

Objections and Responses to the Existence of Free Choice

EZRA SULLIVAN, O.P.

*Pontifical University of St. Thomas Aquinas
Rome, Italy*

SAMUEL JOHNSON ONCE OBSERVED: “All theory is against the freedom of the will; all experience for it.”¹ He was only half right. As we will see, St. Thomas Aquinas offers a strong theory in favor of the freedom of choice. In this essay, I will weigh three objections to fully voluntary acts: those derived from neuroscience, physicalist determinism, and the problem of habituation. Although many other objections to free choice exist, these represent some of the most serious assaults on the idea of human freedom, and therefore human responsibility. In a final section, I will address Aquinas’s claim that freedom is rooted in reason. With these considerations in place, we will be well on our way to establishing a solid theory of morality in all its subtlety and richness.

First Objection: The Experiments of Benjamin Libet

Scientists and thinkers who argue against the existence of free choice very frequently cite the work of neurobiologist Benjamin Libet.² For many, Libet’s experiments demonstrate that human action is not caused by an individual’s will or intention to act, and therefore that voluntary action is an illusion. Let us see why they think so.

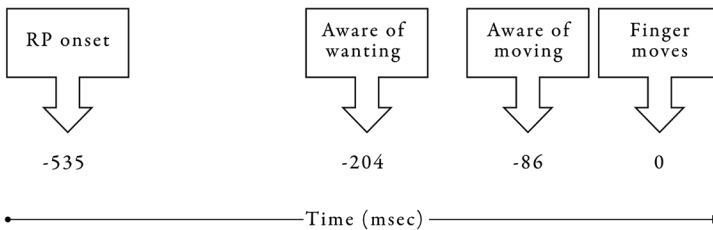
Libet’s goal in his experiments was to determine how or whether a

¹ James Boswell, *The Life of Samuel Johnson*, vol. 3 (Boston: W. Andrews and L. Blake, 1807), 13.

² Alfred R. Mele, *Why Science Hasn’t Disproved Free Will* (Oxford: Oxford University Press, 2014), 8.

voluntary act arises in relation to brain functioning.³ In order to do this, he and his colleagues devised a way to ask test subjects about what he defined as a “voluntary action.” For Libet, a voluntary action has three aspects: (1) it arises from within a person and is not determined by an external stimulus; (2) it is free from “externally imposed restrictions or compulsions that directly or immediately control subjects’ initiation and performance of the act”; and (3) “most important, subjects *feel* introspectively that they are performing the act on their own initiative and that they *are free* to start or not to start the act as they wish.”⁴ Accordingly, Libet asked the subjects “to perform a simple quick flexion of the wrist or fingers at any time they felt the ‘urge’ or desire to do so,” ensuring that the movement was spontaneous and wholly unforced.⁵ They were then to look at a spot of light that revolved around a clock face in a little over two and a half seconds. They were to report for each wrist or finger movement precisely where the spot was on the clock when they were first aware of wanting to flex.

The results of the experiment were striking. Measuring brain electrical activity, Libet found that a “readiness potential” (RP) to act arose almost 300 milliseconds *before* the subject was aware of wanting to act. That is, the brain was already active *before* the individual became conscious of a movement in his desire to flex. This is represented in the figure below.⁶



It should be emphasized that, although the brain was active prior to their conscious awareness of a desire to act, the subjects all reported that their movements were self-initiated, that they believed they were in control of whether or not to act, and that they were aware of no external or psycho-

³ Benjamin W. Libet, “Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action,” *Behavioral and Brain Sciences* 8, no. 04 (December 1985): 529–39, at 529.

⁴ Libet, “Unconscious Cerebral Initiative,” 529 (emphasis original).

⁵ Libet, “Unconscious Cerebral Initiative,” 530.

⁶ From Daniel M. Wegner, *The Illusion of Conscious Will* (Cambridge, MA: MIT Press, 2002), 53.

logical pressures that affected the time when they decided to act.⁷ The importance of these results is indicated by the fact that they have generated a cottage industry of responses and analyses.

Many interpreters were astonished by Libet's findings.⁸ Supposing that the subject's will is the cause of his movement, it seems to follow that the will would be the cause of the brain's activity that initiates the movement. Thus, one's brain activity should come *after* or at least be *simultaneous* with one's decision to move, but certainly not before it. Because the brain activity preceded the subject's desire to act, there seems to be no reason to hold that the subject's will initiated the series of movements that led to his flexion. Instead, as Harvard psychologist Daniel Wegner put it, Libet's experiments suggest that, "voluntary action is a mental event caused by prior events."⁹ Therefore, in his estimation, voluntary action and "conscious will" is an illusion.¹⁰

Some interpretations have attempted to show that Libet's experiments are wrongly interpreted by free-will deniers and even by Libet himself.¹¹ According to Libet, one's bodily inclination, initiated prior to conscious intention, does not fully exclude the possibility of freedom, and in fact argues against physical determinism, for the subject can veto his inclinations: "The role of conscious free will would be then, not to initiate a voluntary act, but rather to control whether the act takes place."¹² He argues that "unconscious initiatives for voluntary actions" bubble up in the brain, and the "conscious-will" selects which to enact and which to veto.¹³ For some, Libet's concession is a meager consolation prize. With about a tenth of a second in which to avoid a movement initiated outside of one's will, one's veto-power has rather limited capabilities. In V. S. Ramachan-

⁷ Libet, "Unconscious Cerebral Initiative," 530.

⁸ For a balanced presentation of different positions, see *Conscious Will and Responsibility: A Tribute to Benjamin Libet*, ed. Walter Sinnott-Armstrong and Lynn Nadel (Oxford: Oxford University Press, 2010).

⁹ Wegner, *Illusion of Conscious Will*, 55.

¹⁰ See also Patrick Haggard, Christ Newman, and Elena Magno, "On the Perceived Time of Voluntary Actions," *British Journal of Psychology* 90 (1999): 291–303.

¹¹ See Josef Siefert, "In Defense of Free Will: A Critique of Benjamin Libet," *The Review of Metaphysics* 65, no. 2 (2011): 377–407. Siefert proceeds along Augustinian and phenomenological lines, adopting certain Cartesian presuppositions to refute Libet's interpretation of his own data, and to demonstrate that acts of the will are unforced and are wholly spiritual.

¹² Benjamin W. Libet, "Do We Have Free Will?" *Journal of Consciousness Studies* 6, no. 8–9 (1999): 47–57, at 54.

¹³ Libet, "Do We Have Free Will?" 54.

dran's words, Libet argues that we have a "free won't," but not a free will.¹⁴ Libet, however, provides a more optimistic reading. He points out that ethics often focuses on self-control, and most of the Ten Commandments are couched in "do not" language.¹⁵ Furthermore, the universal presence of disordered physiological inclinations may be indirect evidence for "original sin."¹⁶

Many responses can be made from a Thomistic perspective. To begin with, Libet is correct that in some occasions, if not in most, unconscious initiatives incline a person toward choosing to perform one action and not another. Sometimes one's instinct for self-preservation inclines a person to hoard food at an all-you-can eat restaurant. Sometimes a person's deep-rooted childhood trauma inclines her to lash out in anger toward authority figures. Inclinations can arise outside of the will from involuntary, non-voluntary, or partly voluntary habits that are present from one's nature as a human being, from one's individual genetic and epigenetic makeup, from one's experiences, and so on. Libet is also correct in arguing that these inclinations do not *determine* human action. But these positions are philosophic. Libet's experiments on their own do not conclusively demonstrate them. Furthermore, the experiments are far less than demonstrative, as he seems to recognize, and the issue of voluntariness is more nuanced than he allows, as the following observations make clear.

First, Libet seems to misunderstand the kind of action that his experiments detected. His aim was to find a physical sign of a voluntary act. But his premises and experimental design mitigate against such a finding. Libet's experiment tested actions in which people were instructed *not* to think about what to do. He asked subjects to "report when they first felt a desire, urge" to move a finger, in a discreet, highly formalized setting. Libet supposed that an action is free because it arises from a "spontaneous" urge. Such an act is free only insofar as it is unforced. But such an unpremeditated act, which concurs only with one's interior, physiological inclination, is merely a following of one's non-deliberative urges and unconscious desires.¹⁷ This is quite different from an unforced act that proceeds from a process of choosing, planning, and executing—one that Albert Bandura characterizes as "proactive cognitive regulation,"¹⁸ and

¹⁴ Quoted in Daniel Dennett, "The Self as a, Responding—and Responsible—Artifact," *Annals of the New York Academy of Sciences* 1001 (2003): 39–50 at 41.

¹⁵ Libet, "Do We Have Free Will?" 54.

¹⁶ Libet, "Do We Have Free Will?" 55.

¹⁷ See Mele, *Why Science Hasn't Disproved Free Will*, 15–16.

