CHAPTER 1

Neuroexistentialism

Third-Wave Existentialism

OWEN FLANAGAN AND GREGG D. CARUSO

Jean Paul Sartre (1946/2007) was correct when he said existentialism is a humanism. Existentialisms are responses to recognizable diminishments in the self-image of persons caused by social or political rearrangements or ruptures, and they typically involve two steps: (a) admission of the anxiety and an analysis of its causes, and (b) some sort of attempt to regain a positive, less anguished, more hopeful image of persons. What we call *neuroexistentialism* is a recent expression of existential anxiety over the nature of persons. Unlike previous existentialisms, neuroexistentialism is not caused by a problem with ecclesiastical authority, as was the existentialism represented by Kierkegaard, Dostoevsky, and Nietzsche,[1] nor by the shock of coming face to face with the moral horror of nation state actors and their citizens, as in the mid-century existentialism of Sartre and Camus.[2] Rather, neuroexistentialism is caused by the rise of the scientific authority of the human sciences and a resultant clash between the scientific and the humanistic image of persons. Specifically, neuroexistentialism is twenty-first-century anxiety over the way contemporary neuroscience helps secure in a particularly vivid

This chapter includes some passages from Flanagan (2002, 2009) and Flanagan and Barack (2010).

1. See Kierkegaard (1843/1983, 1843/1992, 1844/2014, 1846/1971, 1849/1998), Dostoevsky (1866/2001, 1880/1976), and Nietzsche (1882/1974, 1883/1975, 1886/1989, 1887/1969).

2. See Sartre (1943/1992, 1946/2007), Camus (1942/1989, 1942/1991), de Beauvoir (1949/1989).

way the message of Darwin from 150 years ago, that humans are animals—not half animal, not some percentage animal, not just above the animals, but 100 percent animal, one kind of primate among the 200 or so species of primates. A person is one kind of fully material being living in a material world. Neuroexistentialism is what you get when *Geisteswissenschaften* reaches the stage where it finally and self-consciously exorcizes the *geist* and recommends that no one should take seriously the Cartesian myth of the ghost in the machine (Ryle 1949/2001).

In this introduction, we explain in Section 1 what neuroexistentialism is and how it is related to two earlier existentialisms. In Section 2, we explain how neuroexistentialism makes particularly vivid the clash between the humanistic and the scientific image of persons. In Section 3, we discuss the *hard problem* (Chalmers 1996) and the *really hard problem* (Flanagan 2007) and how they relate to neuroexistentialism. In Section 4, we inquire into the causes and conditions of flourishing for material beings living in a material world, whose self-understanding includes the idea that such a world is the only kind of world that there is and thus that the meaning and significance of their lives, if there is any, must be found in such a world. We conclude in Section 5 by providing a brief summary of the chapters to follow.

1. THIRD-WAVE EXISTENTIALISM

Neuroexistentialism is the third wave of existentialism, defined here as a zeitgeist that involves a central preoccupation with human purpose and meaning accompanied by the anxiety that there is none. Aristotle's biological teleology is all about purpose—humankind, like all kinds, has a proper function (e.g., reason and virtue), which can be seen, articulated, and secured. And when you achieve it or have it you are *eudaimon*, a person who flourishes. Existentialists in the West are all post-Aristotelians who respond to the idea that eudaimonia is not enough, there should be something more, something deeper and transcendental but who are honest about the difficulty of finding where or what this deeper, transcendental thing that would make sense of life and provide meaning is or even what it could possibly be.

Traditionally, religion—specifically monotheism in the West—played the role of supplying the something more, that which would make human life more significant than, say, Aristotle thought was significance enough. In some respects, now is a time when we are "Back to Aristotle," back to a time when secularists raise the question of what life means or could mean if there is nothing more than this world, this life. Is a picture of persons as gregarious, rational, embodied, social animals who seek to flourish enough to supply content and significance to what such flourishing could come to? Can the rational, embodied image of humans give us meaning?

1.1. The First Two Waves: Foundational Anxiety and Human Nature Angst

Several centuries after the Protestant Reformation began in 1517, after much blood was spilled for religious reasons, Europe entered a secular age. Charles Taylor (1989) characterizes what it means to live in a secular age in a useful way: it is to live in an age when atheism is a real and not simply a notional possibility—which it is even biblically, for example, in the *Psalms*, where we meet "the fool." The religious wars were all between true believers. Infidels, heretics, and atheists were just monikers applied to theists who held different—but often nearby—views of God and his nature. By the Enlightenment, there were not just some people who were atheists, but some of them were very smart, thoughtful, and morally decent. Hume, Voltaire, Diderot were such people.

Dostoevsky and Kierkegaard, both religious, and Nietzsche not, lived in this secular age, and each explored in his own gripping way the anxiety wrought by entertaining the possibility that there is no God who shores up and makes sense of the human predicament. Either God as traditionally conceived is insufficient to provide grounding for the human project or he is too far away for us to comprehend his being. Nietzsche's view is of the first sort, and, of course, he famously predicts that people are too milquetoast to accept this reality and to find meaning on their own, and so, as the message gets out, an age of nihilism will commence. Similarly, when Dostoevsky allows Ivan, one of the *Brothers Karamozov* to speak of the possibility of atheism, to speak out loud about his foundational doubts, this causes his brother Dmitri to express the horrifying thought that "if there is no God then everything is permitted." Meanwhile, Kierkegaard entertains the twin thoughts that the bureaucratic Church is corrupt and that, in any case, the divine is beyond human understanding and may, at its most compelling spiritual moments, as in God's demands on Abraham, ask for actions that are inexplicable in normal ethical terms and that even require the suspension of both reason and ethics. These twin assaults on religiosity, on the existence or intelligibility of the divine, together constitute the impetus behind the first wave of existentialism.

If first-wave existentialism can be characterized as the displacement of ecclesiastical authority and a consequent anxiety over how to justify moral and personal norms without theological foundations, second-wave existentialism was a response to an overly optimistic thought that emerged from the European enlightenment. The Enlightenment offered the idea that even if there is no God, we can count on human goodness and human rationality to make sense of meaning and morals. In fact, there was hope in the aftermath of various political revolutions in the eighteenth century that reason and goodness were already leading to good democratic and egalitarian polities, which can both ground and create the conditions for true fraternity, solidarity, and

liberty. But this hope was dashed almost as soon as it was expressed by such horrifying realities as the scourge of colonialism, the fact that a Christian nation led by a democratically elected demagogue produced the Holocaust, and that the egalitarian projects of Stalin, Mao, and Pol Pot were as vicious and inhumane as the religious wars and Crusades. Second-wave existentialism culminated in the aftermath of the Second World War and expressed the genuine worry that humans might simply not be up to living morally or purposefully. Sartre, Camus, de Beauvoir, and Fanon maintain glimmers of hope in various liberatory projects at the same time as they worry that the quests for meaning, equality, gender justice, and racial justice may simply require ongoing revolutionary commitment. One cannot count on either God or human nature to secure these ends.

