinction. My translations of the articles closely follow hers.

40. Aquinas, *Summa Contra Gentiles*, bk. 2, ch. 72.

41. Aquinas, *Summa Theologica*, Ia, q76, a4.

42. Ferdinand Alquié alleges in a footnote (A III 976 n. 3) that the *Passions*, pt. I, art. 30, conflicts with this claim that the identity of the body derives from the soul. There Descartes asserts that "the body is one and in a certain manner indivisible because of the disposition of its organs, which are so related to one another that when any one is removed, that renders the whole body defective." However, I am not so sure there is a conflict. There would be a conflict if Descartes asserted that the identity of the human body derives solely from its union with the soul. But in the letter to Mesland, he seems to think that the identity of the human body depends on both its union with the soul and the dispositions of its organs. Geneviève Rodis-Lewis makes what I take to be a similar response to Alquié in "Limitations of the Mechanical Model in the Cartesian Conception of the Organism," in Hooker, *Descartes*, 169 n. 37.

43. Aquinas, *Summa Theologica*, Ia, q76, a8; Aristotle, *De Anima*, 412b10–24. But I do not think that even for the Aristotelians it is a necessary condition of a part being a part of my body that it retain its proper functioning—my eye will continue to be part of my body, should I go blind, even though it will cease to be an eye.

44. I am indebted to Jennifer Whiting here.

45. It might well be argued in further defense of Descartes that there is no need for me to concede any significant difference between his views and the Aristotelians' on the relation of ensoulment and teleological explanation. Gueroult, most prominently, thinks that the substantial union of mind and body "is the basis of the teleology of human nature and the finality of the human body" (*Descartes selon l'ordre des raisons*, vol. II , 187). He even goes so far as to claim that finality is spread through the whole human body, down to its smallest parts to infinity (186), where the end in question is the conservation of the union of mind and body (180). Gueroult's attribution of finality to the human body derives from Descartes's suggestion in the *Sixth Meditation* that God gave us the particular sensations we have because they indicate what is beneficial or detrimental to the composite human being. Indeed, this is why Gueroult says that it is sensation that transforms the human machine into an end (180).

But in providing such an explanation of our sensations, Descartes is violating his own strictures against appeals to God's will (my thinking on this issue has been influenced by an unpublished essay by Janet Broughton). Thus it strikes me that the issue as to whether teleological explanation plays only a very limited role in Descartes's account of human beings, as I was suggesting, namely, in the explanation of behavior that derives from the will of human beings, or whether it plays a more comprehensive, Aristotelian role of the sort Gueroult suggests, hinges on resolving Descartes's conflicting remarks about our access to God's will. I hope to say more on this problem in the future. Other references include Laporte, *Le rationalisme de Descartes*, 343–61, and Rodis-Lewis, "Limitations of the Mechanical Model," 152–70.

46. Gilson, *Études sur la rôle de la pensée médiévale*, 247–8.

47. John Carriero pointed out to me that Gilson might be defended along these lines.

48. Radner makes what might be construed to be a similar objection ("Descartes' Notion of the Union of Mind and Body," 162–4, 168). She points out that in a letter to Elizabeth, Descartes asserts that there are three primary notions in his philosophy, that of mind, that of body, and that of the union between them (AT III 665; CSMK 218). Radner equates these primary notions with his simple natures, and concludes that since simple natures cannot be analyzed by the mind into others more distinctly known, the union of mind and body cannot be a unity of composition, because a unity of composition can be analyzed into its components. Therefore, the objection is that Descartes's account of the union between mind and body is inconsistent because he wants to maintain both that it is a unity of composition and that it is a simple nature.

This objection has force only if one understands Descartes's assertion that the union of mind and body is a primary notion to be a claim about the human being, that is, if one understands the term 'union' to refer to that entity that results from uniting mind and body. But it might instead refer to the relation that unites mind and body. In that case, what he would be saying is that the relation of informing or inhering in is unanalyzable. This fits well with his advice to Regius that he need not give an account of this relation, since no one else has either (AT III 493; CSMK 206). (See Broughton and Mattern, "Reinterpreting Descartes," for another defense of Descartes against Radner's criticisms.)

But more important, even if Descartes did slip in the way Radner suggests by demanding of the composite that it be unanalyzable, that is an entirely different sort of objection from the fourth objection. No Aristotelian would demand of an essential unity that it be unanalyzable. Even someone who thinks that in the most proper sense of the term 'substance,' composites of form and matter are not substances but that rather only the form is substance is not going to deny that substance is capable of definition. But see Donald Morrison, "Three Criteria of Substance in Aristotle's Metaphysics: Unity, Definability, Separation" (Ph.D. diss., Princeton

University, 1983), chap. 3, for an interesting discussion of the paradox in Aristotle's demand that a definition be a unity.

49. Marilyn Adams, "The Metaphysical Structure of Composite Substances," chap. 15 in Adams, *William Ockham* (Notre Dame, Ind.: University of Notre Dame Press, 1987), vol. II, 633–70.

50. Ibid., 634.

51. At least where divine power is limited by what we can clearly and distinctly conceive. But without such an assumption, Descartes's theory of distinction—real, modal, and of reason—disintegrates.

52. In "Metaphysical Foundations of Descartes's Concept of Matter" (Ph.D. diss., University of California, Los Angeles, 1982), and in chapter 3 I argue that the notion of separate existence required for a real distinction between mind and body is not that each can exist without the other existing, nor that each can exist out of real union with the other, but that each can exist as a complete thing without having the essential attribute of the other. Thus mind can exist as a complete thing without being extended, and body can exist as a complete thing without thinking. And since, as discussed earlier on page 22, it is sufficient for being a complete thing or substance that a thing be able to exist apart from a subject, the human body can still be considered a substance even though it cannot exist without being the subject of the mind, because it does not need the mind as its subject. That is, on my interpretation of the sort of separability that is required for real distinction, body not only can be separated from mind, it is separate from mind (because it does not exist in the mind), even though it is and must be united to the mind (because its existence requires the mind to exist in it). But only God, on my reading, has the power to separate mind from body, that is, to keep the mind in existence when it is not in the body (which is a different power from the one bodies have of causing the composite human being to go out of existence by interfering with the human body). On this understanding, the relation of being separate is not symmetrical.

53. Michele Moody raised this objection.

54. I take up this challenge myself in chapter 2.

55. This essay was inspired by a remark made in conversation by Joshua Cohen. I am especially grateful to Marilyn Adams, my dissertation committee chair Robert Adams, and Rogers Albritton. I would also like to thank John Carriero, James Conant, Dan Garber, Hannah Ginsborg, Marjorie Grene, Jeremy Hyman, Edwin McCann, Michele Moody, Margaret Wilson, Kenneth Winkler, and the editors of *The Philosophical Review*. Jennifer Whiting deserves special mention for several helpful suggestions as I was preparing the draft first submitted for publication. Earlier versions were read at the University of California, Los Angeles, and at the University of Wisconsin, Madison, and discussed at the College of William and Mary.

Chapter 2

1. See chapter 1.

2. See Vere Chappell, "L'Homme Cartésien," in *Descartes: Objecter et repondre*, ed. Jean-Marie Beyssade and Jean-Luc Marion (Paris: Presses Universitaires de France, 1994), 403–26; Stephen Voss, "The End of Anthropology," in *Reason, Will, and Sensation*, ed. John Cottingham (Oxford: Clarendon Press, 1994), 273–306; and Marleen Rozemond, *Descartes's Dualism* (Cambridge, Mass.: Harvard University Press, 1998), chap. 5. Rozemond agrees that Descartes assents to both assertions, but her strategy of reconciliation is to argue that

Descartes means something weak and innocuous in asserting that a human being is an *ens per se* (157 n. 34). Chappell and Voss maintain that Descartes does not assent to the assertion that a human being is an *ens per se*.

3. Anthony Kenny, *Descartes* (New York: Random House, 1968), 154.

4. Here I am going somewhat beyond a literal reading of the text. The most literal reading of the passage would be that a composite figure does not have a true and immutable nature relative to those properties belonging to one figure that we attribute to the other.

5. This sort of objection is discussed by Margaret Wilson, *Descartes* (London: Routledge and Kegan Paul, 1978), 171–3, and Walter Edelberg, "The Fifth Meditation," *The Philosophical Review* 99 (1990): 493–533.

6. Aquinas, *Quaestiones de Anima*, q1. Descartes equates being able to exist apart from a subject with being a substance (AT VII 434; CSM II 293), which, as we have just seen, he identifies with being able to subsist *per se*.

7. I believe that Descartes is using the terms '*unum per se*' and '*ens per se*' as equivalent.

8. There is a slight infelicity of expression. In defining what it is to be an incomplete substance, Descartes speaks of the substance as being incomplete insofar as it is referred to the other parts with which it composes the whole. But in his two examples, he speaks of the substance as being incomplete insofar as it is referred not to the other parts but to the whole that it composes with the other parts.

9. I have been helped by e-mail correspondence with Vere Chappell on this point.

10. I believe that this notion captures the sort of causal and modal independence Descartes requires of created substances. Although it is beyond the scope of this essay to make the complete argument here, this passage is one of the crucial pieces of evidence I would cite in support of my interpretation.

11. It is commonly recognized that Descartes thinks a mind is incomplete in relation to God (AT VII 51; CSM II 35), but my point here is that Descartes thinks it is incomplete in relation to something other than God.

12. My rendering of the Latin '*ratione ipsius*' as 'by their very nature' here was, as I concede in chapter 5, incorrect. The phrase is rendered in CSMK as 'in relation to the whole human being' and by Geneviève Rodis-Lewis as 'par rapport à lui [l'homme],' *Lettres a Regius et Remarques sur l'explication de l'esprit humain* (Paris: J. Vrin, 1959), 67.

13. I put the phrase "when considered" in parentheses here to indicate that in the first letter to Regius we find the same ambiguity we found earlier in the *Replies to the First Objections* and in the *Replies to the Fourth Objections* as to whether the relativization is metaphysical or instead has to do with our different perspectives or purposes. I'm inclined to dismiss this ambiguity as insignificant because I believe Descartes thinks that differences in our consideration are the reflection of metaphysical facts.

14. Since I now think my translation of that passage in this essay was incorrect, I no longer think Descartes is suggesting that mind and body do not have natures that are complete in themselves.

15. Rozemond, *Descartes's Dualism*, 156.

16. Ibid., 157.

17. Ibid., 161.

18. Ibid., 156–7. This is the translation Rozemond uses.

19. Ibid., 157.

20. Aquinas, *Quaestiones de Anima*, q1, ad1.

21. Aquinas, *Summa Theologica*, IaIIae, q4, a5, ad2.

22. See Theo Verbeek, *Descartes and the Dutch: Early Reaction to Cartesian Philosophy 1637–1650* (Carbondale: Southern Illinois University Press, 1992), 105 n. 57.

23. This label is from Eleonore Stump, "Non-Cartesian Substance Dualism and Materialism without Reductionism," *Faith and Philosophy* 12 (1995): 520, although I am using it differently. She advocates the traditional view that Descartes's dualism is stronger than Aquinas's and uses the label "subsistence dualism" as a higher level genus that includes both views. I am using it to refer to Aquinas's weaker sort of dualism.