¹⁸ Albert Bandura, "Reconstruction of 'Free Will' from the Agentic Perspective of Social

that Alfred Mele describes as “conscious decision making.”¹⁹ In a similar vein, Aquinas includes “deliberation” and “decision” in what he would call the “rational” process of human action.²⁰ Libet thus correctly holds that a free decision must be tied to knowledge, but he does not adequately differentiate among kinds of knowledge or information as they relate to various actions: sensory information can be related to the sort of “freedom” that animals exercise when moving themselves from place to place, while they nevertheless act ultimately according to instinct; whereas deliberate knowledge, with insights derived from the act of abstraction, leads to moral freedom, as we will see below. Libet supposes that a voluntary act is always accompanied by a *feeling* of freedom—which appears to be for him a sort sensation that the agent recognizes—and he makes this feeling the cornerstone of voluntariness. However, the *feeling* of an urge to act is neither necessary nor sufficient for full voluntariness: although one may reflect upon his freedom when acting, it may be that while freely acting, an agent’s attention is fixed on the object of his choice rather than the freedom with which he chooses.²¹ The electronic monitor registered a physical preparation for an action. But the action that followed was one without deliberation or planning. However, the absence of reason denotes, for Aquinas, the presence of a non-voluntary act. Such a non-deliberate act, springing from a non-rational whim, would clearly not be rooted in one’s immediate *rational desire*. When a person acts without deliberately choosing to do so, his acts would be, in Thomas’s language, “acts of a human” and not “fully human acts.”

Second, Libet does not account for volitional acts that occur prior to other acts. The design of the experiment entails that the subject *freely chose* to cooperate with the experiment and *freely planned* to flex his finger or wrist at some point in the experiment (even if he did not choose specifically when). Thus, the subject freely decided to flex *before the physical*

Cognitive Theory,” in *Are We Free? Psychology and Free Will*, ed. John Baer, James C. Kaufman, and Roy F. Baumeister (Oxford: Oxford University Press, 2008), 86–127, at 115. See also Bandura’s magnum opus, *Self-Efficacy: The Exercise of Control* (New York: W. H. Freeman, 1997).

¹⁹ Mele, *Why Science Hasn’t Disproved Free Will*, 24.

²⁰ This will be discussed more below. See Daniel Westberg, *Right Practical Reason: Aristotle, Action, and Prudence in Aquinas* (Oxford: Clarendon, 1994), 131. See also Lambert Hendriks, *Choosing from Love: The Concept of “Electio” in the Structure of the Human Act According to Thomas Aquinas* (Siena: Edizioni Cantagalli, 2010), 282–84.

²¹ See M. R. Bennett and P. M. S. Hacker, *Philosophical Foundations of Neuroscience* (Malden, MA: Wiley-Blackwell, 2003), 229–30.

act itself. Bandura argues that the decision to flex is a “second-order” act that affects a “first-order” event. “In acting as agents,” he says, “individuals obviously are neither aware of nor directly control their neuronal mechanisms.”²² However, they do intentionally engage in activities “at the macrobehavioral level” and thus “shape their neural circuitry and enlist subpersonal neurophysiological events” for their chosen purposes.²³ It may be that the brain firing was the result of an earlier act of volition, and even that it was a sign that the imagination was presenting the possibility of action to the will for acceptance or rejection. In this light, one could argue that the knowledge necessary for a free choice does not have to be concurrent with the chosen physical act in order for that physical act to be free.²⁴

The first point above is clearly in tension with the second point just made. The first argues that the act was not voluntary, while the second argues that it could have been fully-voluntary. Either position is reasonable, and both demonstrate that Libet’s experiment provides *underdetermined data*. Alone, such data prove neither the existence nor the non-existence of human freedom. Hence, further philosophic analysis from a Thomistic perspective can help illuminate some of the challenges that arise from the data. Seen from outside of the experimental context, the flexion of the subject seems to be imperfectly voluntary. But seen from the perspective the acting person, embedded in the context of previous choices that led up to the point where he was spontaneously to flex his finger, one could reasonably hold that the flexion movement arose from preceding free choices.²⁵ A settled judgment about the voluntariness of the flexion would have to take into account the classic way of differentiating between actual, virtual, and habitual intention.

A third point may underline how difficult it is to discover empirically a movement of the will. Aquinas argues that a man can demonstrate that he wills something through external signs “by not impeding an operation.”²⁶ This sort of volition may be called a “permission,” for by it one wills to allow a movement to continue.²⁷ This matches up with Libet’s argument that the will of a person can be detected when he freely moves his finger, even though the inclination to move started in the brain. For this to be fully-voluntary, one must know that he is giving permission; otherwise,

²² Bandura, “Reconstruction of ‘Free Will,’” 108.

²³ Bandura, “Reconstruction of ‘Free Will,’” 108.

²⁴ See Mele, *Why Science Hasn’t Disproved Free Will*, 24.

²⁵ See Bandura, “Reconstruction of ‘Free Will,’” 114.

²⁶ Aquinas, *Summa theologiae* [ST] I, q. 19, a. 12.

²⁷ ST I, q. 19, a. 12.

the action would be only partly voluntary, or non-voluntary. But it is often difficult for an individual to know when he has given permission, that is, when his will has concurred with a movement that has already begun within himself. This is because one's awareness of the precise timing of one's own volitional acts is largely shaped by the context in which they are made. Granted that some knowledge or intellectual awareness (more than a mere *feeling*) of one's willing is concomitant with the very act of willing, Bandura points out that, nevertheless, awareness of a conscious event is rather difficult to pin down, especially in an experimental context such as the one devised by Libet: "The ambiguity of the conscious events being monitored and their timing, multiple conflicting attentional demands, and fuzziness of the precise onset of awareness detract from the interpretability of the temporal ordering of events."²⁸ It is not easy for a person to say with scientific precision when an urge arises while he is connected to two different electrograph machines, looking straight ahead at a quickly revolving dot of light without distraction, and is performing a purposeless, isolated movement over and over again in multiple sessions—all while he knows he is being carefully watched.²⁹ Furthermore, a number of studies indicate that a person's perception of time adapts to various conditions in which he is operating: when we are bored, events may seem very distant even though they are separated by a short span of time; but when we are anticipating immediate results, separate events might seem to be simultaneous.³⁰ Therefore, the self-reporting of Libet's test subjects rests on shaky grounds, which calls into serious question the experiment design and its proposed data.

A careful consideration of Libet's experiments on free will shows that they do not successfully prove the existence of free will as he supposes; nor do they demonstrate that free will does not exist, as many others believe. Nevertheless, they raise worthwhile questions about the nature of volition, self-knowledge, and experimental design, and therefore are a valuable contribution to the discussion about the existence and nature of that mysterious part of humans.

²⁸ Bandura, "Reconstruction of 'Free Will,'" 115.

²⁹ Bandura, "Reconstruction of 'Free Will,'" 115.

³⁰ See Filippo Tempia, "Free Will, Perceived Time, and Neural Correlates of Conscious Human Decisions," in *Moral Behavior and Free Will: A Neurobiological and Philosophical Approach*, ed. Juan José Sanguinetti, Ariberto Acerbi, and José Angel Lombo (Rome: IF Press, 2011), 168–81.

Second Objection: Determinism

More powerfully than any scientific experiments, philosophical arguments are able to cast doubt on the existence of fully voluntary human acts. Among the many philosophical contestants vying against free choice, determinism ranks among the strongest, particularly forms of determinism adopted by empirical scientists. Fully aware that here I cannot explore all the passages and sub-passages within the “labyrinth of free will,” in this section, I respond to determinism’s claim that free choice does not exist.³¹

To begin with, one can distinguish between two types of determinism that many thinkers often conflated with one another: *causal* determinism and *predictive* determinism. This distinction leads to correspondingly different kinds of indeterminism, as will be seen.

Causal determinism claims that a particular cause will always have a determinate effect, given the same conditions in both instances.³² This is determinism contingent on the thing itself. It is a claim about what happens when a thing acts or when an event takes place: when *x* happens, *y* is always a result. The relationship between cause and effect occurs on its own; it happens whether or not an observer is aware of the event, its causes, or its effects.

In contrast, *predictive determinism* claims that, if all relevant factors were known, an ideal human knower could always predict that a given effect will arise from a given cause: “when *x* happens, *y* will result.” The ideal knower in this case is an observer with a sufficient knowledge of the material and efficient causes that pertain to the particular event about which a prediction is made. Predictive determinism is primarily a claim that human predictions can be so accurate that effectively they can be the same as determining what the future will be. Insofar as this sort of determinism concerns the accuracy of knowledge that leads to predictions, it should more properly be called a *determinate knowledge of effects*.

This distinction between different kinds of determinism lead to two key questions: (1) Do any causes have invariable effects (i.e., is causal determinism real)? (2) Could humans in principle know the relevant factors

³¹ Robert Kane, *The Significance of Free Will* (Oxford: Oxford University Press, 1998), 5.

³² See, for instance, this definition: “Determinism is a theory or belief that events, including acts of the will . . . are causally determined by preceding events and natural laws. Determinism assumes that all events in the universe, including all the things that happen in human minds, follow laws of causality” (John Baer, “Free Will Requires Determinism,” in Baer, Kaufman, and Baumeister, *Are We Free?* 305).

to enable them accurately to predict all future events (i.e., is predictive determinism possible)?