1.2. Third-Wave Existentialism

Both first- and second-wave existentialism continue to wash over modern consciousness, even as the precise nature and degree of skepticism over ecclesiastical and political authority fluctuates. The third wave, however, comes from a different source than the first two waves—it comes from science, rather than from questioning that undermines judgments about the honesty, goodness, and authority of religious and political leaders and institutions.

Conflicts between science and religion are familiar in the West—witness Galileo Galilei and Darwin, each undermining the authority of the Churches, but also even among nonbelievers by undermining a certain humanistic picture of persons. When one combines the neo-Darwinian picture of persons with advances in neuroscience, what one increasingly sees is the recognition in public consciousness that the mind is the brain and all mental processes just *are* (or are *realized in*) neural processes.[3] For certain intellectual elites, most philosophers, and many scientists, neo-Darwinism (including genetics, population genetics, etc.) combined with neuroscience (including cognitive and affective neuroscience, neurobiology, neurology, etc.) brings the needlepoint of detail to the picture of persons anticipated by and accepted in the physicalist or naturalist view of things—which, as such, has been avowed as the right metaphysical view ever since Darwin. But, for most ordinary folk and many members of the nonscientific academy, the idea that humans are animal

3. The claim that the "mind is the brain" should be understood in terms of what Eddy Nahmias calls *neuronaturalism* (see Chapter 14). As he describes it: "Neuronaturalism . . . is meant to be compatible with various forms of physicalism in philosophy of mind, including both non-reductive and reductive varieties (Stoljar 2009)." For instance, neuronaturalism does not commit one "to a reductionistic epistemological thesis that says the best explanations are always those offered by lower-level sciences (e.g., physics or neuroscience)" (Chapter 14, fn. 2).

and that the mind is the brain is destabilizing and disenchanting, quite possibly nauseating, a source of dread, fear, and trembling, sickness unto death even. Darwin's theory, on its own, has caused much dis-ease: witness the continuing debate in the United States about teaching Darwin's theory in schools without at least also teaching the allegedly equiplausible alternative(s), creationism or intelligent design. But neuroscience edges out the little space for the mind conceived as soul. And even if it does not turn out to be the case that the mind is, literally, the brain, plausible alternative views of the mind–brain relationship—such as "mind is a function of the brain" or "mind supervenes on the brain"—are no more likely to give comfort to those who wish to cling to a supernatural metaphysics. The official position of the Roman Catholic Church since the 1950s has been to accept Darwin with this caveat: When the speciation event(s) occurred that created *Homo sapiens*, then God, who had planned the whole thing, started inserting souls. This is considered a mature religious response to Darwin, but it is not. It is preposterous, and contemporary neuroscience shows why and how, every day in every way, as it removes all serious work that a soul might do—except, that is, the purported afterlife part. This scientific view results in the same feeling of drift and anchorless search for meaning that is a hallmark of all existentialisms and thereby constitutes the third wave of existentialism.

2. THE SCIENTIFIC AND MANIFEST IMAGES

Wilfrid Sellars famously wrote, "The aim of philosophy, abstractly formulated, is to understand how things in the broadest possible sense of the term hang together in the broadest possible sense of the term" (1963: 2). In this quote, we get the picture of the philosopher as a kind of synthesizer, or, if not that, one who keeps his eye on the whole so that the *Weltanschauung* of an age is not inconsistent, not fraught with incoherences. There is another image of the philosopher's vocation familiar from Socrates: the philosopher as gadfly. The two vocations can be linked up, especially since Plato's Socrates is all about the role of rational coherence and attention to destabilizing lacunae in the assumptions we make in living a good life overall.

Neuroexistentialism, like earlier existentialisms, is characterized by an anxiety arising from a clash between two or more sets of practices that contain internal to themselves certain commitments about the way things are, about metaphysics and ontology, and which are or at least seem inconsistent. The quickest way to understand the problem that is at the root of the cultural anxiety is to think once again about the conflict between the scientific image of persons and the humanistic image of persons.

The conflict between science and religion is well-known in the West. Galileo was imprisoned twice for his claim to have empirical evidence for

Copernicus's heliocentric theory and died under house arrest. Descartes suppressed *Le Monde*, his work on physics and astronomy, because of the treatment Galileo received. And Descartes's own work was put on the *Index* of the Roman Catholic Church thirteen years after his death, despite that fact that his Meditations contain two (still) famous proofs for the existence of God and three proofs for mind–body dualism, which he advertises as proofs for the immortality of the soul. The case of Darwin is the most familiar contemporary zone of this conflict, especially in America, where creationists and intelligent design advocates continue to argue about which theory is scientific and what should be funded by tax dollars and taught in schools. What the advocates of Darwin's theory of descent and modification by natural selection sometimes fail to see is that the opponents of the Darwinian view are right that there is a conflict between their antecedently held picture of persons and the one they ought epistemically to believe if Darwinians are right (i.e., if Darwin's theory is true). The stakes are extraordinarily high and pertain to how one understands oneself. The problem becomes understanding and facing directly the question of whether and how one is to find a conception of meaning and purpose for finite beings, literally animals, smart mammals, living in a material world.

Consider this list of commitments, which are typical of those who accept the humanistic picture of persons—which includes most of us. The *humanistic image* involves commitment to these beliefs:

- Free will
- Humans ≠ Animals
- Soul
- Afterlife
- Made in God's image
- Morality is transcendental
- Meaning is transcendental

The scientific image is a substantive one, not simply the negation of the humanistic image—one could read Darwin, Freud, contemporary naturalistic social science, philosophy, and neuroscience to get a feel for the positive picture—and as such it is an alternative to the humanistic image. But, for present contrastive purposes, it can be understood as denying the tenets that are constitutive of the humanistic image, and thus the *scientific image* asserts:

- No metaphysical free will
- Humans are completely animal
- No soul
- No afterlife
- Not made in God's image

- Morality is not transcendental
- Meaning is not transcendental

The scientific image is disenchanting and destabilizing for a number of familiar reasons. It denies that the mind is *res cogitans*, thinking stuff, and it denies that the mind conceived as brain could have any other fate than other smart mammals have: namely, death and decomposition.