24. Aquinas, *Quaestiones de Anima*, q1, ad1.

25. The key passages are *Quaestiones de Anima*, q1, response, and *Summa Theologica*, Ia, q75, a2, ad1, ad2. Descartes's account of the *per se* subsistence of a hand does not line up exactly with that of Aquinas. Descartes thinks that a hand calls for union with the whole human body, but it does not demand$_1$ union with the whole body. However, Aquinas seems to think that even though a hand subsists *per se*, it still, unlike the soul, demands$_1$ union with the whole body because once a hand is separated from the rest of the body and hence from the soul it ceases to be a hand in the strict sense. We might well side with Aquinas here in thinking that a severed hand is not a hand in the strict sense and is only potentially a hand if it is capable of being reattached. However, I don't think we want to go so far as to say that a severed hand, because it differs in its being, is numerically distinct from the hand we had before it was severed, because this would force us to say that a hand that is successfully reattached is numerically distinct from the hand we used to have. So I think our intuitions are closer to Descartes's.

26. I would like to thank John Carriero for pressing me on this question.

27. I am using Rozemond's translation from *Descartes's Dualism*, 161.

28. Ibid., 157.

29. Again, since I now think my translation of this passage in this essay was incorrect, I no longer attribute this assertion to Descartes. In chapter 6, I try to give an account of why Descartes might have thought mind and body have a natural aptitude to be united.

30. Chappell, "L'Homme Cartésien," 422.

31. Ibid., 420.

32. Rozemond, *Descartes's Dualism*, chap. 1.

33. This is why the real distinction proof is not completed merely by showing that thought and extension are attributes. It needs to be shown further that neither thought nor extension is contained in the concept of the other.

34. An earlier version of this essay was presented at the Third California Conference in Early Modern Philosophy at the University of California, Irvine, June 27, 1997, organized by Alan Nelson. I would like to thank Larry Nolan, who was the commentator, and others who participated in the conference, especially Ed McCann and Calvin Normore. I would also like to thank John Carriero, Vere Chappell, Marleen Rozemond, and the anonymous referees for the *Journal of the History of Philosophy* for their extremely valuable comments on previous drafts.

Chapter 3

1. See chapters 1 and 2.

2. Lawrence Nolan, "Descartes' Theory of Universals," *Philosophical Studies* 89 (1998): 161–80, and "Reductionism and Nominalism in Descartes's Theory of Attributes," *Topoi* 16 (1997): 129.

3. See chapter 10, 161.

4. Marleen Rozemond makes what I take to be a similar point. See her *Descartes's Dualism* (Cambridge, Mass.: Harvard University Press, 1998), 50–1.

5. Descartes asserts that substance can be recognized through any attribute, but he also thinks that all modes of a substance are referred to its principal attribute.

6. Rozemond, *Descartes's Dualism*, 24–8. Vere Chappell, in "Descartes's Ontology," *Topoi* 16 (1997): 116–7, 119, also endorses the attribution of this principle to Descartes.

7. Stephen Yablo, "The Real Distinction between Mind and Body," *Canadian Journal of Philosophy*, supp. 16 (1990): 199.

8. See chapter 2.

9. Bernard Williams, *Descartes: The Project of Pure Inquiry* (New York: Penguin Books, 1978), 114; Michael Hooker, "Descartes's Denial of Mind-Body Identity," in *Descartes: Critical and Interpretive Essays*, ed. Hooker (Baltimore: Johns Hopkins University Press, 1978), 176; Margaret Wilson, *Descartes* (London: Routledge and Kegan Paul, 1978), 190; Yablo, "Real Distinction between Mind and Body," 152–4.

10. Francisco Suárez, "On the Various Kinds of Distinctions" [De variis distinctionum generibus], disputation VII in *Disputationes Metaphysicae*, trans. Cyril Vollert (Milwaukee: Marquette University Press, 1976), 5.

11. Ibid., 46.

12. Pere J. B. de la Grange, *Les Principes de la Philosophie contre les nouveau philosophes* (Paris: Georges Josses, 1675), 58.

13. In commenting on an earlier version of this essay presented at the University of California, Berkeley, Hannah Ginsborg made a subtle observation connecting my discussion of the distinction of reason with this discussion of separability. She noted that if we reject my account of the distinction of reason and agree with Larry Nolan that things distinct by reason are identical in reality, then the second and third accounts of separability collapse into one. So, for example, to say that body can exist without a real union with mind would amount to saying that body can exist without the attribute thought existing in it.

14. Chappell, "Descartes's Ontology," 121–2, makes a similar claim.

15. Margaret Wilson, *Descartes*, 196–7, 190.

16. In the following passage, Descartes identifies the notions of being complete, subsisting *per se*, and being a substance: "I am not unaware that some substances are commonly called 'incomplete.' But if they are said to be incomplete because they cannot exist *per se* alone, I confess that it seems contradictory to me that they should be substances, that is, things subsisting *per se* and at the same time incomplete, that is, unable to subsist *per se*" (AT VII 222; CSM II 156–7).

17. See chapters 1 and 2.

18. Aristotle, *De Anima*, 403a10–1.

19. I have worked on this essay on and off for twenty years, and I can no longer remember all whose comments have helped. I would like to thank my dissertation supervisors Robert M. Adams and Rogers Albritton; others who provided comments at the time I was working on my dissertation, including David Sachs, Ed McCann, and Marilyn Adams; John Carriero, who has been a constant source of useful advice; Margaret Wilson, Larry Nolan, Marleen Rozemond, Vere Chappell, and Stephen Yablo, whose excellent work on these issues has enabled me to formulate my own views; Hannah Ginsborg and David Cunning, who commented on an earlier version of this essay at the Fifth Annual Meeting of the California Scholars in Early Modern Philosophy, University of California, Berkeley,

California, September, 1998, and other members of the audience; and finally, the referees for *Philosophy and Phenomenological Research*.

Chapter 4

1. See chapter 1.
2. Marleen Rozemond, *Descartes's Dualism* (Cambridge, Mass.: Harvard University Press, 1998), 163.
3. Robert Pasnau, "Form, Substance, and Mechanism," *The Philosophical Review* 113 (2004): 57.
4. Ibid.
5. Marleen Rozemond, "Descartes, Mind-Body Union, and Holenmerism," *Philosophical Topics* 31 (2003): 363.
6. See chapter 1, 25–7.
7. See Pasnau, "Form, Substance, and Mechanism," 57.
8. Marilyn Adams, *William Ockham* (Notre Dame, Ind.: University of Notre Dame Press, 1989), vol. II, 648–50.
9. See chapter 1, 28–9.

Chapter 5

1. Anthony Kenny, *Descartes: A Study of His Philosophy* (New York: Random House, 1968), 222–3.
2. My view is that Descartes thinks his account of the relation between mind and body is necessary for an ontological explanation of the unity of the composite human being, but that it provides only a teleological explanation of the sensations we have and is not necessary to provide an ontological explanation of our capacity to have those sensations.
3. Geneviève Rodis-Lewis, *L'individualité selon Descartes* (Paris: J. Vrin, 1950), 76ff.
4. Existing whole in the whole and whole in the part is part and parcel of hylomorphism because it was considered to be a necessary condition for something to count as a substantial form. However, as Mark Kulstad has pointed out, it cannot by itself be a sufficient condition; otherwise, since God was thought to exist whole in the whole universe and whole in the part, the objectionable conclusion would follow that God is the soul of the world. Marleen Rozemond, in "Descartes, Mind-Body Union, and Holenmerism," *Philosophical Topics* 31 (2003): 363–4, has said that this language is "evocative of hylomorphism," and to this extent she agrees with me. However, she argues that it does not show that Descartes endorses "full-fledged hylomorphism." As far as I can determine, she offers two reasons for this: first, Descartes does not regard the soul as the source of life of each part of the body, and second, his watch analogy in the *Passions* shows that he rejects hylomorphism. I discuss both of these objections later.
5. On this account, Spinoza's God would not be a simple but rather a composite substance, because God's attributes are conceptually independent.
6. Marleen Rozemond, *Descartes's Dualism* (Cambridge, Mass.: Harvard University Press, 1998), 145.
7. Robert Pasnau, "Form, Substance, and Mechanism," *The Philosophical Review* 113 (2004): 57.
8. See chapter 2, 43–7.

9. A version of this essay was presented at the Third Biennial Margaret Dauler Wilson Conference, University of California, San Diego, June 21, 2006. I would like to thank John Carriero for several editorial suggestions.

Chapter 6

1. Aquinas, *Summa Theologica*, Ia, q75, a2, ad1, ad2.
2. Aquinas, *Summa Theologica*, Ia, q75, a2, ad1.
3. Aquinas, *Summa Theologica*, Ia, q75, a2, ad1.
4. Aquinas, *Summa Theologica*, Ia, q75, a2, ad2.
5. Aquinas, *Summa Theologica*, Ia, q75, a2, ad1.
6. Aquinas, *Quaestiones de Anima*, q1, ad1.
7. Aquinas, *Summa Theologica*, Ia, q75, a2, reply.
8. Aquinas, *Summa Theologica*, Ia, q75, a2, reply.
9. Aquinas, *Quaestiones de Anima*, q1, ad1, ad4.
10. Aquinas, *Summa Theologica*, Ia, q75, a2, ad2.
11. Aquinas, *Summa Theologica*, Ia, q75, a2, ad2.
12. Aquinas, *Summa Theologica*, Ia, q75, a2, reply.
13. Aquinas, *Summa Theologica*, Ia, q84, a7, q85, a1.
14. Descartes does say that the mind is complete (AT VII 222; CSM II 156–7), but I take it he means what Aquinas means when he says that the soul has complete being and distinguishes that from having a complete species (*Quaestiones de Anima*, q1, ad 1).
15. John Carriero, *Descartes and the Autonomy of the Human Understanding* (New York: Garland, 1990), 12–20, 92–6, 227–32.
16. Aquinas, *Summa Theologica*, Ia, q89, a3.
17. See chapter 2, 47, and chapter 5, 87.
18. Aristotle, *De Anima*, 403a10–1. The translation is from *The Complete Works of Aristotle*, ed. Jonathan Barnes (Princeton, N.J.: Princeton University Press, 1985), vol. I, 642.
19. In pt. 1, art. 2 of the *Passions*, Descartes does say that in order to understand the passions it is important to distinguish the functions of the soul from those of the body (AT XI 328; CSM I 328). As the discussion proceeds, I take him to be using the term not in the Aristotelian sense to refer to their purposes, but rather in a deflated sense to refer to their operations in an extended sense to include what they undergo as well as what they do.
20. Descartes does advise Regius to say that "there is nothing in the soul on account of which it *debeat* united to the body" (AT III 461; CSMK 200), where *debeat* can be rendered as "must be" or as "ought to be." Neither rendering commits Descartes to the view that it is not fitting or appropriate for mind to be united to body. Something can be fitting or appropriate without being required.
21. Here I am disagreeing with the view of Janet Broughton, in *Descartes's Method of Doubt* (Princeton, N.J.: Princeton University Press, 2002), 139–41, that Descartes makes use of two notions of thinking—a narrow notion that equates thinking with what is intellectual and a broader notion that amounts to consciousness.
22. In chapter 8, I try to explain how Descartes could consistently maintain both that a given sensation is one and the same mode as a mode of extension existing in the body and that that very sensation could exist without any bodies existing. At the time I wrote that essay, it did not occur to me that there is also an apparent tension between the suggestion in the *Second Meditation* that we could have sensations even if there were no bodies and the claim in

the *Sixth Meditation* that we can infer from the sensations of pain, hunger, and thirst that we are so closely united to our body as to compose one thing with it. I see two ways to reconcile this tension. First, one could argue that the possibility mentioned in the *Second Meditation* of our having sensations in the absence of bodies is only an apparent possibility. Second, one could argue that in order to infer from the fact that we have sensations of pain, hunger, and thirst that we compose one thing with our body, we need to appeal to additional claims similar to those Descartes uses in proving the existence of body, namely, that those sensations lead us to believe that we compose one thing with our body, that we would have no way of discovering that that belief is false if it is false, and that God would be deceiver if God gave us an inclination to believe something false and no means of discovering that it is false.

