# 10

# Reason and Spontaneity Reconsidered

*Lisa Raphals*

## Prefatory Note

In his work on the *Zhuangzi* and elsewhere, Angus Graham was consistently occupied by two key themes and concerns. One is the importance of skill knowledge, and this essay was originally intended as a treatment of issues pertaining to skill knowledge in excavated texts that became available since Graham's death. Another is the importance of informed, spontaneous performance. This is of course a preoccupation in Graham's treatment of the *Zhuangzi*. But it receives more sustained attention as central to the argument of *Reason and Spontaneity* (1985). I remember that in conversations within the last few years of his life, Angus had expressed pleasure that "anyone had read it," so it seems fitting to center this essay on the arguments of that book, one of his few essays into formal philosophy. This is not to say that anyone would expect—or want—the arguments and presentation of that book—including an interlude in the form of a long poem—to echo the language or style of contemporary analytic philosophy.

In *Reason and Spontaneity*, Angus Graham argued that humans are agents who choose our ends and purposes but, in doing so, encounter Hume's understanding that no normative statement about values can be derived logically from declarative statements about facts.[1] As Graham puts it: "I am not an instinctive being like an animal" (more on this later). "I have to choose, and on the [Humean] position we are here considering, all imperatives are ungrounded."[2]

Graham argues that rationalists and moralists have been unwilling to acknowledge that much of what they value arises from:

> the vast area of human behaviour which shares the spontaneity of physical events. Physical events are caused, human action is willed; causes determine effects, the will is free. To the extent that activities are spontaneous it appears that they belong to the realm of the caused (which in the case of biological process is obvious enough), and that he is a free agent only to the extent that he learns to direct them.[3]

Graham also emphasizes that he is not suggesting that we become more spontaneous, but rather that when we reason about means, ends, and principles, we need not be troubled about "that little puzzle about passing from 'is' to 'ought.' " Once we recognize that our ultimate goals are spontaneous, the only necessary first principle becomes "Be aware."[4] He also rejected Kant's solution, which was to ground ends and values in reason.[5]

It is important to note how Graham uses the key term "spontaneity," because in English the term has two distinct meanings: something that is self-caused and something that is random and uncaused. Graham ascribes "spontaneous" behavior to characters in the *Zhuangzi* in the former sense. Characters who butcher or carve or swim "spontaneously" do so by virtue of a cultivated disposition that makes their actions effortless yet efficacious.

Graham argues that our ends are grounded not in reason but in inclinations: "We find ourselves compelled in practice to start from inclination as from perception, questioning inclinations like perceptions only when they conflict, without reason having authorized the initial step." But without perception and inclination, reason has nothing to engage with; when it does have them, it can criticize and guide.[6] He does not define this term, but he seems to take inclinations as generated by psychological states, but what is particularly important about them is that they are spontaneous.[7]

As Yukio Kachi points out, Graham advances both a proposal and an empirical thesis. The proposal is a general theory of value that grounds *all* values in the imperative to "be aware."[8] The empirical thesis addresses causal connections between awareness and motivation in a wide variety of contexts.

Graham describes this proposal as a "quasi-syllogism," which goes as follows:[9]

> In awareness of everything relevant to the issue (= everything which spontaneously moves me one way or the other), I find myself moved towards X, overlooking something relevant I find myself moved towards Y.
>
> Be aware.
>
> Therefore, let yourself be moved towards X (= choose X as end).[10]

The quasi-syllogism is central to two of Graham's most important books: the philosophical study *Reason and Spontaneity* (1985) and, indirectly, *Disputers of the Tao* (1988). In *Reason and Spontaneity*, he states that the book's line of thinking arose in connection with his work on and translation of the *Zhuangzi*.[11]

Graham rejects both Kantian rationalism and romantic irrationalism in favor of a notion of self in which awareness integrates reason and spontaneity:

> Like the animals, I am an organism which spontaneously senses, analogizes to the already experienced, and tends towards or away. Unlike them, I am self-conscious, can detach myself from spontaneous process in order to analyze and criticize perceptions, analogies and reactions, choose ends from my spontaneously emerging goals, choose means to my ends. In becoming self-conscious I require an imperative by which to choose between spontaneous tendencies as they veer with changing awareness, but only one, "Be Aware."[12]

This view is in part explicitly derived from the *Zhuangzi*, but the reasons are important. Graham, as elsewhere, identifies the *Zhuangzi* with what he calls anti-rationalism, as distinct from irrationalism. Irrationalism refuses to submit spontaneity to the test of awareness; anti-rationalism recognizes the need to "be aware" but rejects reason as the basis for awareness or the link between awareness and action.[13]

Graham's argument is both philosophical and empirical, and I want to respond to both in the light of subsequent arguments in philosophy and subsequent research in several areas of psychology and biology. In the first section I address resonances between several strands of research on autonomy and Graham's account of inclination informed by awareness (rather than unmitigated reason) as the basis for agency and choices among ends. I also argue that this account does not require Graham's "anti-rationalism." Much scholarly ink has been spent on his account of the *Zhuangzi* in particular as anti-rationalist. Rather than trying to engage in those debates (on which I have a view), I instead point out that they are not necessary to his view of agency. In the second section, I turn to his empirical argument and show how it is supported by recent research on the biology of agency. Finally, in the third section I take up one point where I think his argument may miss the mark: in his rigid distinction between humans and animals.