It also rejects familiar conceptions of free will, such as the following one put forth by René Descartes in the seventeenth century:

> But the will is so free in its nature, that it can never be constrained. . . . And the whole action of the soul consists in this, that solely because it desires something, it causes a little gland to which it is closely united to move in a way requisite to produce the effect which relates to this desire. (Descartes 1649/1968)

And this conception held by Roderick Chisholm in the twentieth century:

> If we are responsible . . . then we have a prerogative which some would attribute only to God: each of us when we act, is a prime mover unmoved. In doing what we do, we cause certain things to happen, and nothing—or no one—causes us to cause those events to happen. (Chisholm 2002: 55–56)

Both of these quotes are expressing a libertarian conception of free will according to which we are capable of exercising *sui generis* kinds of agency and an unconditional ability to do otherwise. While such a conception of free will is often associated with dualistic and theistic thinking, second-wave existentialists like Sartre (no friend to theism) also embraced a libertarian conception of free will. In *Being and Nothingness* (1943/1992), Sartre rejects any and all forms of causal determinism—even the "psychological" determinism which finds the immediate causes of action and choice in the desires and beliefs of agents (see Morriston 1977). Sartre's existential freedom, or so-called radical freedom, maintains that *I* (as a responsible agent) am not simply another object in the world. As a human being, I am always open to (and engaged with) things in the world: that is what Sartre means by saying that I am a "being-for" itself (rather than a "being-in-self," which is when one allows oneself to be determined by facticity). According to Sartre, how I exist in the world is a function of my free decision to create meaning out of the facts with which I am confronted. Hence, for second-wave existentialists, the *existence of free will is disturbing* since I must take full responsibility for the meaning of the world in which I exist.

For third-wave existentialists, on the other hand, the reverse is the case: the possibility that we *lack libertarian free will* is what is disturbing and causes in us existential anxiety. As the brain sciences progress and we better understand

the mechanisms that undergird human behavior, the more it becomes obvious that we lack what Tom Clark (2013) calls "soul control." There is no longer any reason to believe in a nonphysical self which controls action and is liberated from the deterministic laws of nature—a little *uncaused causer* capable of exercising counter-causal free will. While most naturalistically inclined philosophers, including most compatibilists, have long given up on the idea of soul control, eliminating such thinking from our folk psychological attitudes may not be so easy and may come at a cost for some. There is some evidence, for example, that we are "natural born" dualists (Bloom 2004) and that, at least in the United States, a majority of adults continue to believe in a nonphysical soul that governs behavior (Nadelhoffer 2014). To whatever extent, then, such dualistic thinking is present in our folk psychological and humanistic attitudes about free will and moral responsibility, it is likely to come under pressure and require some revision as the brain sciences advance and this information reaches the general public.[4]

The scientific image is also disturbing for other reasons. It maintains, for example, that the mind is the brain (see fn. 4), that humans are animals, that how things seem is not how they are, that introspection is a poor instrument for revealing how the mind works, that there is no ghost in the machine, no Cartesian theater where consciousness comes together, that our sense of self may in part be an illusion, and that the physical universe is the only universe that there is and it is causally closed. Many fear that if this is true, then it is the end of the world as we know it, or knew it under the humanistic regime or image. Neuroexistentialism is one way of expressing whatever anxiety comes from accepting the picture of myself as an animal (the Darwin part) and that my mind is my brain, my mental states are brain states (the neuro-part). Taken together, the message is that humans are 100 percent animal. One might think that that message was already available in Darwin. What does neuroscience add? It adds evidence, we might say, that Darwin's idea is true and that it is, as Daniel Dennett says, "a dangerous idea" (1995). Most people in the West still hold on to the idea that they have a nonphysical soul or mind. But as neuroscience advances, it becomes increasing clear that there is no place in the brain for *res cogitans* to be nor any work for it to do. The universe is causally closed, and the mind is the brain.

The next step, a consequence of the general undermining of the idea there is any nonphysical, nonnatural furniture in the universe, is the vertigo caused by the denial that morality, well-being, and life's meaning have anything outside

4. Predicting what revisions will be made is difficult. It is possible that relinquishing the humanistic idea of "soul control" and libertarian freedom will cause some to accept free will skepticism (see Pereboom and Caruso, Chapter 11). But it is also possible that some might adopt a *free-will-either-way* strategy causing them to accept compatibilism on pragmatic grounds, fearing the alternative.

the natural world to shore them up. Relinquishing the last reserve of an extrabodily foundation for meaning and morality is the culmination of a process which started in the nineteenth century with the recognition of the inability of ecclesiastical authority to provide such a foundation and continued in the middle of the twentieth century with the rejection of the polity as such a source. If the soul does not exist, and it does not, then where do we derive our morals, our meaning, and our well-being? This problem is the "really hard problem," the special problem for those of us living in the age of brain science; of making sense of the nature, meaning, and purpose of our lives given that we are material beings living in a material world.

3. THE HARD PROBLEM AND THE REALLY HARD PROBLEM

The hard problem is ancient and turns on intuitions that, for centuries and across many different traditions, support dualism. Mind seems nonphysical, so it is. It is simply too hard to explain how agency, as it seems from the first-person perspective, could be analyzed as, or reduced to, physical processes. Here, the idea is that it is too hard to imagine how we could reduce mind to brain, so we can't. Thus we need metaphysical dualism.

In recent decades, as the physicalist view of the universe extends its reach to persons, and, despite dualist intuitions, mind-science advances under the guidance of the regulative idea that the mind is the brain, the intuition returns in two guises. First, there is the old intuition that mental events don't seem like brain events, followed by disbelief at the idea that some think they might be or in fact are brain events. So we are asked to wonder: How is consciousness possible in a material world? How could subjective experience arise/emerge from brain tissue? How could subjectivity arise from objective physical states of affairs? The questions are supposed to strike the audience as eternally bewildering and thus as questions that show that physicalism is not a view that we can really comprehend. Second, there is the intuition that, even if mental events are brain events, our concepts of the mental cannot be mapped onto or reduced to physical concepts, and this perhaps because mental concepts carry connotations of nonphysicality. Fair enough, but this conceptual problem is not a metaphysical problem. The morning star is the evening star, and it is not a star but, in fact, the planet Venus. All three concepts refer to the same heavenly body, but they mean different things. If my poem says that your eyes are like the morning star, I cannot replace those words with "evening star" and get the same meaning. So what? This explanatory or conceptual gap problem is commonplace when we are learning a new way of speaking. The various difficulties associated with treating the hard problem are to be expected when major conceptual change is called for, as it is by the scientific image of persons. From the perspective of the scientific image, the question of

how subjectivity is realized in persons with brains is a problem for the human sciences, most especially neuroscience.