23. Aquinas, *Summa Theologica*, Ia, q84, a7.

24. A version of this essay was presented at the Fourth Biennial Margaret Dauler Wilson Conference, Cornell University, Ithaca, New York, June 30, 2008. I am grateful for the helpful comments at that session, especially those of Louis Loeb and Dan Kaufman. I would also like to thank John Carriero and Jeremy Hyman for their especially insightful comments on previous drafts and Eva Hoffman for useful stylistic suggestions.

Chapter 7

1. He also endorses the doctrine of the identity of action and passion in a letter of August 1641 to an unknown correspondent (AT III 428; CSMK 192–3).

2. I made this point originally in "Three Dualist Theories of the Passions," (chapter 12) but it has been developed most fully by Lisa Shapiro in "Descartes' 'Passions of the Soul' and the Union of Soul and Body," *Archiv für Geschichte der Philosophy* 85 (2003): 211–41. It is noteworthy that Spinoza in the *Ethics*, Part V, Preface also attributes this view to Descartes.

3. Richard Watson, *The Downfall of Cartesianism 1673–1712: A Study of Epistemological Issues in Late 17th Century Cartesianism*, International Archives of the History of Ideas 11 (The Hague: Martinus Nijhoff, 1966).

4. Gilbert Ryle, *The Concept of Mind* (Chicago: University of Chicago Press, 1949), 67.

5. Alan Nelson, in "Descartes's Ontology of Thought," *Topoi* 16 (1997): 163–78, reads Descartes as maintaining that it is in principle impossible for us to have clear and distinct ideas about practical matters because the complexity of external particulars renders our ideas of them confused to some degree.

Chapter 8

1. Aquinas, *Summa Theologica*, Ia, q78, a1; and II *De Anima*, lect. 5, n. 284. For an account of Aquinas's views, see my "St. Thomas Aquinas on the Halfway State of Sensible Being," *The Philosophical Review* 99, 1 (January 1990): 73–92.

2. Marjorie Grene, *Descartes* (Minneapolis: University of Minnesota Press, 1985), 24–7.

3. Aristotle, *Physics*, 202a12–202b28. Interpretation of Aristotle on these issues is itself controversial, but two recent articles by Robert Heinaman, "Aristotle on Housebuilding," *History of Philosophy Quarterly* 2, 2 (April 1985): 145–62, and "Aristotle and the Identity of Actions," *History of Philosophy Quarterly* 4, 3 (July 1987): 307–28, not only provide a detailed defense of the sort of interpretation I give of Aristotle but also indicate that certain puzzles that arise on my interpretation of Descartes also arise for Aristotle. See my later discussion

on 120–1 for a comparison of my solution to these puzzles on Descartes's behalf with Heinaman's solution on Aristotle's behalf.

4. Following Heinaman, I will use 'activity' as a rendering of '*energeia*' in the sense distinguished from that of *kinesis*, and I will use 'actuality' as a rendering of '*energeia*' in the sense that includes activities and *kineseis*. See "Aristotle on Housebuilding," 158 n. 1.

5. Aristotle, *De Anima*, 426a9.

6. Aristotle, *De Anima*, 417a21–b28. In these passages, Aristotle actually seems both to assert and to deny that learning or acquiring knowledge is an alteration.

7. The French translation of the passage has *choses* as a rendering of the Latin *rerum* (AT IXB 94; A III 207).

8. Since the French translation also has *qualités* for the Latin *modos*, one might wonder why it should not be inferred instead that he thinks action and passion are one and the same quality. But the French translation of *Principles*, pt. I, art. 56, makes it clear, even clearer than the Latin, that Descartes thinks qualities are modes (AT IXB 49: AT VIIIA 26).

9. It is interesting to note as a point of comparison that Aquinas thinks that passions, in the proper sense of the term, involve not only receiving something but also throwing off something and thus are alterations. But since alteration is found only where there is movement, and since movement is found only in bodies, all passions, in the proper sense, are corporeal changes. Therefore, passions, in the proper sense, can be attributed to the soul only because the body, that is, the matter of which it is the form, undergoes something. Thus they belong to the soul only accidentally (*Summa Theologica*, IaIIae, q22, a1; *De veritate*, q26, a1). So Descartes disagrees with Aquinas in allowing the soul itself to have passions in the proper sense. Nevertheless, even though their notions of movement are entirely different, there is a sense in which they can be said to be in agreement that movement is found only in bodies and not in the soul.

10. Alexandre Koyré, *Newtonian Studies* (Chicago: University of Chicago Press, 1968), 66–70.

11. Leibniz, *New Essays on Human Understanding*, trans. and ed. Peter Remnant and Jonathan Bennett (Cambridge: Cambridge University Press, 1981), 216: "I am not convinced that we should say that the very same being is called action in the agent and passion in the thing which is acted upon, so that it exists in two subjects at once, like a relation; and that it would not be better to say that there are two beings, one in the agent and the other in the thing which is acted upon."

12. My interpretation of this passage from the *Principles* differs sharply from that of Martial Gueroult, who cites it as evidence that forces, as forces, are quite contrary to modes of extension and should instead be referred to God. See his "The Metaphysics and Physics of Force in Descartes," in *Descartes: Philosophy, Mathematics and Physics*, ed. Stephen Gaukroger (Totowa, N.J.: Barnes and Noble, 1980), 196–8.

13. See also AT IV 163–4; CSMK 241–2 and AT VIIIA 48; CSM I 229.

14. This agrees with the views of V. P. Miller and R. P. Miller. See their edition of the *Principles of Philosophy* (Boston: Reidel, 1983), 51 n. 13.

15. By often speaking in terms of one body giving or transmitting or transferring motion to another body, Descartes is naturally read as saying that motion passes from one body to another—see for example AT VIIIA 65; CSM I 242. But I take the point of his response to More to be that what More took to be the natural reading is not the intended reading.

16. *Principles*, pt. II, arts. 41 and 44 (AT VIIIA 65–7; CSM I 242–4).

17. Descartes would presumably say, in light of his fourth law of impact, that when a smaller body strikes a larger body at rest, the smaller body does not act on the larger body,

so in that case the given quantity of motion resides entirely in the smaller body and is not shared (AT VIIIA 68). The complete story of Descartes's account of collisions, which I am not prepared to give, would have to resolve whether a body's determination to move in a certain direction can also be an action or a passion, and if so, whether the doctrine of the identity of action and passion also applies to it.

18. There is an analogous identity when mind acts on body. The action in the mind, a volition, is the very same mode as the passion in the body, a motion in the pineal gland. So Descartes defines one class of volitions as actions of the mind terminating in the body (AT XI 343; CSM I 335), and in a letter to Arnauld, July 29, 1648, he says that "we are conscious of every action by which the mind moves the nerves in so far as such action is in the mind," which implies that such actions are not just in the mind but also in the body, where, presumably, they are passions (AT V 221–2; CSMK 357).

19. See chapter 1.

20. Alan Gabbey points this out in "Force and Inertia in the Seventeenth Century," *Descartes: Philosophy, Mathematics and Physics*, ed. Stephen Gaukroger (Totowa, N.J.: Barnes and Noble, 1980), 257.

21. It is worth noting that in discussing those cases in which the mind is the cause of a passion existing in the mind, he again invokes the doctrine of the identity of action and passion to justify calling such a perception an action. He says that names are always determined by what is most noble (AT XI 343; CSM I 336).

22. The translation of a crucial phrase of the third sentence in art. 50 is omitted by CSM, rendering that sentence unintelligible.

23. See also AT VII 248–6; CSM II 173–8.

24. Heinaman, "Aristotle and the Identity of Actions," 315.

25. Heinaman, "Aristotle on Housebuilding," 157–8.

26. If it is possible for a mode, such as a motion, that is a passion with respect to one action to be an action with respect to another passion, then perhaps the two actions, that in the distant agent and that in the proximate agent, could be identical, provided they are simultaneous, since for Descartes the action and passion must be simultaneous. In that case, there would be a single mode straddling several substances at once.

27. Spinoza, *Ethics*, IIP7S.

28. Spinoza, *Ethics*, IIIP2S.

29. Spinoza, *Ethics*, IIP6.

30. Aquinas, *Summa Theologica*, Ia, q44, a2, ad2.

31. Descartes does say that we find by experience that the actions of the soul proceed directly from it (AT XI 342; CSM I 335).

32. This essay underwent several drastic revisions in the nine-year history leading up to its original publication. I owe a great debt to two people whose comments greatly influenced the course of these revisions: Thomas Prendergast and Edwin Curley. An earlier version of this essay was presented at the University of North Carolina, the Massachusetts Institute of Technology, the University of Michigan, the University of New Mexico, California State University, Long Beach, and the University of California, Irvine. Even earlier, and perhaps unrecognizable, versions were presented at Clark University, for which I owe thanks to Dan Shartin and Peter Lipton, and at Cornell University, where Carl Ginet's comments raised issues to which I was finally able to begin to respond only in the original published version. I thank several others who have made helpful comments along the way: Elizabeth Anderson, John Carriero, James Conant, Dan Garber, Hannah Ginsborg, Gary Hatfield, Robert

Heinaman, Harold Hodes, Terry Irwin, Ed McCann, Don Morrison, Marleen Rozemond, Iakovos Vasiliou, Margaret Wilson, Ken Winkler, Allen Wood, and Robert M. Yost. I am especially grateful to my dissertation chairman Robert Adams, to Rogers Albritton, and to Marjorie Grene and the members of her National Endowment for the Humanities Summer Seminar on Descartes.

Chapter 9

1. Alexandre Koyré, *Newtonian Studies* (Cambridge, Mass.: Harvard University Press, 1965), 67.

2. Richard Westfall, *Force in Newton's Physics: The Science of Dynamics in the Seventeenth Century* (New York: American Elsevier, 1971), 64.

3. Anneliese Maier, *On the Threshold of Exact Science: Selected Writings of Anneliese Maier on Late Medieval Natural Philosophy*, ed. and trans. Steven D. Sargent (Philadelphia: University of Pennsylvania Press, 1982), 78.

4. To say that motion is not a change is not to deny that a moving body changes its place. Rather, it is to say that a body changing place because it is continuing in the same state of uniform motion is not undergoing a change.

5. Koyré, *Newtonian Studies*, 70.

6. Since the contradiction I am attributing to Koyré has been misinterpreted, it may be useful to explain it more fully in premise and conclusion form, as follows.