Although philosophers and scientists provide many answers to these questions, here I will discuss the most robust version, namely, a causal and predictive determinism based on a thesis that can be called the “causal closure of physicalism” or the “causal completeness of physicalism.”³³ It asserts that all causes are physical causes, and all physical causes have intelligible, determinate, physical effects. In other words, “all physical effects are fully determined by fundamental physical laws.”³⁴ Hence, causal determinism is real. Furthermore, it argues that because physical causes and effects are intelligible, they are in principle and discoverable to us. Therefore, predictive determinism is possible. When combined, these claims form physical determinism. It is *physical*, because it proposes that the physical conditions and circumstances that surround a human act are in principle sufficient to explain its execution. Childhood experiences, parentage, and even personal choices are ultimately reducible to physical explanations (whether explained by sociology, genetics, epigenetics, physics, etc.). Hence, according to physical determinism, the real cause of an individual’s act is not the individual’s free choice (which is an illusion), but the physical circumstances that surround the act.

Below I offer three Thomistic responses to physical determinism. First, to the extent that “physical” and “material” mean the same thing, physical determinism is essentially eliminative materialism applied to future events. This being the case, arguments against eliminative materialism apply equally to physical determinism. Although I cannot detail the argument here, it must be said that eliminative materialism cannot explain adequately the nature of certain kinds of human phenomena, such as complex memories and emotions, because it considers only material and efficient causes while ignoring final and formal causes. For example, eliminative materialism and a purely empirical account of “fear” might demonstrate that it resides primarily in the amygdala, and that it is caused by various circumstances and objects, whether real or merely supposed, that affect one’s cognitive and emotive powers. However, such an account does

³³ See Robert C. Bishop and Harald Atmanspacher, “The Causal Closure of Physics and Free Will,” in *The Oxford Handbook of Free Will*, ed. Robert Kane, 2nd ed. (New York: Oxford University Press, 2011), 101–13.

³⁴ David Papineau points out that physicalism in its contemporary form is more ontological than methodological: “It claims that everything is physically constituted, not that everything should be studied by methods used in physical science” (“The Rise of Physicalism,” in *Physicalism and Its Discontents*, ed. Carl Gillett and Barry Loewer [Cambridge: Cambridge University Press, 2001], 3).

not provide a definition of “fear” whereby one can distinguish it from other similar emotions, such as anxiety and dread; nor does eliminative materialism explain what purpose fear fulfills in human life. We can take a step further. Because eliminative materialism cannot adequately explain the nature and causes of psychological phenomena, neither can it adequately explain how those phenomena are themselves causes of other phenomena. If we do not understand the nature of fear, we cannot explain how it can cause such disparate behaviors such as self-isolation, obsessive-compulsive rituals, and interpersonal aggression and even violence. There is nothing inaccurate per se in an empirical account of human phenomena; certainly all human acts on earth require the body to some degree, and some interaction with the physical world. But it is entirely erroneous to confuse a part with a whole, to suppose that the physical aspects of human action constitute the entire human act, and that there is nothing else present. Without undermining their importance, a deeper understanding of the meaning and purpose of human acts helps us to see that physical laws, descriptions, and explanations isolated from other descriptions and explanations are inadequate to account for things such as free will, its causes, and its effects.

Second, modern science did not invent or necessitate the philosophy of physical determinism and its exclusion of free choice. It is present in the first documented philosophers, including Democritus (~460 BC).³⁵ Significantly, Aquinas is willing to recognize that there are *some* determinate or necessary causes in nature. But not all causes are necessary; neither are their effects. Rather, for the good order of the universe, “God wills some things to be done necessarily and some contingently.”³⁶ Thus, “to some effects He has attached necessary causes, that cannot fail, from which necessary effects arise; but to other [effects He has attached] defectible, contingent causes, from which contingent effects occur.”³⁷ For example, like other non-rational things, heat is properly directed toward

³⁵ Democritus argued that “the mind, like the soul as a whole, operates through mechanical motions and collisions of atoms, and its impressions must be subject to the same sort of distortions as those of sensation” (quoted in G. S. Kirk and J. E. Raven, *The Presocratic Philosophers: A Critical History with a Selection of Texts* [Cambridge: Cambridge University Press, 1957], 424). See also the thorough and penetrating work of Mortimer Adler, *The Idea of Freedom*, vol. 1, *A Dialectical Examination of the Conceptions of Freedom*, and vol. 2, *A Dialectical Examination of the Controversies about Freedom* (Garden City, NY: Doubleday, 1958 and 1961); and Jonathan Barnes, *The Presocratic Philosophers* (New York: Routledge, 1982), 417–20.

³⁶ *ST I*, q. 19, a. 8.

³⁷ *ST I*, q. 19, a. 8.

one effect: something that is hot necessarily heats things colder than itself: the sun cools the earth.³⁸ All things being equal, the effect of a hot thing is that it will heat something else; it will not cool something else or have any other effect except insofar as that effect comes from heating.³⁹ Hence, Aquinas speaks of “natural necessity,” for by their natures hot things are determined to the effect of heat. “It is necessary for fire to heat,” he says.⁴⁰ Jan Aertsen points out that, in this perspective, “‘necessary,’ ‘intrinsic cause,’ and ‘nature’ go together.”⁴¹ Thus, it seems that Aquinas would admit a weak form of causal determinism.

At the same time, Aquinas would reject an all-encompassing version of predictive determinism. This is for two reasons.

(1) One cannot have certitude that the effect of heating will always come about. This is because the future *as future* does not exist. If it existed right now, it would no longer be the future; it would be the present. What is actual is determinate: its current state of being is knowable and fixed, at least in the moment. Insofar as a thing is potential, it is indeterminate, for it has not yet become what it may be.⁴² Thus, from a temporal perspective, the future exists only as a potentiality, not as a necessity.⁴³ Therefore, as a potentiality, the future cannot be *known* as an actuality by those whose existence is constrained by time. In that sense, absolute effective determinism is not possible. Instead, one can predict the future more or less accurately.⁴⁴ To many thinkers, the future seems determined, especially because modern science is continually increasing the accuracy of certain kinds of predictions. But the accuracy of prediction depends directly on one’s knowledge of the proper causes of things. The less one knows of proper causes, or eliminates causes from one’s explanation (e.g., formal and final), the less predictive power one will have regarding complex phenomena.

(2) The deeper reason why an all-encompassing predictive determinism is impossible is that natural causes, even though they may have necessity within the created realm, are not absolutely necessary. They are, as it were,

³⁸ See *In IX metaph.* lec. 2, no. 4.

³⁹ Aquinas, *In IX metaph.* lec. 2, no. 4.

⁴⁰ *ST* III, q. 14, a. 2.

⁴¹ Jan Aertsen, *Nature and Creature: Thomas Aquinas’s Way of Thought* (Leiden and New York: Brill, 1988), 239.

⁴² *ST* I, q. 14, a. 3.

⁴³ See *ST* I-II, q. 13, a. 6.

⁴⁴ *ST* I, q. 14, a. 3. God, however, knows all contingent things, not only in their causes, but as they actually are, for he exists outside of time. Hence, he knows the future with complete certitude, but not as future, for all is present to him in his eternal knowledge that simultaneously embraces all times.

only conditionally (or suppositionally) necessary.⁴⁵ God alone is absolutely necessary, for only he is subsistent Being itself.⁴⁶ He is the cause of all things; all things exist only under the condition of participating in his being.⁴⁷ Because God need not have created anything, all creatures are fundamentally non-necessary: they need not have existed, and they need God to remain in existence.⁴⁸ However, granting certain conditions, creatures can have a relative necessity.⁴⁹ For example, the structure of the universe necessitates the existence of the planets and other astrophysical bodies, along with the forces that move them.⁵⁰ For creatures that are composed, “contingency is from matter, for the contingent is what can be and not be, and potency pertains to matter. But necessity results from form.”⁵¹ This applies also to action, for “natural things operate through forms inherent to them.”⁵²

According to Aquinas, all things move according to their natural forms. Purely material things, such as water, move and are moved according to the form their molecules take, whereas plants have a principle of self-movement that can be called their “vegetative soul”. Non-human animals have a “sensory soul” that helps them navigate complex situations. Aquinas posits that, insofar as animals *choose* among alternatives in behavior, they have an imperfect sort of voluntariness, for they act upon sensory knowledge alone. However, animal choice is limited to the good that is present to their senses, imagination, or memory, for their sensory knowledge enables them to consider only a particular good.⁵³ Thus, animals act according to their natural instincts and acquired habits, and in this way they are not free, for they have been determined by their nature or by exterior forces.⁵⁴ In contrast, the human intellect is able to achieve “science,” a higher and more comprehensive form of knowledge. Following Aristotle, Aquinas points out that science enables a person to know “contraries” about what he considers.⁵⁵ For example, the science of medicine encompasses both

⁴⁵ See *ST I*, q. 19, a. 3. See also, Aertsen, *Nature and Creature*, 231–47.

⁴⁶ *ST I*, q. 4, a. 2.

⁴⁷ See *ST I*, q. 44, a. 1.

⁴⁸ *ST I*, q. 19, a. 3.

⁴⁹ *ST I*, q. 19, a. 3.

⁵⁰ Aquinas, *Summa contra gentiles* [*SCG*] III, ch. 94, no. 10.

⁵¹ *ST I*, q. 86, a. 3.

⁵² *In IX metaph.*, lec. 2, no. 7.

⁵³ *ST I*, q. 85, a. 1.

⁵⁴ *ST I*, q. 83, a. 1.