Assuming that the details of the answer to the question of how consciousness is realized is to be given, and is already being given, by neuroscience, a second problem remains—the really hard problem (see Flanagan 2007). It can be stated in these more or less equivalent forms: How—given that we are natural beings living in a material world and given that consciousness is a natural phenomenon—does human life mean anything? What significance, if any, does living our kind of conscious life have?

The really hard problem can be put more forcefully, in a way that enhances the already felt anxiety: Is there anything upbeat and truthful we can say in this post-Darwinian age about the meaning of life or about the meaning(s) of lives given that:

- We are short-lived animals.
- When we are gone, we are gone for good (i.e., forever).
- Even our species is likely to be short-lived, certainly not eternal.

One difference between the hard problem of consciousness and the really hard problem of meaning in a material world is that the first is a problem in science, whereas the second is a problem about how we humans can best understand our situation. Given that we are material beings living in a material world and given that we have every reason to believe that there is only this one life and then we are gone, gone for good, gone for all eternity, why and how does anything matter? This is a question that we are asked to answer with only the resources available, given a materialistic picture of things, but it is not itself a purely scientific question. It asks us what attitude, what philosophical attitude, we ought to adopt given what we think to be the true facts about our situation, our predicament.

4. THE NATURALISTS' RESPONSE TO THE NEUROEXISTENTIALIST PREDICAMENT

Historically, answers to questions of value and meaning were answered metaphysically and/or theologically. The humanistic image insists that humans are not animals, the mind is not the brain, and that meaning and morals need to be grounded—propped up—transcendentally. The scientific image says that humans are animals, the mind is the brain, and that there are no transcendental sources for meaning and morals. What there is, and all there is, is the natural world. Neuroexistentialism involves an acknowledgment of this conflict and a recognition of the anxiety it creates. It also involves an attempt to regain a positive, less anguished, more hopeful image of persons. While the

contributors to this volume will likely disagree on the exact nature of that positive response, all share a fundamental commitment to naturalism and all hold that a proper response to our neuroexistentialist predicament should draw on insights from the behavioral, cognitive, and neurosciences.

During the Enlightenment, we saw the beginning of a movement toward naturalism, according to which morals and meaning are to be analyzed and understood psychologically—really in terms of history and the other human sciences more broadly, not metaphysically or theologically. Over the past few centuries, this movement has continued, and, most recently, we have seen the rise of moral psychology and other interdisciplinary attempts to understand moral development and human values, norms, judgments, and attitudes naturalistically. Contemporary moral psychology, for example, is methodologically pluralistic: it aims to answer philosophical questions about competing ethical perspectives, the structure of character, and/or the nature of moral reasoning, but in an empirically responsible way (see Doris and Stich 2006; Flanagan 1991, 2017). There is, in such an approach, a fundamental commitment to naturalism and the belief that moral philosophy should pay more attention to psychology and philosophy of mind (Flanagan 1991, 2017; Harman 2009).

If mind, morals, and the meaning of life are to be understood as problems inside the naturalistic view of things, not problems that require transcendental sources, then this three-part question arises: (1) How do we combine and harness the growing knowledge and insights of the human sciences with (2) the universal existential concern with meaning and flourishing in order to yield (3) a truthful, liberating, enlightened picture of our problems and our prospects as meaning-finders and meaning-makers. Understood this way, the central question becomes: Are there naturalistic resources that can quell the anxiety produced by the ascendancy of the scientific image generally and, specifically, the picture that comes from combining neo-Darwinism with neuroscience, which produces the new and nerve-racking anxiety associated with neuroexistentialism?

One promising approach is to pursue a kind of descriptive-normative inquiry into the causes and conditions of flourishing for material beings living in a material world whose self-understanding includes the idea that such a world is the only kind of world that there is and thus that the meaning and significance of their lives, if there is any, must be found in such a world. We can call such an inquiry *eudaimonics* (Flanagan 2007, 2009). Aristotle famously said that when he asked his fellow Greeks what they want (if anything) for its own sake, not for the sake of anything else, they all answered *eudaimonia*. Eudaimonia is best translated as *flourishing* or *fulfillment*, not as happiness. There are, of course, numerous ways one could go about developing a naturalistic eudaimonics, and this collection includes several different proposals on how we may be able to achieve eudaimonia and preserve meaning, morals, and purpose in a material world. Whether or not these proposals succeed, we leave

it to the reader to decide. But we can say that neuroexistentialism, at least in its constructive stage, attempts to make use of the knowledge and insights of the behavioral, cognitive, and neurosciences to satisfy our existential concerns and achieve some level of flourishing and fulfillment.

In the following chapters, some of the world's leading philosophers, neuroscientists, cognitive scientists, and legal scholars tackle our neuroexistentialist predicament and explore what the mind sciences can tell us about morality, love, emotion, autonomy, consciousness, selfhood, free will, moral responsibility, law, the nature of criminal punishment, meaning in life, and purpose. The following section provides a brief summary of the chapters to come.

5. SUMMARY OF CHAPTERS

The book is divided into four main parts: Part I, Morality, Love, and Emotion; Part II, Autonomy, Consciousness, and the Self; Part III Free Will, Moral Responsibility, and Meaning in Life; and Part IV Neuroscience and the Law. While there is some overlap among the various sections—as would be expected in a collection like this—the four parts provide a rough and fairly accurate grouping of topics, one that identifies and highlights the key existential areas of concern.

Part I begins with Patricia Churchland exploring the impact of social neuroscience on moral philosophy. One tradition in moral philosophy depicts human moral behavior as unrelated to social behavior in nonhuman animals. Morality, on this view, emerges from a uniquely human capacity to reason. By contrast, recent developments in the neuroscience of social bonding suggest instead an approach to morality that meshes with ethology and evolutionary biology. According to Churchland, the basic platform for morality is attachment and bonding and the caring behavior motivated by such attachment. Churchland argues that oxytocin, a neurohormone, is at the hub of attachment behavior in social mammals and probably birds. Not acting alone, oxytocin works with other hormones, neurotransmitters, and circuitry adaptations. Among its many roles, oxytocin decreases the stress response, making possible the trusting and cooperative interactions typical of life in social mammals. Although all social animals learn local conventions, humans are particularly adept social learners and imitators. On Churchland's account, learning local social practices depends on the reward system because, in social animals, approval brings pleasure and disapproval brings pain. Subcortical structures, she argues, are the key to acquiring social values, and quite a lot is known about how the reward system works. Acquiring social skills also involves generalizing from samples so that learned exemplars can be applied to new circumstances. Problem-solving in the social domain gives rise to ecologically relevant practices for resolving conflicts and restricting within-group

competition. Churchland argues that, contrary to the conventional wisdom that explicit rules are essential to moral behavior, norms are often implicit and picked up by imitation. This hypothesis connects to a different, but currently unfashionable tradition, beginning with Aristotle's ideas about social virtues and David Hume's eighteenth-century ideas concerning "the moral sentiment."