1. Descartes thinks that the fact that motion is a state and not a change explains why no force in bodies is needed for a moving body to persist in motion.
2. Descartes thinks that there are no forces in bodies period.
3. Descartes thinks that changes of motion (i.e. accelerations) also do not require a force in bodies. (from 2)
4. Even if Descartes had conceived of motion as a change, he still would not have thought it required a force in bodies. (from 3)
5. If Descartes would not have thought that motion conceived as a change requires a force in bodies, then the explanation for why he thinks motion requires no force in bodies cannot be that he considered motion to be a state rather than a change.
6. The explanation for why Descartes thinks motion requires no force in bodies cannot be that he considered motion to be a state rather than a change. (from 4 & 5)

Koyré asserts 1 and 2; and 5 seems uncontroversially true. 6 follows from 2 and 5, but 6 contradicts 1. Therefore Koyré has contradicted himself.

7. Aristotle, *Physics*, 202a12–202b28.

8. In addition to reconceptualizing motion as a state rather than a change, Descartes is also reconceptualizing what it is to be a state, since in asserting that motion is both a state and a passion, he is allowing that a state can be something that a subject undergoes.

9. The example of a spinning top has a long history. The Stoic Chrysippus, as reported by Cicero in *De Fato* §42–3, held that though a spinning top cannot begin to move unless pushed, it continues to turn by its own force and nature.

10. I belabor the point because one reader expressed doubt that Descartes would hold that the top acts on itself.

11. Descartes implies a commitment to a condition of intelligibility in *The World* when he states that he is going to attribute to matter "a nature in which there is absolutely nothing that everyone cannot know as perfectly as possible" (AT XI 33; CSM I 90) and that everything he proposes can be distinctly imagined in order to avoid hidden contradictions (AT XI 36; CSM I 92).

12. Gary Hatfield, "Force (God) in Descartes's Physics," *Studies in the History and Philosophy of Science* 10 (1979): 126, 129.

13. I. Bernard Cohen, " 'Quantum in Se Est': Newton's Concept of Inertia in Relation to Descartes and Lucretius," *Notes and Records of the Royal Society* 19 (1964): 144–7.

14. So I agree with Alan Gabbey that force is a real feature of Descartes's mechanical world. See his "Force and Inertia in the Seventeenth Century: Descartes and Newton," in *Descartes: Philosophy, Mathematics and Physics*, ed. Stephen Gaukroger (Totowa, N.J.: Barnes and Noble, 1980), 234.

15. Martial Gueroult, "The Metaphysics and Physics of Force in Descartes," in Gaukroger, *Descartes*, 196–8. This passage is also discussed by Hatfield, "Force," 120–1; Westfall, *Force*, 57; and Daniel Garber, *Descartes's Metaphysical Physics* (Chicago: University of Chicago Press, 1992), 159–62.

16. It is important to recognize that in describing motion as a transfer, Descartes is here using the term "transfer" to indicate the transfer of the moved body from one place to another and not to indicate that motion is something transferred from one body to another.

17. Hatfield ("Force," 123) mentions this passage, and when I presented this essay at the Meetings of the American Philosophical Association, Pacific Division, Berkeley, California, March 28, 1997, Marleen Rozemond mentioned it as posing a potential problem for my interpretation.

18. Garber, *Physics*, 297–8.

19. These claims were made by readers of earlier versions of this essay. The second claim was made by a reader attacking my criticisms of the first claim.

20. I don't believe this point is original with me, but I have failed in my attempts to locate its source. I think there are reasons to doubt whether it is correct to conclude, as I am confident Descartes would conclude, that motions lacking a natural endpoint thereby lack a final cause. I consider this issue in "Does Efficient Causation Presuppose Final Causation? Aquinas versus Early Modern Mechanism," in *Metaphysics and the Good: Themes from the Philosophy of Robert Merrihew Adams,* ed. Larry Jorgensen and Samuel Newlands (Oxford: Oxford University Press, 2009).

21. The Aristotelians did think that heavenly bodies have continuous, eternal circular motion whose starting point and ending point are the same. See Aristotle, *On the Heavens*, 279b1–b3.

22. I. Newton, *Mathematical Principles of Natural Philosophy*, trans. Andrew Motte, rev. Florian Cajori (Berkeley: University of California Press, 1962), vol. I, 2.

23. John Herivel, *The Background to Newton's Principia* (Oxford: Clarendon Press, 1965), 27–8.

24. Ibid.

25. Gabbey, "Force and Inertia," 274–6; J. E. McGuire, "Natural Motion and Its Causes: Newton on the 'Vis Insita' of Bodies," in *Self-Motion: From Aristotle to Newton*, ed. Mary Louise Gill and James G. Lennox (Princeton, N.J.: Princeton University Press, 1994), 305–29.

26. McGuire, "Natural Motion," 310.

27. Ibid., 327.

28. See Herivel, *Background*, 311. It is significant that Newton refers to a force in virtue of which a body persists in its state of rest.

29. McGuire, "Natural Motion," 306.

30. E. J. Dijksterhuis, *The Mechanization of the World Picture: Pythagoras to Newton*, trans. C. Dikshoorn (Princeton, N.J.: Princeton University Press, 1986), 466, 468.

31. Newton, *Principia*, vol. I, 2, definition 4.

32. See Maier, *Threshold*, 81.

33. Newton, *Principia*, vol. I, 2, definition 4.

34. Newton, *Principia*, vol. I, 2, definition 3.

35. McGuire, "Natural Motion," 310–1.

36. Herivel, *Background*, 307.

37. L. J. Russell, "Action and Reaction before Newton," *TheBritish Journal for the History of Science* 9 (1976): 25–38. Aristotle does not think there is a reaction for every action. An agent whose matter is different from the patient it acts on is not in turn acted on.

38. It is important to note that the correspondence of action and reaction and the correspondence of action and passion are distinct but perfectly consistent. It is a mistake to characterize Descartes's *passio* as a force to resist motion, as Gabbey does ("Force and Inertia," 271), especially if that is taken to suggest that Newton's concept of *reactio* replaces the Aristotelian notion of *passio*.

39. Westfall, *Force*, 450; I. Bernard Cohen, "Newton's Concepts of Force and Mass, with Notes on the Laws of Motion," in *The Cambridge Companion to Newton*, ed. I. Bernard Cohen and George E. Smith (Cambridge: Cambridge University Press, 2002), 61.

40. Anneliese Maier, *Threshold*, 78. Her point, the opposite of mine, is that Newton also thought that uniform motion does not require any force.

41. This essay was accepted for publication in *Metaphysics and the Good: Themes from the Philosophy of Robert Merrihew Adams,* ed. Larry Jorgensen and Samuel Newlands, (Oxford: Oxford University Press, 2009), but the editors and I decided at the last minute that another essay, "Does Efficient Causation Presuppose Final Causation? Aquinas versus Early Modern Mechanism," was more appropriate to the theme of the volume. Earlier versions of this essay were presented at the First California Conference in Early Modern Philosophy, University of California, Irvine, June 1995, and at the American Philosophical Association, Pacific Division Meetings, Berkeley, California, March 28, 1997. I apologize for not keeping track of everyone who has provided comments, but let me mention Alan Nelson, John Carriero, Ed McCann, and Calvin Normore. I thank Charles Huenemann for his comments at the APA session. More recently, Brian Copenhaver, Andrew Youpa, Casey Hall, and Larry Jorgensen have been immensely helpful.

Chapter 10

1. Fred Dretske is an important contemporary philosopher who has offered an account of representation according to which, on my reading, misrepresentation is impossible in normal circumstances. See "Misrepresentation," in *Belief*, ed. R. Bogdan (Oxford: Oxford University Press, 1986), and *Explaining Behavior* (Cambridge: Bradford Books, 1988), chap. 3; see also Jerry Fodor's discussion of Dretske's views in "Semantics, Wisconsin Style," *Synthese* 59 (1984): 231–50.

For those approaching this essay from the point of view of contemporary discussions, it is important to point out another way Descartes's project differs from Dretske's. Dretske's discussion of misrepresentation is driven by the aim of providing an account of meaning and

by the fundamental assumption that meaning depends on the capacity for misrepresentation. "What we are after is the power of a system to say, mean, or represent (or indeed, *take*) things as P *whether or not p is the case*. . . . For only if a system has [the capacity for misrepresentation] does it have, in its power to get things right, something approximating meaning" (*Explaining Behavior*, 65). Descartes, in contrast, is not trying to provide an account of meaning, nor is there evidence that he holds any beliefs about the relation between meaning and the capacity for misrepresentation. What his purposes are in discussing misrepresentation is a matter of dispute—to be examined hereafter.

2. Ideas are distinguished from other thoughts like volitions and emotions because, although those other thoughts do have some thing that is their object, they contain additional forms that are not themselves a likeness of that object (AT VII 37; CSM II 25–6).

3. I am inclined to identify the notions of objective reality and objective being, and this passage might seem to provide conclusive evidence in favor of that interpretation. But Vere Chappell, who maintains that these notions should be distinguished, has pointed out to me that the Latin term translated as "being" is not '*esse*' but '*entitas*.'

4. Margaret D. Wilson, *Descartes* (Boston: Routledge and Kegan Paul, 1978), 111–2. The independent argument is that even if these ideas do have objective reality, they have so little that Descartes himself might have caused them with his own formal reality, in the same way he might have caused our clear and distinct ideas of bodies.

5. Ibid.

6. Ibid., 114. She says that he thinks they fail to exhibit a possibly rather than an actually existent quality because she thinks that to be as if of some thing is to be as if of a possibly existent thing.

7. Wilson, "Descartes on the Representationality of Sensation," *Central Themes in Early Modern Philosophy*, ed. J. A. Cover and Mark Kulstad (Indianapolis: Hackett, 1990), 4.

8. Some of Wilson's remarks suggest an alternative account of the object of presentational representation. When she says that the idea of cold presents cold as being a certain way, she implies that an idea presentationally represents the very same thing it referentially represents. On this alternative account, the difference between referential and presentational representation is that presentational representation involves the additional aspect of representing that thing as being a certain way.

The first account is suggested by what she says about another example ("Descartes on the Representationality of Sensation," 8). Inviting us to suppose that the mind is an immaterial substance but that we can conceive of mind only as an attribute of body, she says that our idea of mind presents a bodily attribute. To describe this example consistently with the alternative account, she would have had to say instead that our idea of mind presents mind as a bodily attribute.

9. I am puzzled by her apparently wanting to draw a distinction between cold's being a privation and its being a non-existent ("Descartes on the Representationality of Sensation," 11). I don't think Descartes would want to draw this distinction regarding cold.

10. *Principles*, pt. II, arts. 27 and 55 (AT VIIIA 55, 71; CSM I 234, 246); *The World*, ch. 7 (AT XI 40; CSM I 94).

11. Wilson, *Descartes*, 232 n. 12.

12. The sense of possibility I have in mind is this: if God had created the world so that cold was a privation, then under such circumstances our idea of cold, which is as if of something positive, would represent a non-thing as if it were a thing.

13. So Wilson says that Arnauld's objection "seems to rely on what we might call a purely presentational notion of representation" ("Descartes on the Representationality of

Sensation," 7). The intentional object of a sensation, in Elizabeth Anscombe's sense, is what, in Wilson's sense, it presentationally represents. See G. E. M. Anscombe, "The Intentionality of Sensation," in *Collected Philosophical Papers*, *Metaphysics and the Philosophy of Mind* (Minneapolis: University of Minnesota Press, 1981), vol. II, 9ff.

14. That this sort of case is possible is precisely what Dretske is trying to establish in arguing that an idea can represent something even though it is caused by something else.

15. On the second account of the object of presentational representation mentioned in note 8, this interpretation of the point of Arnauld's objection would be restated as follows: an idea cannot referentially represent something without presentationally representing it as it is.