⁵⁵ *In IX metaph.*, lec. 2, no. 5.

what conduces to health and, in a secondary way, what leads to sickness.⁵⁶ Similarly, when a human is confronted with an option, he can consider contraries with respect to the thing itself, or at the very least with respect to his own choice. When confronted with a wolf, a sheep necessarily flees, but a man can consider whether to run or not. Even if the man is bodily incapacitated, he endures being eaten willingly or unwillingly.⁵⁷ Thus, because reason can consider particular goods under various aspects, a human has the freedom to act contrary to his instincts for self-preservation, contrary to the preservation of the species, and even contrary to his natural inclination toward God.⁵⁸ In sum, even if one grants that some *physical causes* are necessary and determinate, this does not entail that all *human actions* are necessary and determinate. Rather, human action possesses a certain amount of unpredictability and non-necessity. A person's body may ordinarily follow the laws of nature, but humans can choose to violate natural law in various ways, at least for a time. More positively, human creativity can reveal rich aspects of nature that are not discoverable through the observation of non-human animals and lower life forms. For both reasons, Thomas would deny complete causal determinism and an all-encompassing predictive determinism.

A third response, focusing on the soul as a self-moving mover, can help show why absolute causal determinism, one that excludes free choice, is unconvincing.

It might seem as if Thomistic Aristotelianism would argue against the soul being a self-mover, and instead would be in favor of a causal determinism (perhaps even of the physical sort). One of the fundamental principles of Aristotelian causality states, "it is necessary that everything that is moved, is moved by another."⁵⁹ This applies not only to things that are wholly moved extrinsically, by compulsion, whose principle of motion is outside of themselves, such as water and stones. It also applies to anything that "has in itself the principle of self-motion," that is, in every living thing.⁶⁰ A philosopher of science takes this to mean: "Nothing can move by itself, nothing can change on its own account, but every change evidences the presence of an efficient cause, of an agent acting extrinsically upon the patient."⁶¹ Such an interpretation seems to be supported by a

⁵⁶ *In IX metaph.*, lec. 2, no. 5.

⁵⁷ See *ST I*, q. 83, a. 1:

⁵⁸ *In IX metaph.*, lec. 2, no. 8.

⁵⁹ Aquinas, *In VII phys.*, lec. 1, no. 2. See Aristotle, *Physics* 7.1. 241b34.

⁶⁰ *In VII phys.*, lec. 1, no. 2.

⁶¹ Mario Bunge, *Causality and Modern Science*, 3rd ed. (New York: Dover, 2011), 175.

further scholastic adage: "Nothing is its own cause, because it would be prior to itself, which is impossible."⁶² A Thomist explains: "The subject of change is never *changing*, it is *being* changed. The thing which is undergoing change is a *patient*, a 'possible,' and it needs an agent distinct from itself to effect the change."⁶³ It seems to follow, therefore, that there is a closed causal loop such that what seems to be free choice is in fact an effect whose cause can be traced to something other than the person who chose.

A response to this could begin by acknowledging that there indeed is a First Mover of all things; this is God, the unmoved mover, the first cause of all that exists, the unchanging source of all changes.⁶⁴ We have already seen that humans have a natural *inclination* to pay reverence to God by religion.⁶⁵ They also have a natural *motion* toward God, understood in a general and indistinct way as the supreme good. This motion comes from God himself. As Creator and "Universal Mover," God moves the human will "to the universal object of the will, which is the good."⁶⁶ This motion is not contrary to human nature, however. Instead, it is consonant with the deepest resonances of humans, who, through their will, are naturally open to the greatest good, "for just as something is called natural because it is in accordance with the inclination of nature, so something is called voluntary because it is in accordance with the inclination of the will."⁶⁷ In fact, this natural motion is so necessary for human choice that without it "a human cannot will anything."⁶⁸

To explain the somewhat astounding claim that humans are unable to will anything without a motion given to them by God, Aquinas distinguishes among three kinds of necessity. (1) "Natural and absolute" necessity: whatever must exist on account of the nature of a thing. For example, it is necessary that the interior angles of a right triangle equal 180 degrees.⁶⁹ (2) "Necessity of the end": something without which an end cannot be attained, or not very well attained. For example, food is neces-

⁶² SCG I, ch. 18, no. 4.

⁶³ James A. McWilliams, *Physics and Philosophy: A Study of Saint Thomas' Commentary on the Eight Books of Aristotle's Physics*, quoted in Bunge, *Causality and Modern Science*, 175.

⁶⁴ See ST I, q. 2, a. 3. See also *In XII metaphys.*, lec. 12, no. 37. See also ST I, q. 9, aa. 1 and 2.

⁶⁵ See SCG III, ch. 119, no. 7.

⁶⁶ ST I-II, q. 9, a. 6, ad 3.

⁶⁷ ST I, q. 82, a. 1.

⁶⁸ ST I-II, q. 9, a. 6, ad 3.

⁶⁹ ST I, q. 82, a. 1.

sary for life, and a vehicle is necessary for a long journey.⁷⁰ (3) “Necessity of coercion”: whatever happens on account of some agent, such that a person cannot do the contrary. For example, when a mugger forces a person to give up his money.⁷¹ In analyzing each kind of necessity with respect to voluntariness, Aquinas considers its relation to nature. For him, whatever is fundamentally natural is also voluntary. What is absolutely violent to the will is contrary to its nature and therefore, by definition, involuntary; thus, “simple necessity of coercion” is involuntary as such. But this is not the case for “natural” necessity and the “necessity of the end,” for these can be both necessary and voluntary for a person. He reasons in the following way.

Some things are secondarily and changeably good for a thing, but other things are primarily and unchangeably good for it. In the first case, it is good for a patient in a hospital to be cared for by the best physician; but this situation ought to be temporary, and its goodness is contingent on many different conditions. Similarly, food is generally good for a person, and has the “necessity of the end,” but food in a particular place and time may damage health (as when a person has recently eaten, or when a person is dying and food would only cause pain and discomfort); in this sense, it is changeably good for this person. It has a qualified necessity, but granted those qualifications are in place, the necessary thing is in accordance with one’s will: a hungry person who can assimilate nourishment voluntarily (and even happily) wills to eat food. Other things are always and unchangeably good and “befitting” for a person. Such goods are abstract rather than concrete: health is always good for a creature, even though what conduces to health may differ among individuals. Thus, health is a “natural and absolute” necessity. Above all, the universal good is clearly always and unchangeably good for a person. This is because the will is the faculty that is open to the universal good: the will is not restricted to particular sensible goods, but stretches out to non-sensory goods that are presented to it by the reason: “the intellectual appetite,” which is the will,⁷² “though it is drawn to individual things outside of the soul, nevertheless it is drawn to them according to some universal *ratio*.”⁷³ Likewise, “through the intellectual appetite, we are able to desire immaterial goods that the senses cannot apprehend, such as science, virtue, and other similar things.”⁷⁴ Furthermore, the will only desires something insofar as it is

⁷⁰ See *ST I*, q. 82, a. 1.

⁷¹ See *ST I*, q. 82, a. 1.

⁷² *ST I-II*, q. 8, a. 1.

⁷³ *ST I*, q. 80, a. 2, ad 2.

⁷⁴ *ST I*, q. 80, a. 2, ad 2.

apprehended as good.⁷⁵ Therefore, it is not contrary to the will to be moved toward the universal good—its very nature is to be moved by goodness, while it remains free with respect to particulars that lead to that universal, ultimate good.⁷⁶

But is the will's movement toward the universal good a *necessary* prerequisite for its other choices? In response, it should be noticed that the will's natural motion toward the universal good is only somewhat like an exterior "push" that the will voluntarily never rejects (otherwise it would no longer be directed toward that which is always good and desirable for it). The will is also moved toward the universal end as a *final cause*, for the universal good draws the will by attraction.⁷⁷ As Thomas beautifully explains, "the act of loving takes place through a sort of impulse engendered in the lover by the beloved: the beloved thing draws the lover to itself."⁷⁸ Being naturally open to the highest and greatest good in a general, the will is naturally moved toward it whenever it is in act. Hence, the kind of motion that the will naturally receives is inseparable from its natural openness to the good, and the will cannot will the opposite of what is good as such.⁷⁹ It follows that: "The last end moves the will by necessity, because it is the perfect good. Likewise, [the will is moved] to whatever is ordered to that [final] end, and without which that end cannot be attained, such as being and living and similar things."⁸⁰ For this reason, Aquinas argues that everyone naturally desires happiness in a general way, for desiring happiness is "nothing else than to desire that one's will be satisfied."⁸¹ He provides the following analogy. God creates a plant and moves it naturally precisely by giving a plant a nature that moves itself according to certain principles. By the principles of its nature, that is, by its natural tendency to seek light and nourishment and its inherent power to reproduce itself, the plant grows, bears fruit, and so on. Similarly, by giving humans the appetite of the will, God moves them by "voluntary causes" that do not take away voluntariness but rather makes them to be voluntary.⁸² Thus, Thomas

⁷⁵ *ST* I-II, q. 8, a. 1.

⁷⁶ See *De malo*, q. 6.

⁷⁷ See, for example, *SCG* III chs. 67 and 88, where Thomas explicitly unites God's action as first mover (efficient cause) with his action as the ultimate end of all things (final cause).

⁷⁸ Aquinas, *Compendium theologiae* I, ch. 46.

⁷⁹ *ST* I-II, q. 10, a. 2.