In Chapter 3, Maureen Sie builds on Churchland's account and argues that our nature as loving beings can explain our nature as moral beings. First, she points out that scientists have discovered the brain circuits and chemistry that are involved in not only regulating male and female sexuality and feelings of attachment but also in our sociability more broadly speaking, such as how we interact with strangers. Second, love and morality seem to be similar phenomena in many ways, and some of the properties that philosophers have traditionally struggled to understand in the case of morality seem much easier to explain when love is its source. She goes on to argue that if we can make sense of the claim that "love is the source of morality," then we would have a naturalized account of morality that leaves space for a variety of philosophical views. In an attempt to develop such an account, she distinguishes several kinds of loves and explains how they relate to different moral dimensions of our existence. She takes as her starting point C. S. Lewis's work on the subject. She elaborates on this framework in relation to the claim that love is the source of morality but completely abandons his Christian framework and renames his fourth kind of love "kindness." She argues that recent findings in affective neuroscience suggest that this fourth is a natural kind of love. She discusses the dynamics of Lewis's account, showing that each of the loves that he distinguishes requires the fourth love (kindness) to keep them from taking a nasty turn. She concludes by explaining why the fourth love that Lewis distinguishes actually fits the naturalist picture quite well if the recent finding that oxytocin is involved in our trusting interactions with strangers is correct.

In Chapter 4, Paul Henne and Walter Sinnot-Armstrong explore whether neuroscience undermines morality. Recent findings in neuroscience and psychology suggest that many kinds of moral judgments are deeply flawed—they are emotional, inconsistent, based on our distant evolutionary past, susceptible to racial and gender biases, and so on. Henne and Sinnot-Armstrong distinguish, analyze, and assess the main arguments for neuroscientific skepticism about morality and argue that neuroscience does not undermine *all* of our moral judgments. After quickly addressing several skeptical challenges, they focus the majority of their attention on one argument in particular—the idea that neuroscience and psychology might undermine moral knowledge by showing that our moral beliefs result from unreliable processes. They argue that the background arguments that are needed to bolster the main premise fail to support it in the way that is required for the argument to succeed. They conclude that the overall issue of neuroscience undermining morality is

unsettled—we need more scientific research and philosophical reflection on this topic. Still, they contend, we can reach some tentative and qualified conclusions. First, neuroscience and psychology do not undermine all moral judgments as such, but they still might play an ancillary role in an argument that undermines some moral judgments. Second, they might lead us to think about moral judgments in new ways, such as by suggesting new divisions among moral judgments. Neuroscience is, then, "not a general underminer—but a trimmer and a categorizer." In these ways, "neuroscience can play a constructive role in moral theory, although not by itself. In order to make progress, neuroscience and normative moral theory must work together."

In Chapter 5, Edmund T. Rolls builds on evidence and theories he developed elsewhere about the neural base of emotions and explores what they can tell us about purpose, meaning, and morals. He begins by noting that one process to which "purpose" can refer is that genes are self-replicating. Another process to which "purpose" can apply, he contends, is that genes set some of the goals for actions. These goals are fundamental to understanding emotion. Another process to which "purpose" can apply is that syntactic multistep reason provides a route for goals to be set that are to the advantage of the individual, of the phenotype, and not of the genes. He proceeds to argue that meaning can be achieved by neural representations not only if these representations have mutual information with objects and events in the world, but also by virtue of the goals of the "selfish" genes and of the individual reasoner. This, he proposes, provides a means for even symbolic representations to be grounded in the world. He concludes by arguing that morals can be considered as principles that are underpinned by (the sometimes different) biological goals specified by the genes and by the reasoning (rational) system. Given that what is "natural" does not correspond to what is "right," he argues that these conflicts within and between individuals can be addressed by a social contract.

Jesse Prinz concludes Part I with his chapter on *moral sedimentation*. He begins by noting that existentialism is often regarded as a philosophy of radical freedom—that is, leading existentialists emphasized the human capacity for choice and self-creation. At the same time, there is a countercurrent in existentialist thought that calls freedom into question. This countercurrent draws attention to the ways in which behavior is determined by forces outside of our control. This is especially vivid in the moral domain. Prinz, for instances, explains that beginning with Nietzsche's claim that Christians are self-deceived and extending through feminist and decolonial perspectives within postwar existentialism, we find key authors pointing to ways in which deeply held values get shaped by social forces. Borrowing a term from phenomenology, Prinz calls this phenomenon "sedimentation." After tracing the idea of sedimentation and related concepts in existentialist thought, with special emphasis on the moral domain, Prinz argues that recent work in neuroscience, psychology, and other social sciences adds support to the thesis

that we are vulnerable to sedimentation. He concludes by considering various tactics against sedimentation that have been proposed, arguing that some of the more prominent historical tactics are problematic while also pointing to some alternatives.

Part II begins with Neil Levy's chapter on "Choices Without Choosers: Toward a Neuropsychologically Plausible Existentialism." While existentialists are often accused of having painted a bleak picture of human existence, Levy contends that, in the light of contemporary cognitive science, there are grounds for thinking that the picture is not bleak enough. For second-wave existentialists, we live in a meaningless universe, condemned to be free to choose our own values, which have no justification beyond the fact that we have chosen them. But second-wave existentialists remained confident that there was someone, an agent, who could be the locus of the choice we each confront. Contemporary cognitive science shakes our faith even in the existence of this agent. Instead, it provides evidence that seems to indicate that there is no one to choose values; rather, each of us is a motley of different mechanisms and processes, each of which lack the intelligence to confront big existential questions and each pulling in a different direction. According to Levy, while there are grounds for thinking that the picture is in some ways bleaker than the existentialists suggested, he argues that it is not hopeless. The unified self that serves as the ultimate source of value in an otherwise meaningless universe may not exist, but we can each impose a degree of unity on ourselves. The existentialists were sociologically naïve in supposing a degree of distinction between agents and their cultural milieu that was never realistic. Agents are enculturated, and a realistic existentialist will recognize that. But they will also recognize that we are embodied and embedded agents: a biologically realistic picture will understand us as agents always already in process of unification but never achieving it, and always already in negotiation with values rather than choosing them. We are thrown beings: thrown into history, into culture, and into a biological and evolutionary history which we never fully understand and which we can do no more than inflect, all without foundations and lacking even the security of knowing the extent to which we choose or even what we choose. Existentialism must face up to an insecurity that is ontological and epistemological as much as it is axiological.