16. Since I will be relying on scholastic accounts of cognition, primarily that of Aquinas, it might be objected that it is misleading to characterize them as Aristotelian. But I think the Aristotelian label is justified, because I believe Aquinas's account is an accurate interpretation of Aristotle.

17. For a fuller account of Aquinas's views, see my "St. Thomas Aquinas on the Halfway State of Sensible Being," *The Philosophical Review* 99 (1990): 73–92.

18. Aristotelians did draw an important distinction between univocal and equivocal efficient causes. A univocal cause produces an effect of the same nature, as fire generates fire. An equivocal cause produces an effect of a different form or nature. Such a cause must be more noble than the form it produces and must contain it eminently; Francisco Suárez, *Disputationes Metaphysicae*, XVII, sec. II, 21 (Hildesheim: Georg Olms, 1965), vol. I, 591–92. However, it was thought that the only terrestrial beings capable of being equivocal causes are animate beings. I am indebted to a conversation with David Glidden on this point.

19. The fact that Arnauld supports his claim that an idea cannot be of something other than what it exhibits by appeal to the claim that the idea of x just is x existing objectively in the intellect also provides evidence against the first interpretation. Such an appeal would be beside the point if he held the view underlying the first interpretation—that the only coherent notion of representation is presentational. I suppose it is possible to construe Arnauld's objection in still a third way, namely, as rejecting any notion of presentational representation and holding that the only coherent notion of representation is referential (in Wilson's sense) or causal. That interpretation strikes me as so implausible and uninteresting as not to merit serious attention.

20. See, for example, Aquinas, II *de Anima*, lect. 13, 383–98; III *de Anima*, lect. 4, 630; lect. 5, 645. I take this explanation of the impossibility of error with regard to the special objects of perception to be an alternative to the interpretation of Terry Irwin according to which infallibility requires one to adopt the anti-realist view that we see merely phenomenal colors; see Irwin, *Aristotle's First Principles* (Oxford: Clarendon Press, 1990), 314.

21. David Clemenson, "Seventeenth-Century Scholastic Philosophy of Cognition and Descartes' Causal Proof of God's Existence" (Ph.D. diss, Harvard University, 1991), chap. 2, 72–130.

22. Aquinas, *Summa Theologica*, Ia, q17, a2.

23. I have made a few changes in Clemenson's translation on 121–2 of his dissertation. It is from Ruvio's *Commentarii in libros Aristotelis De Anima: una cum dubiis et quaestionibus hac tempestate in scholis agitari solitis* (Lyon, 1620), 394.

24. Contrary to Clemenson, who asserts that "for Ruvio species can never misrepresent the objects that originally emitted them" (120), I take this to be Ruvio's explanation of how misrepresentation is possible.

25. Wilson, "Descartes on the Representationality of Sensation," 10.

26. It is important to emphasize, as Robert Adams has pointed out to me, that the view I am ascribing to Descartes still differs from the Aristotelian view, in that the Aristotelians attribute two modes of being to forms of things, but Descartes is attributing two modes of being to things themselves. So while an Aristotelian would say that the form of a horse, but not its matter, can exist objectively (or immaterially) in the soul, Descartes, who rejects the distinction between form and matter except in the case of human beings, is committed to saying that the horse itself can exist objectively in the soul.

It is equally important that this difference not be overemphasized. First, it seems to me that the heart of the Aristotelian theory of cognition is not that we have cognition of forms but that cognition involves the known or perceived object coming to exist in the soul objectively (or immaterially). And if one buys into the notion of objective being, I do not see why it is less reasonably attributed to substances than to forms. Therefore, I do not think that the account of cognition I am ascribing to Descartes is any less plausible than the Aristotelian account. Second, if one thinks Aristotelian substances should be identified with forms, then there is reason to infer that in attributing objective being to forms the Aristotelians, too, are attributing objective being to substances.

A second important way Descartes's theory of cognition differs from the Aristotelian theory is that he rejects Aristotelian species insofar as they are understood to be images transferred from the cognized object to the cognizing subject (AT VI 85, 112; CSM I: 153–4, 165). But the rejection of such a transference theory is fully consistent with his retention of the doctrine that the same thing can have two kinds of being, formal and objective.

27. Vere Chappell has endorsed the opposing view that Descartes thinks things having objective being have no other kind of being and that the sun itself does not have objective being. See "The Theory of Ideas," in *Essays on Descartes' Meditations*, ed. Amelie O. Rorty (Berkeley: University of California, 1986), especially 185–8. As I understand his reasons in support of his interpretation, they are primarily not textual but philosophical. He agrees that Descartes seems to commit himself to the view that the sun itself is the idea I have when I see the sun, but then he argues that this could not be Descartes's position because the sun is supposed to be an entity distinct from myself. I agree that Descartes thinks the sun as it exists formally is an entity distinct from myself, but, on the assumption that he also thinks the sun itself has two different kinds of existence, formal and objective, this is fully consistent with his thinking that the idea of the sun is the sun itself—it is just the sun as it exists objectively.

28. Here I disagree with the claim of Norman J. Wells, "Material Falsity in Descartes, Arnauld, and Suarez," *Journal of the History of Philosophy* 22 (1984): 34, that Descartes thinks "we cannot misapprehend on the pre-judgmental level of idea."

29. See Anthony Kenny, *Descartes: A Study of His Philosophy* (New York: Random House, 1968), 139–40.

30. For an important discussion of Descartes's distinction between an idea taken objectively and an idea taken materially (AT VII 8; CSM II 7), see Chappell, "Theory of Ideas." He endorses the view that Descartes thinks all ideas taken in the material sense are representative (185), but he also asserts that what they represent is the idea taken objectively (179). I am claiming that Descartes thinks that if cold were a privation, the idea of cold taken materially would still be as if of something, even though in that case there would be no idea of cold taken objectively.

31. Eileen O'Neill argues persuasively for this interpretation of eminent containment in "Mind-Body Interaction and Metaphysical Consistency: A Defense of Descartes," *Journal of the History of Philosophy* 25 (1987): 227–45.

32. This claim, that in the case of eminent containment there need not be any resemblance between what we perceive as if in the objects of our ideas and what is in those objects objectively, can be reconciled with Descartes's suggestion in the *Third Meditation* that all ideas are as if images because they are likenesses of the thing taken to be the object of the thought, by interpreting the *Third Meditation* suggestion to pertain to what the idea represents presentationally.

33. The Latin is "*Non tamen forte omnes tales omnino existunt, quales illas sensu comprehendo*" (AT VII 80). The crucial term '*omnino*' that justifies the inclusion of 'exactly' in translating the *Sixth Meditation* passage is missing in the definitions of formal and eminent containment in the *Replies to the Second Objections*.

34. The distinction between formal and eminent containment explains a remark Descartes makes in the *Third Meditation* that is commonly misinterpreted. After asserting that the idea of God is so clear and distinct and contains so much objective reality that we cannot be mistaken about the amount of objective reality contained in it, he continues: "This idea of a supremely perfect and infinite being is, I say, true in the highest degree; for although one may perhaps suppose that such a being does not exist, it nevertheless cannot be supposed that the idea of it exhibits nothing real to me, as I said before about the idea of cold" (AT VII 46; CSM II 31–2). Descartes has been construed to be distinguishing here between existence and reality (see, for example. Wilson, *Descartes*, 107–8). That is, he is construed as suggesting that although we can suppose that God does not exist, we cannot suppose that God is not real. But I think that what underlies his remark is not a distinction between existence and reality but something else. To suppose that such a being, a supremely perfect and infinite being, does not exist is to suppose that what is contained in my idea of God is not contained formally in its cause. To suppose that the idea of God exhibits nothing real is to suppose that what is contained in my idea of God is contained neither formally nor eminently in some cause. Descartes's point, on my interpretation, is that while it is impossible to suppose that the idea of God has no cause, it is possible to suppose that the cause of the idea of God is not God.

35. I am using the term 'inclination' to refer to what Descartes calls impulses: in the *Third Meditation* he describes our judgments based on sensations as resulting from natural impulses that push us in a certain direction (AT VII 38–9; CSM II 26–7), but in the *Sixth Meditation* he denies that there is a real or positive inclination in him to make these judgments—instead they are made without any rational basis (AT VII 83; CSM II 57).

36. That some aspects of our sensory ideas are contained formally in bodies while others are contained eminently is suggested in a different context by Wilson, "Descartes on the Origin of Sensation," *Philosophical Topics* 19 (1991): 300–301. To make such a suggestion, it should be noted, is implicitly to concede that our sensory ideas of cold, heat, and the like do contain objective reality.

37. I am using Wilson's translation here, except that I say "exhibited as sensations" where she has "exhibited as sensation."

38. In the previous section, I tried to point out that this inference is not unproblematic. What exists objectively in those ideas is contained either formally or eminently in bodies. If what exists objectively in those ideas is contained formally in bodies, it would follow that those bodies are their objects. But it is not clear that Descartes thinks that what exists objectively in the idea of cold, for example, could be contained formally in bodies. If what exists objectively in those ideas is contained eminently in those bodies, then the reply to Arnauld can be read as implying that Descartes would not count those bodies as the objects of the ideas—bodies would cause the ideas but would not be represented by them.

39. Wilson, *Descartes*, 118–9.

40. Again I use Wilson's translation.

41. Wilson, "Descartes on the Representationality of Sensation," 12–4.

42. This interpretation is not contradicted by his suggesting that color, cold, and the like are exhibited as (*ut*) sensations, whereas it would be if he had suggested, which importantly he did not, that they are exhibited as if (*tanquam*) sensations.

43. Wilson, "Descartes on the Representationality of Sensation," 13.

44. Descartes, on my interpretation, subscribes to what Sydney Shoemaker calls figurative projectivism regarding color, sound, heat and cold, and the like; "Qualities and Qualia: What's in the Mind?" *Philosophy and Phenomenological Research* vol. I, supp. (Fall 1990): 109–31. Figurative projectivism is the view that our experiences represent external objects as having properties that in fact belong to nothing. Shoemaker objects to figurative projectivism on the ground that "it is a mystery, to say the least, how the content of our experience can include reference to properties whose actual instantiation we have never experienced or had any other epistemic access to—properties we know neither 'by acquaintance' nor 'by description,' unless we have some sort of non-sensory acquaintance with a Platonic realm of uninstantiated properties" (127–8). But in defense of figurative projectivism, one should respond, it seems to me, as follows: to say that our ideas represent external objects as having certain properties does not entail that there are such properties, instantiated or uninstantiated. So there is no property to which we need have epistemic access. To suppose, for example, that our experience represents bodies as red need not entail that red is a property. All we need epistemic access to are things that are as if properties, and that is precisely what qualia are.

45. Versions of this essay were presented at the University of California, Riverside, and the University of California, San Diego. I would like to thank Robert Adams, Jonathan Bennett, Ned Block, Jill Buroker, John Carriero, Vere Chappell, David Glidden, Michael Hardimon, Pierre Keller, Alan Nelson, Lex Newman, Larry Nolan, Katya Rice, Marleen Rozemond, Alex Rosenberg, Kurt Smith, Judith Jarvis Thomson, Kenneth Winkler, and anonymous referees at the *Journal of the History of Philosophy* for many useful comments and suggestions. I would also like to acknowledge the financial support provided by a Fellowship for University Teachers from the National Endowment for the Humanities and by the University of California, Riverside.