⁸⁰ *ST* I-II, q. 10, a. 2, ad 3. See also *De veritate*, q. 22, a. 5, ad 12. All translations from Aquinas's texts are my own.

⁸¹ *ST* I-II, q. 5, a. 8.

⁸² *ST* I, q. 83, a. 1, ad 3. See also *SCG* III, ch. 73.

holds that the movement of the human will is caused by something other than the individual, and yet the person retains the freedom of voluntary causality. Aquinas explains that God causes the will to exist; the will is an appetite for the universal good; as such, the universal good draws the will; God moves the will into existence and he moves it as a final cause. However, because the good in general only draws the will in general, the will is free in the exercise of its act of willing or not willing, and free to will or not to will something in particular.⁸³ Therefore, both God and the individual are movers of the will, but in different respects: the will moves itself as proximate agent, but God moves it as first cause and ultimate final cause.⁸⁴

Some thinkers propose that free choice only consists in one or both of the following elements: (A) having alternatives to a particular choice, (2) causing an action to happen.⁸⁵ Such a conception is only partly accurate. Insofar as one can have a reason that leads to willing or actively not willing something, one has an alternative: a person can always assent to or dissent from what takes place, even if he cannot change any outcome other than his own volition. For similar reasons, insofar as assenting or dissenting for a reason is an interior action, one could say that volition involves some kind of action, although the action might not manifest itself in any exterior effects.⁸⁶ The essence of free choice is more properly the ability to will or not will an apparent good for a reason.⁸⁷ Therefore, alongside the principle that “nothing is a cause of itself,” Aquinas also affirms that “free will is the cause of its own movement.”⁸⁸ With his understanding of final causality firmly in place, Thomas even goes so far as to make frequent use of Aristotle’s dictum that “a man is properly said to be ‘free’ who is not caused by another but is the cause of himself.”⁸⁹ He takes this to mean, not

⁸³ *ST* I-II, q.13, a. 6. See also *De veritate*, q. 22, a. 6, ad 5.

⁸⁴ *ST* I-II, q. 9, a. 4, ad 3.

⁸⁵ See, for example, the discussion by Robert Kane in “Introduction: The Contours of Contemporary Free Will Debates,” in the first edition of *The Oxford Handbook of Free Will* (New York: Oxford University Press), 10–19. See also, Baer, “Free Will Requires Determinism,” 304–10, esp. 308.

⁸⁶ *ST* I-II, q. 13, a. 6.

⁸⁷ See *ST* I, q. 59, a. 3. See also *ST* I, q. 83, a. Thomas insists that the will is a “rational appetite”: the will is rational because it desires things not blindly but for reasons; it is an appetite because it is inclined toward what is good. The will’s power to will or not will contingent things can be described as to assent/dissent or to accept/reject. See *In III eth.*, lec. 13, no. 4.

⁸⁸ *ST* I, q. 83, a. 1, ad 3.

⁸⁹ *In I metaph.*, lec. 3, no. 7: “Homo proprie dicitur liber, qui non est alterius causa, sed est causa suiipsius.” See also: *SCG* I, ch. 72, no. 8; II, ch. 48, no. 3; IV, ch. 22, no. 5; *ST* I, q. 104, a. 1; I-II, q. 108, a. 1, ad 2. This principle also shows up in *ST*

that a person causes his own being, which is impossible, but that a person is the cause of the formation of his own character; he is responsible for acquiring fully voluntary habits. Thus, human choice takes place within a context of some determined and determinate causes, while the choice of the will for a particular good remains free.⁹⁰

Third Objection: Habit

It is not uncommon for thinkers to posit that habits make fully voluntary actions very difficult, if not impossible, for humans. A version of this claim exists in the thought of Servais Pinckaers. He rejects the theory that *habitus*, understood in a Thomistic sense, is a “habit” understood in modern parlance: “According to this theory,” he writes, “repeated acts develop in the soul a deep-rooted, permanent inclination, called a *habitus*, the nature of which is a sort of habit.”⁹¹ Habits, he argues, imply “the diminution, if not the total exclusion, of reflective consciousness and voluntary decision right at the very beginning.”⁹² He continues:

An action performed on the basis of habit does not entail that attentive presence of reason and that personal engagement of free will [*volonté libre*] which give our actions their whole worth and their entire human value. The automatism of habit deprives an action of precisely the thing that gives it its moral dimension.⁹³

In a similar vein, a number of researchers equate “procedural memory” with habit in general. Two prominent neuroscientists define habit as “that aspect of motor skill learning that refers to acquired, stereotyped, and unconscious behavioral repertoires,” such as typing on a keyboard, driving a car, walking, and so on.⁹⁴ For them, habituation is learning and remem-

II-II, q. 19, a. 4; q. 162, a. 4; and many other places.

⁹⁰ It is worth emphasizing that the preceding exposition regards what I call “absolute causal determinism.” For weaker forms, Thomas Williams argues, “Aquinas’s denial that the will can be subject to necessity of coercion is not equivalent to, and does not entail, the claim that freedom is incompatible with determinism” (“Human Freedom and Agency,” in *The Oxford Handbook of Aquinas*, ed. Brian Davies and Eleonore Stump [Oxford: Oxford University Press, 2014], 199–207, at 206).

⁹¹ Servais Pinckaers, “Virtue Is Not a Habit,” *CrossCurrents* 12, no. 1 (1962): 65–81, at 66.

⁹² Pinckaers, “Virtue Is Not a Habit,” 67.

⁹³ Pinckaers, “Virtue Is Not a Habit,” 67.

⁹⁴ Howard Eichenbaum and Neal J. Cohen, *From Conditioning to Conscious Recollection: Memory Systems of the Brain* (Oxford: Oxford University Press, 2004), 435.

bering “motor programs” that result from repeated “motor performances.”⁹⁵ Such habits seemingly exclude by definition the higher, rational and reflective powers of humans, and therefore the full voluntariness of human action. Similarly, Christopher Coutlee and Scott Huettel describe habits as “highly automated behaviors” that are “overlearned.”⁹⁶ They point out that rats can learn that they can receive cheese upon pressing a lever. Typically, this sort of habituation is flexible. Rats avoid reward-based actions if the reward has been devalued (e.g., if they have eaten their fill of cheese), but, “if the rats are overtrained on the lever-pushing task, . . . they cease to demonstrate this flexibility and will continue to press the lever after reward devaluation even though they are unwilling to eat the cheese.”⁹⁷ This sort of automatic behavior is biologically based, Coutlee and Huettel hold, for when a lesion is made in the brain, preventing the function of the infralimbic medial prefrontal cortex, the dominance of habitual behavior is reduced and more voluntary behavior appears.⁹⁸ Consistent with this finding is that people often feel they have strong “will power” when they definitively reject undesired habits such as overeating or smoking.⁹⁹ Therefore, it seems that there are both philosophic and scientific reasons to hold that habits reduce or even remove voluntariness from human action. Because humans perform habitual actions throughout their waking hours, it could therefore seem that many if not all of our actions are not fully voluntary.

In response to this objection, one can begin by noting that it discusses a single meaning of habit to the neglect of others that allow for fully voluntary action. A number of recent scientific approaches to habit have shown that the term “habit” is used in a number of interlocking ways. Surveying the concept of habit in seventy-seven thinkers across millennia, researchers noticed that there are two main trends in understanding habit.¹⁰⁰ The

The discussion on 439–70 explores the neurological implications of their view.

⁹⁵ Eichenbaum and Cohen, *From Conditioning to Conscious Recollection*, 435.

⁹⁶ Christopher G. Coutlee and Scott A. Huettel, “Rules, Rewards, and Responsibility: A Reinforcement Learning Approach to Action Control,” in *Moral Psychology*, vol. 4, *Free Will and Moral Responsibility* (Cambridge, MA: MIT Press, 2014), 327–34, at 329 and 332.

⁹⁷ Coutlee and Huettel, “Rules, Rewards, and Responsibility,” 331.

⁹⁸ Coutlee and Huettel, “Rules, Rewards, and Responsibility,” 332. See also Etienne Coutureau and Simon Killcross, “Inactivation of the Infralimbic Prefrontal Cortex Reinstates Goal-Directed Responding in Overtrained Rats,” *Behavioural Brain Research* 146, no. 1–2 (2003): 167–74.

⁹⁹ Wegner, *Illusion of Conscious Will*, 92. Similar to the authors cited above, Wegner holds that habits are “unconscious action tendencies,” “compulsive,” and unwilling (*Illusion of Conscious Will*, 90–93).