In Chapter 8, Shaun Gallagher, Ben Morgan, and Naomi Rokotnitz explore the notion of *relational authenticity*. They argue that to understand existential authenticity it will not do to return to the individuality celebrated by classical existentialism. Nor is it right to look for a reductionist explanation in terms of neuronal patterns or mental representations that would simply opt for a more severe methodological individualism and a conception of authenticity confined to proper brain processes. Rather, they propose, we should look for a fuller picture of authenticity in what they call the "4Es"—the embodied, embedded, enactive, and extended conception of mind. They argue that one requires the

4Es to maintain the 4Ms—mind, meaning, morals, and modality—in the face of reductionistic tendencies in neurophilosophy. The 4E approach, they contend, gives due consideration to the importance of the brain taken as part of the brain-body-environment system. It incorporates neuroscience in its explanations, but it also integrates important phenomenological-existentialist conceptions that emphasize embodiment (especially following the work of Merleau-Ponty) and the social environment. More specifically, they argue that phenomenological conceptions of intersubjectivity, or, in existentialist terms, being-with (*Mitsein*) and being-for-others, should play significant roles in our rethinking of authenticity.

In Chapter 9, Walter Glannon writes: "The existential angst of neuroscience is not the result of having to choose in the absence of religious or cultural models. Rather, the angst results from the idea that the subjectivity and conscious choice that presumably define us as persons can be completely explained—if not explained away—by neural and psychological factors to which we have no access." Neuroscience challenges our beliefs about agency and autonomy because it seems to imply that as conscious beings we have no control of our behavior. Most brain processes, for instance, are not transparent to us. We also have no direct access to the efferent system and only experience the sensorimotor consequences of our unconscious motor plans. Nevertheless, Glannon argues that the fact that unconscious processes drive many of our actions does not imply that conscious mental states have no causal role in our behavior and that we have no control over it. He argues that some degree of unconscious neural constraint on our conscious mental states is necessary to modulate thought and action and promote flexible behavior and adaptability to the demands of the environment. He maintains that a nonreductive materialist account of the mind–brain relation makes it plausible to claim that mental states can cause changes in physical states of the brain. He examines some psychiatric and neurological disorders and attempts to shows how the conscious mind can have a causal role in the etiology of these disorders as well as in therapies to control them and behavior more generally. He argues that lower level unconscious neural functions and higher level conscious mental functions complement each other in a constant process of bottom-up and top-down circular causal feedback that enables interaction between the organism and the external world. He concludes that the motivational states behind our actions and the meaning we attribute to them cannot be explained entirely by appeal to neural mechanisms. Although the brain generates and sustains our mental states, he argues that it does not determine them and leaves enough room for individuals to "will themselves to be" through their choices and actions.

In Chapter 10, Peter U. Tse describes various developments in neuroscience that reveal how volitional mental events can be causal within a physicalist paradigm and argues that two types of libertarian free will are realized in the

human brain. He begins by attacking the logic of Jaegwon Kim's exclusion argument, which he specifies as maintaining that mental information cannot be causal and must be epiphenomenal because particle-level physical-on-physical causation is sufficient to account for apparent causation at all higher levels. Tse maintains that the exclusion argument falls apart if indeterminism is the case. He then proceeds to build an account of how mental events are causal in the brain. He takes as his foundation a new understanding of the neural code that emphasizes rapid synaptic resetting over the traditional emphasis on neural spiking. Such a neural code is an instance of "criterial causation," which requires modifying standard interventionist conceptions of causation. Tse argue that a synaptic reweighting neural code provides a physical mechanism that accomplishes downward information causation, a middle path between determinism and randomness, and a way for mind/brain events to turn out otherwise. This new view of the neural code, Tse argues, also provides a way out of self-causation arguments against the possibility of mental causation. Finally, Tse maintains that it is not enough to simply have "first-order free will." That is, only if present choices can ultimately lead to a chooser becoming a new kind of chooser—that is, only if there is a second-order free will or *meta-free will*—do brains have the capacity to both have chosen otherwise and to have meta-chosen otherwise. Tse concludes by discussing how the brain can choose to become a new kind of brain in the future, with new choices open to it than are open to it now.

Part III begins with Derk Pereboom and Gregg D. Caruso's chapter on *hard-incompatibilist existentialism*. In it, they explore the practical and existential implications of free will skepticism, focusing primarily on punishment, morality, and meaning in life. They begin by considering two different routes to free will skepticism. The first denies the causal efficacy of the types of willing required for free will and receives its contemporary impetus from pioneering work in neuroscience by Benjamin Libet, Daniel Wegner, and John-Dylan Haynes. The second, which is more common in the philosophical literature, does not deny the causal efficacy of the will but instead claims that, whether this causal efficacy is deterministic or indeterministic, it does not achieve the level of control to count as free will by the standards of the historical debate. They argue that while there are compelling objections to the first route, the second route to free will skepticism remains intact. They then go on to argue that free will skepticism allows for a workable morality and, rather than negatively impacting our personal relationships and meaning in life, may well improve our well-being and our relationships to others since it would tend to eradicate an often destructive form of moral anger. They conclude by arguing that free will skepticism allows for adequate ways of responding to criminal behavior—in particular, incapacitation, rehabilitation, and alternation of relevant social conditions—and that these methods are both morally justified and sufficient for good social policy. They present and defend their

nonretributive alternative—the quarantine model, which is an incapacitation account built on the right to self-protection analogous to the justification for quarantine—and respond to recent objections to it by Michael Corrado, John Lemos, and Saul Smilansky.

In Chapter 12, Michael Gazzaniga tells us: "Let's face it. We are big animals with brains that carry out every single action automatically and outside our ability to describe how it works. We are a soup of dispositions controlled by genetic mechanisms, some weakly and some strongly expressed in each of us." Yet, he tells us there is some good news too: "We humans have something called the *interpreter*, located in our left brain, that weaves a story about why we feel and act the way we do. That becomes our narrative, and each story is unique and full of sparkle." He wonders, what's wrong with being that—just that? After all, being self-aware narrators is what brains do. Gazzaniga proceeds to explore the concepts of free will and moral responsibility in light of such facts, arguing that we all remain personally responsible for our actions because responsibility arises out of each person's interaction with the social layer we are embedded in. "Responsibility is not to be found in the brain," he concludes, rather it is "a needed consequence of more than one individual interacting with another."