Chapter 11

1. Steven Nadler, *Arnauld and the Cartesian Philosophy of Ideas* (Manchester: Manchester University Press, 1989). Other contemporary commentators besides Nadler who have interpreted various seventeenth-century philosophers as direct realists include Monte Cook, "Descartes' Alleged Representationalism," *History of Philosophy Quarterly* 4 (1987): 179–95, and "Arnauld's Alleged Representationalism," *Journal of the History of Philosophy* 12 (1974): 53–62; Thomas Lennon, "The Inherence Pattern and Descartes's *Idea*," *Journal of the History of Philosophy* 12 (1974): 43–52; John Yolton, "Ideas and Knowledge in Seventeenth-Century Philosophy," *Journal of the History of Philosophy* 13 (1975): 145–66, and *Perceptual Acquaintance from Descartes to Reid* (Minneapolis: University of Minnesota Press, 1984); and Elmar J. Kremer in his introduction to his translation of Arnauld's *On True and False Ideas* (Lewiston, Me.: Edwin Mellen Press, 1990), xxiii–xxxi.

2. See chapter 10.

3. Frank Jackson, *Perception* (Cambridge: Cambridge University Press, 1977), 149.

4. Ibid., 9.

5. I am not asserting that all representationalists believe that sensory illusion can be explained only by attributing to immediate objects of perception the properties that bodies appear to have but do not have.

6. Nicolas Malebranche, *The Search after Truth*, trans. Thomas M. Lennon and Paul J. Olscamp (Columbus: Ohio State University Press, 1980), 217.

7. Chapter 8 of Arnauld, *On True and False Ideas*, 37–9.

8. The main contenders in this debate are Richard Sorabji, "Body and Soul in Aristotle," *Philosophy* 49 (1974): 63–89, and Miles Burnyeat, "Is an Aristotelian Philosophy of Mind Still Credible? A Draft," in *Essays on Aristotle's De Anima*, ed. Martha C. Nussbaum and Amélie Oksenberg Rorty (Oxford: Clarendon Press, 1992), 15–26.

9. For a fuller account of Aquinas's views, see my "St. Thomas Aquinas on the Halfway State of Sensible Being," *The Philosophical Review* 99 (1990): 73–92.

10. Here I am opposing the explicit claim of Norman J. Wells in "Objective Reality of Ideas in Descartes, Caterus, and Suarez," *Journal of the History of Philosophy* 28 (1990): 33–61, and the implicit claim of Michael J. Costa in "What Cartesian Ideas Are Not," *Journal of the History of Philosophy* 21 (1983): 540, that ideas taken objectively are not representative. I am agreeing with Vere Chappell, "The Theory of Ideas," in *Essays on Descartes' Meditations*, ed. Amélie Oksenberg Rorty (Berkeley: University of California Press, 1986), 192–3, who argues that ideas taken objectively are representative.

11. Descartes also holds that things external to the mind cause our sensory ideas. So he seems committed to saying that the sun as it exists formally in the world causes the sun as it exists objectively in the mind.

12. See note 43 for discussion of a related and more threatening inconsistency in the view I attribute to Descartes.

13. A. O. Lovejoy, "Representative Ideas in Malebranche and Arnauld," *Mind* 32 (1923): 454.

14. Aquinas, *Summa Theologica*, Ia, q85, a2.

15. Aquinas, *Summa Theologica*, Ia, q85, a2.

16. Nadler, *Arnauld and the Cartesian Philosophy of Ideas*, 114.

17. Ibid., 10, 114–5.

18. Ibid., 11–2.

19. Frank Jackson, *Perception*, 7–8.

20. Nadler, *Arnauld and the Cartesian Philosophy of Ideas*, 132–3, also cites Jackson in arguing that direct realism is no better off than representationalism with respect to the epistemological problem of our knowledge of the external world.

21. Ibid., 133.

22. Jackson, *Perception*, 149.

23. Nadler, *Arnauld and the Cartesian Philosophy of Ideas*, 11.

24. Ibid., 112.

25. Ibid., 112–3. This characterization of the distinction is derived from Nadler's contrast of all representationalist theories with Arnauld's direct realism. Nadler does not explicitly assert that this characterization applies to all versions of direct realism, but such an inference is suggested by the context.

26. Ibid., 109. Nadler is quoting from *On True and False Ideas*, chap. 5, no. 6.

27. Ibid., 109.

28. Ibid., 118–22.

29. Ibid., 127–9.

30. Ibid., 84–6.
31. Ibid., 121, 175.
32. Yolton, *Perceptual Acquaintance*, 38–9.
33. Nadler, *Arnauld and the Cartesian Philosophy of Ideas*, 172.
34. Ibid., 143–4.
35. David Woodruff Smith and Ronald McIntyre, *Husserl and Intentionality: A Study of Mind, Meaning, Language* (Dordrecht: D. Reidel, 1982).
36. Nadler, *Arnauld and the Cartesian Philosophy of Ideas*, 145.
37. Smith and McIntyre, *Husserl and Intentionality*, 42.
38. I am indebted to the referee for a more succinct formulation of this point.
39. Nadler, *Arnauld and the Cartesian Philosophy of Ideas* 146.
40. Ibid., 161.
41. Ibid., 161–2.
42. There need be no regress here so long as the act of awareness is reflexive, that is, if it is by means of the very act of awareness that we are aware of the content intrinsic to the act.
43. I am attributing two views to Descartes and Arnauld that might seem inconsistent. First, I am claiming that they think the distinction between an idea taken materially as an act of awareness and an idea taken objectively as the content of that act of awareness is merely a distinction of reason. Second, I am claiming that they think an idea taken objectively is one and the same object as the object that exists in the external world, although not as it exists formally in the external world but, rather, objectively as it exists in the mind. Michael Ayers, "Ideas and Objective Being," in *The Cambridge History of Seventeenth-Century Philosophy*, ed. Daniel Garber and Michael Ayers (Cambridge: Cambridge University Press, 1998), vol. II, 1067, argues that if the distinction between the object as it exists formally in the world and as it exists objectively in the mind is also understood to be a distinction of reason, then the views are inconsistent because "on ordinary realist assumptions, there cannot be one thing, the idea, which is really identical *both* to the mode of thought [i.e. to the act of awareness] *and* to the real object." My way out of this dilemma is to assert that even though an idea taken objectively is one and the same object as the object that exists in the external world, the object as it exists objectively in the mind is really distinct from that same object as it exists formally in the external world. Descartes himself makes the same assertion (AT IV 350; CSMK 281). While I acknowledge that it might sound contradictory at first, I do not see that it is objectionable in the end to say that the same object can have two different ways of being such that as it exists in one way it is really distinct from itself as it exists in another way. The apparent contradiction is to say that things that are really distinct are nevertheless the same. But what this comes to is that two things that can exist separately turn out to be different ways of being the same thing, and I, agreeing with Descartes, do not see that that is contradictory.
44. For related criticisms of Nadler's interpretation of Arnauld, see Elmar J. Kremer, "Arnauld's Philosophical Notion of an Idea," in *The Great Arnauld and Some of His Philosophical Correspondents*, ed. Kremer (Toronto: University of Toronto Press, 1994), 98–101.
45. Antoine Arnauld, *Oeuvres* (Paris: Sigismond D'Arnay, 1781), vol. 39, 132.
46. Nadler, *Arnauld and the Cartesian Philosophy of Ideas*, 125–6.
47. An earlier version of this essay was presented at the University of California, Irvine, May 1995. I would like to thank Janet Broughton, John Carriero, Hannah Ginsborg, David Hills, Larry Nolan, Ed McCann, Alan Nelson, Calvin Normore, Daniel Warren, Gideon Yaffe, and the referee for *Pacific Philosophical Quarterly* for their helpful comments.

Chapter 12

This chapter is an excerpt from my essay "Three Dualist Theories of the Passions," *Philosophical Topics* 19 (1991): 153–200, in which I discussed the views of Descartes, Spinoza, and Leibniz.

1. Since Spinoza thinks on the one hand that there is only one substance and on the other hand that there are not just the two attributes thought and extension but infinitely many attributes, he is only tenuously labeled a dualist. But he does share with Descartes and Malebranche four doctrines that are fundamental to Cartesian dualism: (1) the universe is constructed out of substance(s) and modes; (2) thought and extension are attributes constituting the essence of substance; (3) thought and extension can each be clearly and distinctly conceived without the other; and (4) every mode is a mode of an attribute of substance. An argument for the opposing interpretation, that Spinoza's affinities are more with materialism than with dualism, is made by Edwin Curley, *Behind the Geometrical Method* (Princeton, N.J.: Princeton University Press, 1988), 73–8.
2. Spinoza, *Ethics*, IIP15.
3. Spinoza, *Ethics*, IIP13, IIIP12.
4. Descartes thus holds that action and passion are in some sense the same. I try to give an account of the nature of this identity in chapter 8.
5. Voss argues that the French term '*emotion*' is better translated as 'excitation' (V 138).
6. Aquinas, *De Veritate*, q26, a1, and *Summa Theologica*, IaIIae, q22, a1.
7. Aquinas seems to waver on whether corporeal passions should count as passions of the soul. In *De Veritate*, q26, a4, ad4, he denies that pain is a passion of the soul in the proper sense because it involves only apprehension on the part of the soul. But in *Summa Theologica*, IaIIae, q35, a1, he argues that pain is a passion of the soul because it pertains to the sensitive appetite.
8. Aquinas, *De Veritate*, q26, a2.
9. Aquinas, *De Veritate*, q26, a3, ad9.
10. Aquinas, *De Veritate*, q26, a2, a3.
11. Letter to More, August, 1649 (AT V 404–5; CSMK 382). In *Comments on a Certain Broadsheet* (AT VIIIB 348–9; CSM I 304); *Replies to the Fifth Objections* (AT VII 387; CSM II 265); and *Replies to the Sixth Objections* (AT VII 437–8; CSM II 295), he denies that something is received in the mind from external objects, but without making the stronger claim that nothing is ever transferred from one substance to another; see Margaret Wilson, "Descartes on the Origin of Sensation," *Philosophical Topics* 19 (1991): 293–323.
12. Aquinas, *Summa Theologica*, IaIIae, q22, a1.
13. In chapter 8, I argue that Descartes's theory of causation leads him to hold the view that sensations, passions, and appetites are aspects of modes that straddle mind and body. This is consistent, I claim, with his also maintaining that sensations might have been caused by something besides body. The fact that he defines the passions of the soul as being caused by the motion of the animal spirits raises a series of interesting, but unanswerable, questions. Does it imply that he distinguishes between passions and sensations in thinking that passions, unlike sensations, must be caused by something bodily? If so, would he say that a mode of thought that is a passion could have been something other than a passion, for example, an intellectual emotion, by being caused by something else? Or would he say instead that something that is a passion could not have been other than a passion? If so, could we, assuming the existence of the evil genius, always recognize a passion for what it is and hence infer the

existence of body, and indeed could we infer that we are united to a particular body, from the mere fact that we have passions?