¹⁰⁰ Xabier E. Barandiaran and Ezequiel A. Di Paolo, “A Genealogical Map of the

“associationist” trend focuses on the notion that, given event A, event B will arise or be favored when event B has previously and repeatedly followed A. Typically A and B are behaviors that arise from sensations (stimulus-responses) and are explained by neuroscience.¹⁰¹ Here habits are interpreted mechanistically, and therefore are conceived of as deterministic automatisms. This is how the objection describes habits. Contrastingly, the “organicism” trend focuses on how humans, like all living things, organize their own behavior on different levels. In this case, habits are “ecological, self-organizing structures that relate to a web of predispositions and plastic dependencies both in the agent and in the environment. In addition, they are *not* conceptualized in opposition to rational, volitional processes, but as transversing a continuum from reflective to embodied intentionality.”¹⁰² Although these trends may seem at odds with each other, which is implied by objection three, both find their roots in Aristotle. “Associationism” emphasizes passages in the Greek thinker’s treatise *De memoria et reminiscencia* that describe the physical and psychological mechanisms of memory and recollection.¹⁰³ Abandoning Aristotle’s debunked physiology, British empiricists from Hobbes to Newton drew on his psychological insights, leaving David Hartley in 1746 to attempt the first “associationist” synthesis of both physical and psychological explanations for human habits.¹⁰⁴ Such explanations, focusing on empirical studies, were favored by behaviorists and current explanations that correlate human habits with machine learning. Meanwhile, “organicism” took hints from Aristotle’s broader biological philosophy, holding that “what originates movement is both pre-eminently and primarily soul.”¹⁰⁵ Although distant from Aristotle in many respects, Hegel for instance agreed that habit was a second nature, and therefore a “mediating term” between the soul’s self-direction and the world-determination in which a person exists.¹⁰⁶ Following Aristotle more

Concept of Habit,” *Frontiers in Human Neuroscience* 8, no. 522 (2014): 7.

¹⁰¹ Barandiaran and Di Paolo, “Genealogical Map,” 5.

¹⁰² Barandiaran and Di Paolo, “Genealogical Map,” 1.

¹⁰³ E.g., Aristotle, *De memoria et reminiscencia* 451b11–453b10.

¹⁰⁴ See H. W. Buckingham and S. Finger, “David Hartley’s Psychobiological Associationism and the Legacy of Aristotle,” *Journal of the History of the Neurosciences* 6, no. 1 (1997): 21–37.

¹⁰⁵ Aristotle, *De anima* 1.2.403b29.

¹⁰⁶ Barandiaran and Di Paolo, “Genealogical Map,” 6. See also David Forman, “Second Nature and Spirit: Hegel on the Role of Habit in the Appearance of Perceptual Consciousness,” *The Southern Journal of Philosophy* 48, no. 4 (2010): 325–52, and Simon Lumsden, “Between Nature and Spirit: Hegel’s Account of Habit,” in *Essays on Hegel’s Philosophy of Subjective Spirit: Imaginative Transformation and Ethical Action in Literature*, ed. David S. Stern (Albany: State University

closely, Félix Ravaisson in 1838 helped establish phenomenological and holistic grounds for understanding habits, a trend that continued through Husserl and Merleau-Ponty and has culminated in a “current sensitivity to the organicist trend” found in areas of neuroscience, embodied-enactive cognitive science, robotics, sensorimotor approaches to cognition, and other empirical approaches for understanding human habits.¹⁰⁷

More and more, habit studies are both following trends of Aristotelian insight and are implicitly attempting to unite associationism and organicism. Ann Graybiel, for instance, describes the neurological foundations of different kinds of habits.¹⁰⁸ According to her, reflexes can be conceived of as a lower form of habits. Animal behaviors, such as the bowerbird’s complex nest building and swan mating rituals, approach fully human habits insofar as both are learned, involve choice and self-motivated goal seeking, and often activate analogous parts of the brain.¹⁰⁹ Meanwhile, addictions and obsessive-compulsive behaviors are “extreme habits” and “disorders” of habits.¹¹⁰ Denis Larrivee and Adriana Gini complete the picture and argue that Aquinas’s definition of virtue as a *habitus operativus bonus* is compatible with empirical explanations of human flourishing through neuroplasticity.¹¹¹ The present study’s work has been to show that Aquinas himself attempts a synthesis of the best scientific explanations of the material and efficient causes (“associationism”), as well as the formal and final causes (“organicism”), of habit. Thus, as we have seen, Thomas understands habit as a reality that exists on many different levels of the human person. According to him, the lower, physical habits are not of themselves incompatible with partly voluntary habits. For example, a person’s phlegmatic temperament is compatible with a cogitative habit of judging one’s surrounding as safe. These lower habits are *dispositions* that may incline the will but do not by themselves move the will. In fact, they are at times compatible with fully-voluntary habits, such as intellectual habits due to study, which one freely chooses in conformity with

of New York Press, 2013), 121–38.

¹⁰⁷ See references in Barandiaran and Di Paolo, “Genealogical Map,” 6.

¹⁰⁸ Ann M. Graybiel, “Habits, Rituals, and the Evaluative Brain,” *Annual Review of Neuroscience* 31 (2008): 359–87.

¹⁰⁹ Graybiel, “Habits, Rituals, and the Evaluative Brain,” 372.

¹¹⁰ Graybiel, “Habits, Rituals, and the Evaluative Brain,” 369–70, 372–75.

¹¹¹ Denis Larrivee and Adriana Gini, “Is the Philosophical Construct of ‘habitus Operativus Bonus’ Compatible with the Modern Neuroscience Concept of Human Flourishing through Neuroplasticity? A Consideration of Prudence as a Multidimensional Regulator of Virtue,” *Frontiers in Human Neuroscience* 8 (2014): art. 731 (4 pp.).

his temperament and cogitative judgment. Furthermore, fully voluntary habits can co-exist with necessary movements of the body and the soul (e.g., digestion and the will's movement toward the universal good), and in this way they incorporate elements of automaticity without violating their fundamental voluntariness. This is borne out by Aquinas's analysis of how habits influence behavior.

Aquinas was familiar with the objection that habits preclude the full voluntariness of human action. In his discussion on whether or not humans have free choice (*liberum arbitrium*), he considers the following objection.¹¹² Human behavior follows deliberation and judgment. But, as Aristotle says, "as each person is, so does the end seem to him."¹¹³ And it is not within our power to be one person or another, "for a person has this [individuality] from birth, and, as some hold, depends on the disposition of the stars for this."¹¹⁴ We should note that the dispositions discussed here include what I have called non-voluntary habits, that is dispositions that a person has from general nature or individual nature or that he has acquired after birth but without full deliberation. Hence, the objection may be summarized by saying that "automatic" behaviors that proceed from habits preclude full voluntariness.

In his response, Aquinas agrees that people have many different inclinations that are non-voluntary. For instance, "from their very nature there is in them a necessary appetite for the ultimate end, that is, happiness."¹¹⁵ This is the necessary movement of the will discussed above. It is not contrary to free choice. Rather, in some cases, "something can be necessary and nevertheless voluntary."¹¹⁶ For example, as noted above, the will naturally and necessarily desires the universal good. Also, "the will necessarily abhors misery, and this is because of a natural inclination, which is similar to the inclination of a habit."¹¹⁷ In addition, there are bodily dispositions that are acquired from various sources, such as environment ("the power of the heavenly bodies"), parents ("semen"), and one's particular bodily structure

¹¹² *De veritate*, q. 24, a. 1, obj. 19. Following Daniel Westberg's account, and contrary to Lottin, Lonergan, et al., I hold that Aquinas did not change his position on the will from the *De veritate* (ca. 1256–1259) to the *De malo* (ca. 1270). The account below shows that one can find a consistency in Thomas's thought on the will throughout his various works. See Daniel Westberg, "Did Aquinas Change His Mind about the Will?" *The Thomist* 58 (1994): 41–60.

¹¹³ Aristotle, *Nicomachean ethics* 3.5.1114a31.

¹¹⁴ *De veritate*, q. 24, a. 1, obj. 19.

¹¹⁵ *De veritate*, q. 24, a. 1, ad 19.

¹¹⁶ *De veritate*, q. 24, a. 12, ad sc 10.

¹¹⁷ *De veritate*, q. 24, a. 12, ad sc 10.

(“matter of the one conceived”).¹¹⁸ Previous sections in this chapter have shown how these dispositions can be considered as non-voluntary habits that arise from general nature, individual nature, and extrinsic causes. By such habits, “the soul in some way is made prone to choose something, insofar as the rational soul’s choice is inclined by the passions, which are in the sensitive appetite, which is a bodily power that follows the dispositions of the body.”¹¹⁹ But these habits are not determinative of fully-voluntary action. They may result in actions of a human, but they do not cause human action, for the rational soul does not receive from them any inclination that necessarily causes a person to choose one particular thing over another.¹²⁰ Indeed, the variability of human choice is an indication that it has a freedom beyond that of animal actions that proceed from instinct alone.¹²¹ Thus, non-voluntary habits do not impede free choice as such, for diverse ways to attain happiness remain choosable.¹²² Furthermore, the rational soul is always free to act or not to act, and therefore it has the power to reject the inclinations and movements of passions at least some of the time.¹²³ Hence, when considering “automatic” behavior, one must consider its source. If it arises from involuntary causes, that is, those which are directly opposed to one’s will, then it results from habits incompatible with free choice. But if automatic behavior is caused by non-voluntary or partly voluntary habits, such as instincts and cogitative powers developed in accordance with nature, then it is compatible with full voluntariness.

Here we come to the crux of the issue: can automatic behavior ever be fully-voluntary in itself? No, if it is initiated wholly without the attention of reason. But action can be initiated by reason even if one’s deliberate attention is not simultaneously present with one’s actual behavior. This could be the case for a person who “spontaneously” moves his hand after having decided to participate in a study that required him to move his hand at some point. Driving home on a commute is a more familiar example of this phenomenon. One can affirmatively posit that this sort of “automatic” behavior is fully voluntary. Aquinas explains the human person as moldable and somewhat non-individualized without fully volun-

¹¹⁸ *De veritate*, q. 24, a. 1, ad 19.