In Chapter 13, Farah Focquaert, Andrea L. Glenn, and Adrian Raine return to the issue of free will skepticism and criminal behavior. They ask how we should, as a society, deal with criminal behavior in the current era of neuroexistentialism. They further ask if our belief in free will is essential to adequately addressing criminal behavior or if neurocriminology could offer a new way of addressing crime without the need to resort to backward-looking notions of *moral* responsibility and guilt. They begin by noting that the kind of free will that could justify retributive punishment based on a criminal's *moral* responsibility needs to be the "ultimate" kind—the kind which would allow an individual to behave differently given the exact same conditions. According to free will skepticism, however, we are not free in the sense that is required for *moral* responsibility (i.e., the basic desert sense), and we therefore lack the responsibility that is needed to justify any kind of punishment that draws on revenge or desert. They proceed to argue that what does remain is "moral answerability" and forward-looking claims of responsibility that focus on the moral betterment or moral enhancement of individuals who are prone to criminal behavior and on the realization of reparative measures toward victims. They go on to present a neurocriminology approach to criminal behavior and critically discuss the potential benefits and risks that may accompany such an approach. They argue that, whereas mass incarceration, severe sanctions, and stigmatization have resulted in more recidivism, adequate treatment programs that focus on increasing an individual's capacity to better control and change his future behavior have been linked to less recidivism. Such an approach can be placed within a broader public health perspective of human

behavior and addresses both environmental and neurobiological risk factors of criminal behavior. Within this framework, neurocriminology approaches to criminal behavior may provide specific guidance within a broader moral enhancement framework. Hence, rather than undermining our current criminal justice practices, the free will skeptics' approach can draw on neurocriminological findings to reduce immoral behavior.

In Chapter 14, Eddy Nahmias defends a compatibilist account of free will and attempts to understand free will in the age of neuroscience. He begins by considering various reactions one could have to *neuronaturalism*—the thesis that, in imagining options, evaluating them, and making a decision, "each of those mental processes just *is* (or is *realized in*) a complex set of neural processes which causally interact in accord with the laws of nature." He diagnoses the different reactions one could have to this thesis and argues that the "natural reaction"—one that accepts neuronaturalism in stride and without any accompanying existential angst—is both common and correct. Focusing on free will, he offers reasons to think that a neuronaturalistic understanding of human nature does not take away the ground (or grounding) that supports most of our cherished beliefs about ourselves. While dualists and reductionists tend to think neuronaturalism conflicts with people's self-conception, Nahmias argues that most people are "theory-lite" and amenable to whatever metaphysics makes sense of what matters to them. He argues that even though we do not yet have a theory of how neural activity can explain our conscious experiences, such a theory will have to make sense of how those neural processes are crucial causes of our decisions about what to do. He concludes by suggesting that interventionist theories of causation offer the best way to see this.

In Chapter 15, Thomas Nadelhoffer and Jennifer Cole Wright investigate the relationship between free will beliefs (or the lack thereof) and existential anxiety. In an attempt to shed light on this relationship, they set out to test whether trait humility can serve as a "buffer" between the two—that is, are people who are high in dispositional humility less likely to experience existential anxiety in the face of skepticism about free will? Given the perspectival and attitudinal nature of humility, Nadelhoffer and Wright predict that humble people will be less anxious in the face of stories about the purported death of free will (or the reduction of the mind to the brain). In a series of four studies, they tested their hypothesis using various scales (e.g., the Free Will Inventory, the Humility Scale, the Existential Anxiety Questionnaire, the Existential Anxiety Scale, etc.) and primes designed to manipulate belief in free will. While they found some correlational support in Study 1 for their buffering hypothesis, their efforts were less successful than they had hoped since they were unable to push people's beliefs in free will sufficiently in Studies 2–4 to test the hypothesis further. This failure itself is instructional, however, since it tells us something important about the current use of primes in studies

designed to manipulate people's belief in free will (usually to measure their pro- or antisocial effects). In this respect, they write, "our work should serve as a cautionary tale for philosophers, psychologists, and pundits who want to discuss the potential ramifications of the supposed death of free will. For while it is certainly possible for people to change their minds about free will, it is not clear that researchers have figured out effective, reliable, and stable methods for bringing these epistemic changes about (even temporarily)."

Physicist Sean M. Carroll closes out Part III with his chapter on purpose, freedom, and the laws of nature. He notes that the popular image of existentialism is associated with "philosophers sitting in cafes, smoking cigarettes and drinking apricot cocktails" and that this is at odds with the popular image of scientists decked out in lab coats. Despite these stereotypes, Carroll maintains that there is an undeniable connection between existentialism and science. This is perhaps easy to see with biology and neuroscience, but the connection goes beyond this. Carroll maintains that "An honest grappling with the questions of purpose and freedom in the universe must also involve ideas from physics and cosmology." He goes on to argue that if we want to create purpose and meaning at the scale of individual human lives, it behooves us to understand the nature of the larger universe of which we are a part. After discussing what modern physics can tell us about determinism, quantum mechanics, the arrow of time, and emergence, Carroll concludes by exploring the existential implications of these insights for freedom and meaning.

Part IV begins with Valerie Hardcastle's chapter on the neuroscience of criminality and our sense of justice. Taking the US courts as her stalking horse, Hardcastle analyzes appellate cases from the past five years in which a brain scan was cited as a consideration in the decision. After describing the methodology of her study, she presents the results of her analysis, focusing on how a defendant's race might be correlated with whether a defendant is able to get a brain scan, whether the scan is admitted into evidence, how the scan is used in the trial, and whether the scan changes the outcome of the hearing. Although she cautions against drawing any definitive conclusions until more studies are conducted, she identifies a trend indicating that brain scans of African-American defendants were less likely to be mitigating when used as evidence in court. She suggests one possible explanation for this that draws on Mark Alicke's culpable control model of blame (Alicke 2000, 2008) and recent work on implicit bias. She then provides a comparative analysis of the cases in which imaging data were successful in altering the sentence of defendants and those in which the data were unsuccessful. She concludes by pointing to larger trends in our criminal justice system indicative of more profound changes in how we as a society understand what counts as a just punishment.