14. Aquinas, *Summa Theologica*, IaIIae, q22, a2; *De Veritate*, q26, a3.

15. The original published version of this paragraph was confusing, so I have made some slight modifications.

16. There are various possible interpretations of Descartes's account of what it is to refer a perception to something, including these three: (1) it is to suppose that the perception is in the thing, that is, that the thing is the subject of the perception (AT VIIIA 32–3; CSM I 216–7); (2) it is to suppose that the perception is caused by the thing (see 30 n. 22)—and thus that we perceive the thing in having the perception; and (3) it is to suppose that the perception resembles a substance or some modification of substance. See A III 971 n. 1, and in a related context, Anthony Kenny, *Descartes: A Study of his Philosophy* (New York: Random House, 1968), 120. I am inclined to think that Descartes's view is best represented by (1) and that he thinks we often mistakenly refer perceptions to things other than what they should be referred to because we make the mistake of thinking that the cause of a perception is its subject. But I have been tempted to think that his view is best represented by (2), so that we are justified in referring a sensation to an object when our having that sensation is a legitimate ground for our being able to say that we sense the object causing it, because the sensation represents the object (see note 18). The problem with this reading is that it makes it hard to explain what it is to refer passions of the soul to the soul. But perhaps Descartes thinks that we do perceive the soul in having a passion, even if our passions are not caused by the soul.

17. All quotations from *The Passions* are from V.

18. Descartes uses the term 'represent' (*repraesentare*), as well as its synonym 'exhibit' (*exhibere*), in two distinct senses, as illustrated by his views about the idea of cold. On the one hand, he thinks that if cold is merely a privation, our idea of cold does not exhibit anything real (AT VII 232–4; CSM II 163). But on the other hand, he says that the idea of cold represents cold as a real and positive thing (AT VII 44; CSM II 30), and he is willing to speak in terms of the idea of cold exhibiting a positive being even on the assumption that cold itself is a privation (AT VII 234; CSM II 164). While Descartes thinks all ideas represent something in the second sense, that is, they are as if images of things or as if of something, he thinks it is in principle possible that an idea not represent anything in the first sense. It is according to the first sense of 'represent' that he says that the soul always receives its perceptions from things that are represented by them (AT XI 342; CSM I 335, a17) and that ideas that represent non-things arise from nothing (AT VII 44; CSM II 30). According to this sense of 'represent', an idea represents something when it is caused by it.

Since Descartes thinks we feel hunger as being in the body, I think he would say, using the second sense of the term 'represent,' that the sensation of hunger represents hunger as being in the body. But since he also thinks that hunger is a confused sensation of the body's state of needing food (AT VII 80; CSM II 56), I think he would say, using the first sense of the term 'represent,' that the sensation of hunger represents that state of the body. Now it seems to me to be true, and I see no reason why Descartes should disagree, that the sensation of hunger does not even seem to us to resemble the body's state of needing food, that is, it is not as if of that state. So an idea can represent something in the first sense (because it is caused by it) without representing it in the second sense, that is, without being as if of it. Such an idea that represents something in the first sense without representing it in the second sense is what Descartes would call a confused idea or representation of that thing; and he would also say

that an idea that represents something in the second sense without representing anything in the first sense is a confused idea.

19. The CSM translation includes a diagram that might easily be taken as attributing to Descartes a view he does not hold: that passions, in the narrow sense of the term, are caused only by the nerves and never by the fortuitous movement of the spirits (CSM I 338).

20. I make this claim in spite of the fact that his use of the Latin '*sive*' can be taken to suggest that he is, in this passage (AT VII 36–7), identifying volitions and emotions (*affectus*). But I think that in this passage '*sive*' must be read as indicating alternation, not apposition.

21. In speaking in terms of the passions' influence on the will, I do not mean to suggest that Descartes thinks they have a direct causal effect on the will but only that they dispose or incite the soul to will certain things. It is easy to read him as having the former in mind, but that would seem to be inconsistent with his definition of volitions as coming directly from the soul and seeming to depend on it alone.

22. Descartes says that because the purely intellectual emotions affect us more intimately, they have much more power over us than the passions that occur with them (AT XI 441–2; CSM I 381, a148). This might be read as saying that the purely intellectual emotions have a greater influence on the will than the passions of the soul, but that would seem to imply that the purely intellectual emotions are also passions and not themselves volitions, contrary to his remarks noted above in the letter to Chanut. An alternative reading, supported by the context of the remark, is that in speaking of the power that the purely intellectual emotions have over us, he is referring only to their influence on our happiness.

23. In the passage cited from the letter to Elizabeth, Descartes makes it clear that he thinks the image is formed by an action or decision on our part that is distinct from the prior judgment that the object is good or evil.

24. I am indebted to Stephen Voss here, but I am not yet convinced of his claim that Descartes thinks the excess of a passion might appear to be a passion (V 116 n. 20).

25. Plato, *Republic*, 436b.

26. Ferdinand Alquié comments that Descartes classifies souls into three categories according to their force: those who can conquer the passions with the proper weapons (true judgments), those who resist the passions by opposing them with other passions, and those who abandon themselves to present passions (A III 993 n. 1). Jon Elster makes a similar point in *Ulysses and the Sirens* (Cambridge: Cambridge University Press, 1988), 55. Alquié is wrong in identifying the proper weapons with true judgments, since Descartes says in art. 49 that a false judgment may be considered a proper weapon if the will continues to follow it when the passion that caused it is absent. But it is also far from clear to me that Descartes distinguishes between the second and third classes of souls. Instead, I think Descartes is more plausibly interpreted as defining a continuum of strength of soul: the weakest souls choose only what their present passion dictates, but most souls regulate some of their actions by following determinate judgments, and their strength is determined by their ability to follow these judgments and to resist the present passions that are opposed to them. When Descartes speaks of souls who never test the strength of their will because they never equip it to fight with its proper weapons, but only with the weapons that some passions provide for resisting other passions, I think he is referring to the weakest souls, and not, as Alquié reads him, to an intermediate class of souls. On my reading, Descartes thinks that to be weak is to follow a present passion and not a determinate judgment, and that resisting a passion by opposing it with another and abandoning oneself to a present passion are equally instances of following a present passion instead of a determinate judgment.

27. Alquié seems to contradict himself in two notes (A III 993 n. 1 and n. 2): according to n. 1, the truth of a soul's judgments is a factor in determining its strength in conquering the passions; according to n. 2, it is not.

28. In chapters 13 and 14, I make the contrary suggestion that such weakness does indicate a lack of freedom of will.

29. Fred Dretske, *Explaining Behavior* (Cambridge, Mass.: MIT Press, 1988), 42–3.

30. I would like to thank John Carriero, Joshua Cohen, Daniel Garber, Michael Hardimon, Judith Jarvis Thomson, Stephen Voss, and Kenneth Winkler for their many helpful comments on earlier drafts

Chapter 13

1. Rogers Albritton, "Freedom of Will and Freedom of Action," *Proceedings and Addresses of the American Philosophical Association* 59 (1985): 239–51.

2. Ibid., 242. His primary target is G. E. M. Anscombe, "Soft Determinism," in *Collected Philosophical Papers*, vol. II, *Metaphysics and the Philosophy of Mind* (Minneapolis: University of Minnesota Press, 1981), 163–72. See also Gary Watson, "Free Agency," *The Journal of Philosophy* 72 (1975): 205–20; and Carl Ginet, *On Action* (Cambridge: Cambridge University Press, 1990), 90.

3. Albritton, "Freedom of Will and Freedom of Action," 241. He actually says the converse—"What we propose to do is up to us, if our wills are free"—but I think that my attribution is justified by the context in which the assertion is made and also by its plausibility as an account of free will.

4. Ibid., 249.

5. I am indebted to John Haw for this point.

6. Descartes also includes among volitions that terminate in the body certain acts of paying attention, but for our purposes we need not consider them as a special class.

7. Plato, *Republic*, 436b; Aristotle, *Nicomachean Ethics*, 1102b–3a.

8. Sometimes when we refer to someone as strong-willed we mean that the person is stubborn. To be stubborn is to resist the voice of reason when its source is external.

9. Although the distinction between strength of will as it relates to the input side of the will and as it relates to the output side was suggested to me by Descartes's remarks, he himself seems to obscure the two conceptions. As we have just seen, he sometimes talks as if the passions operate through the will and are in conflict with other forces that also have influence on the will's decisions. At other times, he describes the passions as brain states that are a source of bodily action in conflict with our volitions. These are not inconsistent conceptions, and one could hold that the passions operate in both ways, but Descartes does not seem to recognize that they are different conceptions. Indeed, the passage just cited, which I construe as defining strength of will on the input side, could be construed as defining strength of will on the output side.

10. A first cause can be understood as the first link in a causal chain or the agent that initiates a causal process. Descartes recognizes four different types of first causes of the passions: (1) objects that move the senses, (2) impressions haphazardly encountered in the brain, (3) the temperament of the body, and (4) the action of the soul in deciding to think about something (AT XI 371–2; CSM II 349, a51).

11. Albritton does not speak of the will as if it were a decision-making or proposal-making entity: he does not say that if our wills are free, what we propose to do is up to them,

but that if our wills are free, what we propose to do is up to us. But I don't think much hinges on this choice of locution. Descartes could just as well have said that we are inclined only to those things that have some appearance of goodness and that we are drawn inevitably toward a clearly known good—claims that Albritton would find equally objectionable. It is noteworthy that Albritton, while he does not speak of the will as if it were a decision-making or proposal-making entity, uses the term "strength of will" and not "strength of soul," whereas Descartes, who does sometimes speak of the will as itself deciding to do things, uses the term "strength of soul" and not "strength of will."

12. Albritton, "Freedom of Will and Freedom of Action," 246.

13. Étienne Gilson, *La liberté chez Descartes et sa théologie* (Paris: J. Vrin, 1982), 293.

14. If I am correct that Albritton understands freedom of will as liberty of indifference, then Harry Frankfurt, "Concerning the Freedom and Limits of the Will," *Philosophical Topics* 17 (1989): 122, misses the mark when he accuses Albritton of saying things that pertain only to the power of willing, understood as what we are capable of willing, and not to freedom of will. Liberty of indifference is plausibly defined, as I have just done, in terms of what we are capable of willing. Part of Frankfurt's confusion seems to stem from the fact that he does not clearly distinguish the input from the output side of the will. He seems to identify what we are capable of willing with what our wills can do, which is a mistake if the latter is construed, as he construes it, as involving the efficacy of the will. He argues that the will does not seem powerful on the ground that "we are not aware, I think, of having in our wills a force or energy or strength so great that it cannot be defeated or effectively opposed" (123). The fact that a will is not especially strong on the output side goes nowhere toward showing that it does not have the liberty of indifference.

15. In his correspondence, Descartes might seem to embrace the account of freedom I am attributing to Albritton and to reject the account I am attributing to him. He says in a letter to Mesland: "perhaps others mean by 'indifference' a positive faculty of determining oneself to one or other of two contraries, that is to say, to pursue or avoid, to affirm or deny. I do not deny that the will has this positive faculty. Indeed I think it has it not only with respect to those actions to which it is not pushed by any evident reasons on one side rather than on the other, but also with respect to all other actions; so that when a very evident reason moves us in one direction, although morally speaking we can hardly move in the contrary direction, absolutely speaking we can. For it is always open to us to hold back from pursuing a clearly known good, or from admitting a clearly perceived truth, provided we consider it a good thing to demonstrate the freedom of our will by so doing" (AT IV 173; CSMK 245). In making these remarks, Descartes seems to want to draw a distinction between what is psychologically possible for us and what is morally possible. Once we have a clear and distinct idea of $2 + 2 = 4$, for example, it is not morally possible for us to refrain from assenting to it, but it is still psychologically possible for us to do so.