¹¹⁹ *De veritate*, q. 24, a. 1, ad 19.

¹²⁰ *De veritate*, q. 24, a. 1, ad 19.

¹²¹ See *SCG* III, ch. 85, no. 7.

¹²² *De veritate*, q. 24, a. 1, ad 19.

¹²³ See *ST* I-II, q. 13, a. 6. See also, *De veritate*, q. 24, a. 2. Thomas argues that the passions at times can move the will by presenting it an object that seems good and suitable in the moment: *ST* I-II, q. 9, a. 2. Nevertheless, the will remains free in its act; see *De malo*, q. 6.

tary habits: "Subsequently [to non-voluntary habits] man is made 'this person' through a particular acquired habit, of which we are the cause, or by an infused [habit], which is not given without our consent though we are not its cause."¹²⁴ A person can knowingly shape himself and as a matter of course, his self-shaping becomes regular and predictable behavior. Once a person has acquired or obtained fully voluntary habits, "it results that man efficaciously desires the end consonant with those habits."¹²⁵ Hence, explaining Aristotle's observation that a man's character shapes his judgment, Aquinas says that, when a person has been changed by "a particular disposition," something seems good to him that did not seem good prior to having that disposition.¹²⁶ The reason for this is that, "just as natural appetite or inclination follows the naturally inherent form," as when water congeals because of the structure of its molecules, "so the appetite of the animal follows the apprehended form," that it has estimated as helpful or harmful.¹²⁷ This is also the case for humans. Our imagination is not always directly under our deliberate control, nor are the passions or cogitative power. However, these are shaped by many choices, which habituates them to apprehend something as good and suitable (or not).¹²⁸ For example, by constantly acting in preference for honor over suffering, a person can habituate his passions and cogitative power to judge that death is not an absolute evil, but only relatively so. Hence, one who delightedly encounters dangers for the right end is brave.¹²⁹ Now, a character-forming habit tends to generate the same actions that produced it.¹³⁰ Nevertheless, because such a habit stems from one's free choice, it does not introduce necessity, nor remove freedom of choice.¹³¹ Thus, Thomas can accurately say that deeply rooted habits "always deliver a similar act."¹³² This "always" is predictive, not determinative: "While the habit remains, the person cannot long remain without acting according to the habit."¹³³ A habit will predict action, but as a habit is a state of ready potential, its very nature prevents it from actualizing itself. Accordingly, Thomas insists that "free choice is able

¹²⁴ *De veritate*, q. 24, a. 1, ad 19.

¹²⁵ *De veritate*, q. 24, a. 1, ad 19.

¹²⁶ See *ST* I-II, q. 9, a. 2 (see Aristotle, *Nicomachean Ethics* 3.5.1114a31).

¹²⁷ *In III eth.*, lec. 13, no. 1.

¹²⁸ *In III eth.*, lec. 13, no. 6.

¹²⁹ *In II eth.*, lec. 3, no. 2. On the judgments of the brave, see Aristotle, *Nicomachean ethics* 3.7.1115b7–24.

¹³⁰ *In II eth.*, lec. 3, no. 12.

¹³¹ *De veritate*, q. 24, a. 1, ad 19.

¹³² *De veritate*, q. 24, a. 12, ad 19.

¹³³ *De veritate*, q. 24, a. 12, ad 13.

to make use of a habit or not.”¹³⁴ Therefore, “one who has a habit is able to issue an act contrary to the habit, for it is not necessary for him always to make use of the habit.”¹³⁵ In sum, a person can sometimes act contrary to a habit, at least by rejecting its inclination, “although with difficulty.”¹³⁶

Intellect and Will: the Foundation of Fully Voluntary Acts

Thomas argues that fully voluntary habits have the full *ratio* of *habitus*. Because fully voluntary habits proceed from fully voluntary acts, this section considers the nature of the human act as sourced in the interaction of an individual’s intellect and will. To understand this dynamic interior activity, we must explore Thomas’s understanding of freedom on the one hand, and “reason” on the other hand. We will consider both in turn, and see how they relate to one another.

From a Thomist perspective, “the will is free insofar as it is not necessitated.”¹³⁷ In this light, one can identify three kinds of freedom.¹³⁸ **First**, there is *freedom from necessity or restraint*. As we have seen, Thomas forcefully argues that the will, although necessarily moved toward the universal good, it is not bound by any necessity in the performance of its own act.¹³⁹ Natural or acquired dispositions, whether helpful or harmful, only serve to enhance or to weaken voluntariness. They cannot eradicate it.¹⁴⁰ **Second**, there is *freedom of choice*, that is, the freedom to choose this object or that object and pick among alternatives, or at least to will or not will an apprehended good. **Third**, there is *freedom for good or evil*, a freedom to order this or that object toward a good or evil end. Because *freedom from restraint* was largely the focus above, here I will discuss the remaining kinds of freedom and how they relate to fully voluntary actions and habits.

Free judgment (*liberum arbitrium*) proceeds from the deliberate will.¹⁴¹ Aquinas sees the will (*voluntas*) as a passive and an active power. It is passive insofar as a person can move himself by his will only after he apprehends a particular thing as good with his reason. In other words, the “rational appetite” must be formed by reason in order to move itself toward what his reason apprehends as good and suitable for him.¹⁴²

¹³⁴ *De veritate*, q. 24, a. 12, ad 13.

¹³⁵ *De veritate*, q. 24, a. 12, ad 19. See also *De malo*, q. 6.

¹³⁶ *De veritate*, q. 24, a. 12, ad 13. See also *ST I-II*, q. 49, a. 2, ad 3.

¹³⁷ *De veritate*, q. 22, a. 6.

¹³⁸ *De veritate*, q. 22, a. 6.

¹³⁹ See *ST I-II*, q. 13, a. 6; *De malo*, q. 6.

¹⁴⁰ See *ST I-II*, q. 49, a. 2, ad 3.

¹⁴¹ See *ST I-II*, q. 1, a. 1.

¹⁴² *ST I-II*, q. 9, a. 1, ad 3.

Particular objects at times can move the will through the passions, for a particular good's attractiveness can sway the reason to see only its good side and thus move the will toward it.¹⁴³ However, in principle the will is active and free, for as we have seen, it moves itself toward the good; it also moves the reason. Animals cannot help but desire things they estimate as good for themselves.¹⁴⁴ But humans can direct their reason to consider what is lacking in a particular good, why it may be inappropriate in one's concrete circumstances, and how it may be undesirable from different perspectives.¹⁴⁵ Therefore, the will is free to choose particular goods or not. This is why Aquinas says, "humans necessarily have free choice from the very fact that they are rational."¹⁴⁶ Reason frees the will from necessarily and always pursuing particular goods, and it thereby keeps the will open to the universal and complete good. Therefore, "the root of all freedom is established in reason."¹⁴⁷

Reason is the root of all freedom because it is the power by which a person can come to know and understand universal truths, and thereby obtain reasons for acting. The power of the rational appetite does not consist in choosing among present options—even dogs have a sort of facility to do this.¹⁴⁸ In common with all animals, humans receive impressions of the world through their exterior senses, which in turn affects their interior sensory powers. Unlike animals, though, humans are able to extract or abstract the "essences" of impressions received through their senses, imagination, memory, or cogitative judgment.¹⁴⁹ The intellect is able "to consider the nature of the [intelligible] species apart from its individual qualities represented by the phantasms [in the imagination or memory]."¹⁵⁰ The process of abstraction is performed by the "agent" or active intellect.¹⁵¹ The "possible" or passive intellect, in turn, receives the essences or intelligible species of things.¹⁵² This is the highest cognitive power in humans, an

¹⁴³ *ST* I-II, q. 9, a. 2.

¹⁴⁴ *De veritate*, q. 22, a. 4.

¹⁴⁵ *ST* I-II, q. 10, a. 2.

¹⁴⁶ *ST* I, q. 83, a. 1.

¹⁴⁷ *De veritate*, q. 24, a. 2.

¹⁴⁸ See *ST* I-II, q. 13, a. 3, ad 3.

¹⁴⁹ For a general overview, see Norman Kretzmann, "Philosophy of Mind," in *The Cambridge Companion to Aquinas*, ed. Norman Kretzmann and Eleonore Stump (Cambridge: Cambridge University Press, 1993), 128–59. See also Chad Ripberger, *Introduction to the Science of Mental Health* (Denton, NE: Sensus Traditionis Press, 2007), 51–71.

¹⁵⁰ *ST* I, q. 85, a. 1.

¹⁵¹ *ST* I, q. 85, aa. 3–4.