The collection concludes in Chapter 18 with Stephen J. Morse arguing that neuroscience, for all its astonishing recent discoveries, raises no new challenges for the existence, source, and content of meaning, morals, and purpose

in human life, nor for the robust conceptions of agency and autonomy that underpin law and responsibility. According to Morse, proponents of using the new neuroscience to revolutionize the law and legal system, especially criminal law, make two arguments. The first appeals to determinism and the specter of the person as simply a "victim of neuronal circumstances" (VNC) or "just a pack of neurons" (PON)—included here are those who argue that determinism and/or VNC/PON are inconsistent with responsibility. The second are those who defend "hard incompatibilism" (HI) (e.g., Pereboom and Caruso, in Chapter 11). Morse begins by reviewing the law's psychology, concept of personhood, and criteria for criminal responsibility. He then argues that neither determinism nor VNC/PON are new to neuroscience and that neither, at present, justifies revolutionary abandonment of moral and legal concepts and practices that have been evolving for centuries in both common law and civil law countries. He then turns to HI and argues that, although the metaphysical premises for responsibility or jettisoning it cannot be decisively resolved, the real issue should be the type of world we want to live in. He concludes by examining Pereboom and Caruso's quarantine proposal (Chapter 11) and argues that the hard incompatibilist vision is not normatively desirable, even it if is somehow achievable.

REFERENCES

Alicke, M. D. 2000. Culpable control and the psychology of blame. *Psychological Bulletin* 126: 556–574.

Alicke, M. D. 2008. Blaming badly. *Journal of Cognition and Culture* 8: 179–186.

Bloom, P. 2004. *Descartes' baby*. New York: Basic Books.

Camus, A. 1942/1989. *The stranger.* Tr. Matthew Ward. New York: Vintage.

Camus, A. 1942/1991. *The myth of Sisyphus*. Tr. Justin O'Brien. New York: Vintage.

Chalmers, D. 1996. *The conscious mind: In search of a fundamental theory*. New York: Oxford University Press.

Chisholm, R. 2002. Human freedom and the self. In R. Kane (Ed.), *Free will*, pp. 47–57. Malden, MA: Blackwell.

Clark, T. 2013. Experience and autonomy: Why consciousness does and doesn't matter. In G. D. Caruso (Ed.), *Exploring the illusion of free will and moral responsibility*, pp. 239–254. Lanham, MD: Lexington Books.

de Beauvoir, S. 1949/1989. *The second sex*. Tr. H. M. Parshley. New York: Vintage Books.

Dennett, D. C. 1995. *Darwin's dangerous idea: Evolution and meaning in life*. New York: Simon & Schuster.

Descartes, R. 1649/1968. *Passions of the soul*. In E. Haldane and G. Ross (Eds.), *The philosophical works of Descartes*. Vol. 1. Cambridge: Cambridge University Press.

Doris, J., and S. Stich. 2006. Moral psychology: Empirical approaches. *Stanford encyclopedia of philosophy*. Accessed online: https://plato.stanford.edu/entries/moral-psych-emp/

Dostoevsky, F. 1866/2001. *Crime and punishment*. Tr. Constance Garnett. New York: Dover.

Dostoevsky, F. 1880/1976. *The brothers Karamazov: The Constance Garnett translation revised by Ralph E. Matlaw*. New York: Norton.
Flanagan, O. 1991. *Varieties of moral personality: Ethics and psychological realism*. Cambridge, MA: Harvard University Press.
Flanagan, O. 2002. *The problem of the soul: Two visions of the mind and how to reconcile them*. New York: Basic Books.
Flanagan, O. 2007. *The really hard problem: Meaning in a material world*. Cambridge, MA: MIT Press.
Flanagan, O. 2009. One enchanted being: Neuro-existentialism and meaning. *Zygon: Journal of Science and Religion* 44(1): 41–49.
Flanagan, O. 2017. *The geography of morals: Varieties of moral possibility*. New York: Oxford University Press.
Flanagan, O., and D. Barack. 2010. Neuroexistentialism. *EurAmerica* 40(3): 573–590.
Harman, G. 2009. 1st Shearman lecture: Naturalism in moral philosophy. Delivered at Princeton University on May 19, 2009. Accessed online: https://www.princeton.edu/~harman/Papers/Naturalism.pdf
Kierkegaard, S. 1843/1983. *Fear and trembling*. Tr. Howard V. Hong and Edna H. Hong. Princeton: Princeton University Press.
Kierkegaard, S. 1843/1992. *Either/or*. Tr. Alastair Hannay. New York: Liveright.
Kierkegaard, S. 1844/2014. *The concept of anxiety: A simple psychologically oriented deliberation in view of the dogmatic problem of hereditary sin*. Tr. Alastair Hannay. New York: Liveright.
Kierkegaard, S. 1846/1971. *Concluding unscientific postscript*. Tr. David F. Swenson and Walter Lowrie. Princeton: Princeton University Press.
Kierkegaard, S. 1849/1998. *The sickness unto death*. Tr. Alastair Hannay. New York: Liveright.
Morriston, W. 1977. Freedom, determinism, and chance in the early philosophy of Sartre. *The Personalist* 58: 236–248.
Nadelhoffer, T. 2014. Dualism, libertarianism, and scientific skepticism about free will. In W. Sinnott-Armstrong (Ed.), *Moral psychology: Neuroscience, free will, and responsibility*, vol. 4, pp. 209–216. Cambridge, MA: MIT Press.
Nietzsche, F. 1882/1974. *The gay science*. Tr. Walter Kaufmann. New York: Vintage Books.
Nietzsche, F. 1883/1975. *Thus spoke Zarathustra*. In *The portable Nietzsche*. Tr. Walter Kaufmann. New York: Viking Press.
Nietzsche, F. 1886/1989. *Beyond good and evil*. Tr. Walter Kaufman. New York: Vintage Books.
Nietzsche, F. 1887/1969. *On the genealogy of morals*. Tr. Walter Kaufmann. New York: Vintage Books.
Ryle, G. 1949/2001. *The concept of mind (with introduction by Daniel C. Dennett)*. Chicago: University of Chicago Press.
Sartre, J.-P. 1943/1992. *Being and nothingness*. Tr. Hazel Barnes. New York: Washington Square Press.
Sartre, J.-P. 1946/2007. *Existentialism is a humanism*. Tr. Carol Macomber. New Haven: Yale University Press.
Sellars, W. 1963. *Science, perception, and reality*. London: Humanities Press.
Taylor, C. 1989. *Source of the self: The making of the modern identity*. Cambridge, MA: Harvard University Press.