At the very least, this passage shows that Descartes's views on free will are not straightforward. But I do not think that this passage is the controlling text. That is, I do not think that we should reinterpret passages in which Descartes seems to be saying that we are psychologically compelled to assent to a clearly perceived truth or to pursue a clearly perceived good as instead making a point only about what we are morally compelled to do. Note that even in this passage, Descartes never goes so far as to imply that we can pursue a clearly perceived evil or assent to a clearly perceived falsehood. Even more telling, his explanation of how it is possible for us to fail to assent to a clearly perceived truth or to pursue a clearly known good seems to presuppose the very account of psychological compulsion at issue. He says that we

can do so "provided we consider it a good thing to demonstrate the freedom of our will by so doing." This suggests that we can psychologically avoid pursuing one good only in order to pursue a different good.

One is left with the impression that Descartes is trying to placate Mesland by endorsing something that sounds like the liberty of indifference while really sticking to his psychological compulsion theory. This impression is bolstered by a letter written to Mesland only a few months earlier in which Descartes explains our capacity to suspend our judgment by claiming that "the nature of the soul is such that it hardly attends for more than a moment to a single thing" (AT IV 115–6; CSMK 233). Here his point is that even though we are compelled by our clear and distinct ideas, we are compelled by them only so long as we are attending to them. Anthony Kenny presents a similar interpretation in *The Anatomy of the Soul: Historical Essays in the Philosophy of Mind* (Oxford: Blackwell, 1973), 109.

16. The phrase "a requirement of indetermination" is borrowed from Gary Watson, "Free Action and Free Will," *Mind* 96 (1987): 169.

17. Albritton, "Freedom of Will and Freedom of Action," 242.

18. Ibid., 250.

19. Ibid., 244.

20. Ibid., 245.

21. Ibid., 249.

22. Ibid., 248.

23. Ibid.

24. I have subsequently revised my interpretation of Albritton on this point. See "Freedom and Weakness of Will," *Ratio* 21 (2008): 42–54.

25. Watson, "Free Action and Free Will," 162.

26. In criticizing Albritton in a note ("Free Action and Free Will," 163 n. 28), Watson distinguishes between having obstacles placed in the will's path and having one's will pushed toward one path or another (as it might seem in cases of brainwashing or hypnotism). His distinction sounds like a more eloquent way of formulating my distinction between the output and input sides of the will. But there are two important differences. First, if his note is to be consistent with his rejection of internal obstacles to willing in the body of the text, he must be conceiving of the forces that push one's will toward one path or another as entirely external. So he must not be thinking of brainwashing and hypnotism as operating by generating emotions, desires, or other internal states that push the will toward one path or another, because that would involve internal obstacles to willing.

The second difference is that Watson suggests that having one's will pushed toward one path or another results in one's being "prevented from willing." That sounds contradictory to me. It is one thing to be caused to will something; it is another (incompatible thing) to be prevented from willing.

27. The English translations are from V.

28. Vere Chappell, "Descartes's Compatibilism," in *Reason, Will and Sensation: Studies in Descartes's Metaphysics*, ed. John Cottingham (Oxford: Clarendon Press, 1994), 186, has made the opposite claim that the kind of causal relation in virtue of which passions cause volitions is not transitive in the way necessary to infer that external things causing passions are also partial or contributing causes of the resulting volitions.

29. If this is the sort of thing Frankfurt has in mind in accusing Albritton of saying things that pertain more to the power of the will than to its freedom (see note 14), then there is some merit to his objection.

30. Watson, "Free Agency," 205–20.
31. Watson, "Free Action and Free Will," 150.
32. Ibid.
33. Ibid.
34. This essay was presented at the Sixty-eighth Annual Meeting of the American Philosophical Association, Pacific Division, Los Angeles, March 31, 1994. Vere Chappell and Gary Watson were commentators. What follows are my replies to Gary Watson's comments relevant to Descartes. For their complete comments and my complete replies see "Responses to Chappell and Watson," *Philosophical Studies* 77 (1995): 261–92.
35. I would like to thank John Carriero, Vere Chappell, John Fischer, David Glidden, Carl Hoefer, Pierre Keller, Genoveva Marti, Katerina Rice, Amélie Rorty, Alex Rosenberg, Ken Winkler, and Jon Wilwerding for their comments and suggestions. I would also like gratefully to acknowledge the financial support provided by an NEH Fellowship for University Teachers and by UC-Riverside.

Chapter 14

1. Here I disagree with Vere Chappell, "Descartes's Compatibilism," in *Reason, Will and Sensation: Studies in Descartes's Metaphysics*, ed. John Cottingham (Oxford: Clarendon Press, 1994), 179, who asserts that in strict speech Descartes thinks that only volitions are free and that no action that has both a mental and a corporeal part is free.
2. See Anthony Kenny, "Descartes on the Will," in *Cartesian Studies*, ed. R. J. Butler (New York: Barnes and Noble, 1972), 3–4.
3. See chapter 13.
4. Aquinas, *Summa Theologica*, IaIIae, q16 a1; q17 a3.
5. Aquinas, *Summa Theologica*, IaIIae, q14, a1.
6. Aquinas, *Summa Theologica*, IaIIae, q13, a1, ad2. Aquinas also suggests, however, in the same question that the judgment and the choice are one and the same act. Insofar as that act is a judgment, it is formally an act of the intellect, and insofar as it is a choice, it is materially an act of the will.
7. My understanding of the issues surrounding Descartes's account of our tendency to the good was improved considerably by the discussion in Lilli Alanen's seminar on Descartes at the University of California, Irvine, Spring Quarter, 1999.
8. This interpretation is defended by Kenny, "Descartes on the Will," 28–9; Tad M. Schmaltz, "Human Freedom and Divine Creation in Malebranche, Descartes and the Cartesians," *British Journal for the History of Philosophy* 2 (1994): 11–2; James M. Petrik, *Descartes' Theory of the Will* (Durango, Co.: Hollowbrook, 1992), 75–7; and Alan Nelson, "Descartes' Ontology of Thought," *Topoi* 16 (1997): 171–2. Presumably, it cannot be the case that we have a clear and distinct idea that pursuing z is the best thing to do in these circumstances and then subsequently have another clear and distinct idea that refraining from pursuing z is the best thing to do in these circumstances, since only one of those ideas can be true. We could, however, have both ideas, provided that one was not clear and distinct. Or we could have a clear and distinct idea that z is good and subsequently have a clear and distinct idea that z is not worth pursuing because there is something better to do.
9. Peter A. Schouls, *Descartes and the Enlightenment* (Kingston, Ontario, Canada: McGill–Queen's University Press, 1989), 95. He refers to this as the liberty of indifference as opportunity (97, 104). See also Schmaltz, "Human Freedom and Divine Creation," 10.

10. See Kenny, "Descartes on the Will," 23.

11. Thomas Aquinas, *Summa Contra Gentiles*, bk. 3b, ch. 94. Aquinas also uses the term 'infallibly' to refer to things that happen necessarily, but the point is that if one says that something happens infallibly and does not say that it happens necessarily, the implication is that it happens contingently.

12. Here I am disagreeing with Petrik, *Descartes's Theory of the Will*, 101, who uses the CSM translation of '*infallibiliter*' as 'inevitably' and takes the passage to show that the will is necessitated by evidence.

13. See Michael Murray, "Intellect, Will, and Freedom: Leibniz and His Precursors," *Leibniz Society Review* 6 (1996): 37–43.

14. Aquinas, *Summa Contra Gentiles*, bk. 3b, ch. 94.

15. See Chappell, "Descartes's Compatibalism," 185–6.

16. I am alluding to conversations I have had, since this passage is rarely discussed in the literature.

17. For a long time, I thought my only company in ascribing to Descartes the Aristotelian doctrine of the identity of action and passion was Leibniz, but John Carriero recently pointed out to me that Étienne Gilson does as well in *La liberté chez Descartes et la théologie* (Paris: Vrin, 1987), 257ff.

18. For a fuller discussion of this issue, see chapter 8.

19. Gilson, *La liberté chez Descartes et la théologie*, 258.

20. It is worth noting for purposes of comparison with Spinoza that Descartes apparently thinks it sufficient for a perception to count as an action that it depend principally on the soul and not entirely on the soul. This is why Descartes allows and Spinoza denies that acts of imagination can count as actions.

21. This constitutes a change from the views I expressed in chapter 12, 181 where I asserted that Descartes thinks every passion is a perception, a sensation, and an emotion. I am now inclined to doubt that he believes every passion is a sensation.

22. That is, all the other passions besides wonder, esteem, scorn, generosity, humility, veneration, and disdain.

23. To preserve the focus on representation, the translation of this article and the following one is from V 53–4.

24. This account thus resembles the account of wonder (art. 70) in which there is also no mention of a second pineal movement.

25. The CSM translation gives "*y font quelque effort*" as "have an influence on."

26. See chapter 12, 193. I had not yet reached the conclusion that art. 46 needs to be interpreted in light of art. 47.

27. The argument is actually more complicated. The mere fact that we have visual idea x and auditory idea y at the same time does not entail that there are two different pineal movements, because both ideas might be caused by the same pineal movement. But if we can have visual idea x and auditory idea y at one time and then have visual idea x and auditory idea z at another, then it would seem to follow that our visual ideas and our auditory ideas are caused by different pineal movements (unless more than one pineal movement can cause us to have the same visual idea).

28. In art. 165 (AT XI 456; CSM I 389) Descartes does allow that we can have the opposite passions of hope and apprehension at the same time by simultaneously representing different reasons to ourselves.

29. Augustine, *On Free Choice of the Will*, trans. Thomas Williams (Indianapolis, In: Hackett, 1993), bk. 3, ch. 25.

30. Aquinas, *Summa Theologica*, IaIIae, q6, a4.

31. David Hume, *Enquiries Concerning the Human Understanding and Concerning the Principles of Morals*, 2d ed., ed. L. A. Selby-Bigge (Oxford: Clarendon Press, 1966), sec. 8, pt. 1, 95.

32. Aristotle, *Nicomachean Ethics*, 1109b30–1111b3. See Brad Inwood, *Ethics and Human Action in Early Stoicism* (Oxford: Clarendon Press, 1985), 136.

33. The identification of self-control with freedom seems to me to be implicit in Plato's contrast of the philosopher with his opposite, the tyrant, who is characterized as enslaved; with the oligarchic person, whose better desires are not in complete control of his worse desires; and with the democratic person, whose alleged freedom is illusory. See *Republic*, 579b–80c, 554d, 561a–d, in *Plato: Complete Works*, ed. John M. Cooper and D. S. Hutchinson (Indianapolis: Hackett, 1997).

34. Christopher Gilbert, "Grace and Reason: Freedom of the Will in Augustine, Aquinas and Descartes" (Ph.D diss., University of California, Riverside, 1998), 297–8; also "Freedom and Enslavement: Descartes on Passions and the Will," *History of Philosophy Quarterly* 15 (1998): 187–8.

35. Aquinas, *Summa Theologica*, IaIIae, q6, a6, a7.

36. See Lisa Shapiro, "Cartesian Generosity," *Acta Philosophica Fennica* 64 (1999): 249–75.

37. I would like to thank Lilli Alanen, Alan Nelson, Lisa Shapiro, Byron Williston, and Gideon Yaffe for comments on previous drafts.

Index