¹⁵² See *SCG* II, ch. 73.

immaterial power by which a person understands, judges, and reasons.¹⁵³ Although the active intellect is determined in its activity, the passive intellect can be directed by the will and is therefore susceptible to habituation.¹⁵⁴ Understanding therefore is the proper operation of a human as human; it distinguishes him from all other animals.¹⁵⁵ On account of his intellectual power, a person is able to act not only by feelings or imagination, but also by reason. Insofar as the intellect considers actions to be performed, it can be called the “practical reason.”¹⁵⁶ Deliberately willed action, then, is the necessary way for a person to achieve ultimate happiness.¹⁵⁷ An action is fully voluntary (or perfectly voluntary) when it proceeds from a person’s knowledge of his end, whether ultimate or proximate, “under the *ratio* of ‘end,’ and its proportion to those things which are ordered to the end itself.”¹⁵⁸ The end is the good sought by the agent as suitable for himself; it is the “principle” of a human act because it provides a reason for acting.¹⁵⁹

Here we encounter the third type of freedom listed above. Humans have the freedom not only to will or not will something, and freedom not only to choose one thing or another. They also have the freedom to transform themselves through their choices for what they apprehend as good. This is *freedom for good or evil*, the freedom to order this or that chosen object toward a good or evil end.¹⁶⁰ This can also be called “moral freedom,” or in the language of Pinckaers, “freedom for excellence.”¹⁶¹ As a foundation for explaining moral freedom, Aquinas makes a crucial distinction between “making” (*facere*) and “acting” (*agere*): “‘Making’ is an action passing into outward matter, such as building, sawing, and the like; whereas ‘acting’ is an action abiding in the agent, such as seeing, willing and the like.”¹⁶² *Making*, then, is primarily a transitive action: it involves acting upon a thing exterior to oneself. *Acting*, in contrast, is primarily a self-reflexive action: though exterior actions and objects may be involved,

¹⁵³ See *SCG* II, ch. 62, no. 7. Thomas lists the acts of understanding (basic apprehension), judgment, and reasoning in *ST* I, q. 79, a. 8, and q. 85 a. 5.

¹⁵⁴ See *ST* I, q. 79, a. 6.

¹⁵⁵ *ST* I, q. 79, a. 6.

¹⁵⁶ See *ST* I, q. 79, a. 11. See also Thomas Osborne, “Practical Reasoning,” in Davies and Stump, *Oxford Handbook of Aquinas*, 276–83.

¹⁵⁷ See *ST* I-II, q. 6, prol.

¹⁵⁸ *ST* I-II, q. 6, a. 2.

¹⁵⁹ *ST* I-II, q. 14, a. 2.

¹⁶⁰ *De veritate* q. 22, a. 6.

¹⁶¹ See Servais Pinckaers, *The Sources of Christian Ethics*, trans. Mary Thomas Noble, 3rd ed. (Washington, DC: Catholic University of America Press, 1995), esp. 354–78.

¹⁶² *ST* I-II, q. 57, a. 4.

acting above all shapes the interior person. Eliminative materialists see the human being as an *object* of concern and something to be acted upon exteriorly. Whether on the macroscopic or microscopic level, for them, the human is purely material, a lump of clay that is shaped by material and efficient forces. In contrast, Aquinas argues that the human is an agent, an acting person who shapes himself through his fully voluntary acts.

Human action is almost endlessly complex, as can be seen by Thomas's explanation of the "structure of the human act" in questions 11–17 of the *prima secundae* of the *Summa theologiae*, and the subsequent centuries of commentary on it. Developing an insight into human action that Pinckaers articulated, Lambert Hendriks argues that Thomas presents twelve "elements" of a complete human act.¹⁶³ One can schematize the elements in the following way.¹⁶⁴

	Affirmation	Intention	[Deliberation]	Decision	Execution	Fruition 
Cognition	Apprehension	Ordination	Counsel	Judgment	Command	
+	+	+	+	+	+	
Volition	Simple wishing	Intention	Consent	Choice	Use	Enjoyment (<i>frui</i>)

These are not discrete and linear stages that careen back and forth between intellect and will, as Charles-René Billuart thought. The bold arrow indicates a single movement of the united intellect and will (cognition and volition) coursing through every point of a human act. The "partial acts" of affirmation, intention, and so on together comprise an intrinsically unified and fully voluntary act. Just as the soul as the formal cause enlivens and actualizes the body, so the intellectual motivation for an act, that is, the goodness of the object recognized by the reason, serves as the formal cause of an act that is efficiently caused by the will: "the intellect proposes to the will its object, and the will causes the external action."¹⁶⁵ This is because the will tends only toward something that is intellectually apprehended as good for the agent here and now.¹⁶⁶ Thomas insightfully says, "the will

¹⁶³ Hendriks, *Choosing from Love*, 279. See the seminal article by Servais Pinckaers, "La structure de l'acte humain suivant S. Thomas," *Revue thomiste* 55 (1955): 393–412.

¹⁶⁴ See Hendriks, *Choosing from Love*, 283. See also, Michael S. Sherwin, *By Knowledge and By Love: Charity and Knowledge in the Moral Theology of St. Thomas Aquinas* (Washington, DC: Catholic University of America Press, 2005), 84, fig. 1 ("Stages of Action").

¹⁶⁵ *ST* I-II, q. 13, a. 5, ad 1.

¹⁶⁶ See *ST* I-II, q. 8, a. 1.

and the intellect mutually include one another: for the intellect understands the will, and the will wills the intellect to understand.”¹⁶⁷ Pinckaers argues that, for Thomas: “Free will is not a faculty distinct from reason and the will. It is a prolongation of each. . . . Freedom is the outcome of the mind’s inclination to truth and the will’s inclination to goodness.”¹⁶⁸ When the human act is interrupted, the elements of the act can resemble chronological stages, but they are never complete in themselves. Furthermore, as Hendriks perceptively notes: “Partial acts that are attributed to either reason or will, are never exclusively isolated on that level. Therefore Thomas states that e.g. choice is of the will, but also rational; and likewise counsel is of reason, but it belongs to the will as well.”¹⁶⁹ Considering partial acts entirely on their own, separate from the organic unity of human action, which includes a unified reason and will, is an act of dissection that destroys as it organizes. Had Libet considered the unifying role of reason through voluntary choice, he may not have fallen into the trap he set for himself.

The intellect–will unity present in human choice highlights the fundamental unity of the human agent and his actions. A human’s appetites belong to the entire person, and through deliberate choice, he links them together by understanding their relation to a particular end. Hence, in a chosen act, there is a continuity between the sensory and rational appetite: reason can share rightness with the whole of a person’s affectivity by directing it toward the good. It follows that the only way correctly to understand what an agent does is to take into consideration his intellectual, volitional, and affective dispositions toward the good.¹⁷⁰ These shape the fully voluntary act, and *are shaped by* the fully voluntary act. This can be seen, for example, in the element or partial act of “consent.” Consent (*consentire*), Aquinas says, applies one’s appetitive movement to something that is to be done.¹⁷¹ It is the human subject’s way of moving himself by directing his desires toward an action, as when a person consents both to telling the truth and to the delight he finds in telling the truth.¹⁷² Thomas explains: “In non-rational animals, the determination of the appetite toward something is found to be only passive. But consent indicates a determination of

¹⁶⁷ *ST* I, q. 16, a. 4, ad 1.

¹⁶⁸ Pinckaers, *Sources of Christian Ethics*, 381 (Altered to make the verbs present tense).

¹⁶⁹ Hendriks, *Choosing from Love*, 287. He refers to *ST* I-II, q. 14, a. 1, ad 1.

¹⁷⁰ See Hendriks, *Choosing from Love*, 184.

¹⁷¹ *ST* I-II, q. 15, a. 2.

¹⁷² See *ST* I-II, q. 15, a. 4, ad 1.

the appetite that is not passive alone, but is more active.”¹⁷³ Thus, through acts freely performed with deliberate will, a person “determines” himself by consenting to direct his appetites to a particular end.

Speaking generally, Aquinas describes intending an end as “determining” oneself toward that end.¹⁷⁴ Fully voluntary actions have a circular character, for self-determination “constructs the agent’s identity according to the choices he or she makes. And this remains so, until the human agent decides to make contrary choices.”¹⁷⁵ As we have seen above, this does not mean that one’s voluntary actions somehow eradicate voluntariness. Rather, the end specifies one’s actions toward a particular good, and because a human comes to resemble what he desires, the intended end also shapes the agent.¹⁷⁶ As Daniel De Haan writes: “Through the efficacy of the will, the person transcends the natural determinations of the physical order and *becomes* the sort of person who chooses and performs certain axiologically specified activities.”¹⁷⁷ It follows that fully voluntary acts do not simply come and go, leaving no trace behind like a foot stepping through a flowing stream. Rather, they change the agent who performs them by producing fully voluntary habits, which are supremely important in human life: “Habit both shows and makes the man, for it is at once historic and prophetic, the mirror of the man as he is and the mold of the man as he is to be.”¹⁷⁸

NEV

¹⁷³ *ST* I-II, q. 15, a. 2, ad 1.

¹⁷⁴ *ST* I-II, q. 1, a. 2.

¹⁷⁵ Hendriks, *Choosing from Love*, 270.

¹⁷⁶ See *ST* I-II, q. 26, a. 2. See also, *ST* I-II, q. 62, a. 3. Recognizing love as the foundation of all action, Hendriks puts it this way: “The agent becomes what he loves” (*Choosing from Love*, 270).

¹⁷⁷ Daniel D. De Haan, “Thomistic Hylomorphism, Self-Determination, Neuroplasticity, and Grace: The Case of Addiction,” *Proceedings of the American Catholic Philosophical Association* 85 (2012): 99–120, at 100.

¹⁷⁸ Arthur T. Pierson, *George Muller of Bristol* (Eugene, OR: Wipf and Stock, 1999; repr. 1899), 137.