## Graham's Awareness and Non-Kantian Autonomy

One problem with Angus's account is the assumption—by no means unique to him—that the only or the primary account of agency in the "Western"

tradition is Kantian. Three other approaches resonate far more with his dictum to "Be aware" than does the Kantian rational agent he takes as his philosophical opponent.

A powerful alternative to Kantian personal autonomy is the Millian agency, which combines an account of individual autonomy with a naturalistic account of action.[14] On Mill's account, individuals choose to implement their desires, but they also own or take charge of them, a state Mill describes as "having a character." Someone whose desires and impulses are not her own has no more character than a steam engine.[15] Character requires a person to own or prioritize certain desires over others, but these priorities must arise from natural causes. John Skorupsi argues that resisting strong desires for good reasons is the paradigm of an autonomous act; and autonomy is the capacity to respond to good reasons. Autonomy, as he puts it, consists of recognizing and responding to a reason.[16] This is interestingly close to Angus's "Be aware."[17]

But other strands in contemporary ethics also suggest non-Kantian approaches to the problems of choice and autonomy. Jonathan Schneewind suggests five sources for renewed interest in autonomy since about 1970: new ideas on free will and philosophy of action; medical ethics and bioethics; feminism, debates on liberalism within political thought, and neo-Kantian ethics.[18] While these developments all occurred within Angus's lifetime, they were not central to his interests (philosophical or sinological), and much of their growth has come in the years since his death. But these approaches also suggest accounts to fact and value that prioritize awareness.

An example is Harry Frankfurt's account of "second-order desires" in his famous 1971 essay "Freedom of the Will and the Concept of a Person." Frankfurt notes that humans reflect on our desires and form "second-order" desires based on that self-conscious reflection. The ability to form second-order desires is what distinguishes humans from animals and underlies free will, which consists in being able to choose which first-order desires to act on. In later writings Frankfurt augments this account with notions of wholeheartedness.[19] Again, Frankfurt's second-order desires bear some interesting resemblances to Angus's "Be aware."

Frankfurt also made a now-classic argument that what defines humanity is not rationality but freedom of the will. He argues that the usage of "person" as an entity with both mental and physical properties also applies to some animals, as well as imaginable non-humans such as extraterrestrials. But neither animals nor extraterrestrials—who have both psychological and material properties—are *persons* as the term is normally used.[20] His point is not to elucidate a dividing line between human and nonhuman species (a point to which I will return later) but rather to identify the attributes that are most fundamental to human persons, attributes that we could in principle share with nonhumans:

> What interests us most in the human condition would not interest us less if it were also a feature of the condition of other creatures as well. Our concept of ourselves as persons is not to be understood, therefore, as a concept of attributes that are necessarily species-specific. It is conceptually possible that members of novel or even of familiar nonhuman species should be persons.[21]

He distinguishes the rational agent from the "wanton," who may be rational, but who has no second-order desires:

> What distinguishes the rational wanton from other rational agents is that he is not concerned with the desirability of his desires themselves. He ignores the question of what his will is to be. Not only does he pursue whatever course of action he is most strongly inclined to pursue, but he does not care which of his inclinations is the strongest.[22]

But a non-wanton, such as an unwilling addict, *cares* which of his first-order desires gains the upper hand.[23] He identifies the capacity to form second-order volitions with the ability to have or lack free will, a capacity he considers essential to persons and a distinguishing mark of the human condition.[24] Freedom of will is thus different from freedom to do what one wants, a point on which Graham would agree!

## The Biology of Choice and Agency

Graham emphasizes that much human behavior shares the spontaneity of physical events, and he notes that spontaneous actions seem to belong more to the realm of the caused than to freedom of the will.[25] Recent research in several sciences has clarified some of the ways in which spontaneous inclinations may be said to be caused.

David Hume famously argued that the self is a bundle of momentary impressions strung together by the imagination. On his view, the self is a (useful) narrative fiction. This view continues in contemporary "narrative" theories of the self.[26]

Contemporary neuroscience suggests that an ensemble of neurological processes make up the experience of the self. They are distributed across several regions of the brain, with the result that there is no self-contained neurological "self."[27] On this model of the self, spontaneous action plays an important part in several ways. First, important aspects of consciousness precede, and are not accessible to, reflective thought. As Shaun Gallagher puts

it, some structures of consciousness are "prenoetic": hidden from immediate phenomenological experience—things that "happen before we know it."[28] They also tend to be inaccessible to reflective consciousness. Gallagher asks how consciousness and cognitive processes—including perception, memory, and imagination—are structured prenoetically by virtue of being embodied.

## Prereflective awareness: phenomenal body image and prenoetic body schema

Central to Gallagher's account of the embodied mind is a distinction between "body image" and "body schema," which he describes as two different but closely related systems:

> A body image consists of a system of perceptions, attitudes, and beliefs pertaining to one's own body. In contrast, a body schema is a system of sensory-motor capacities that function without awareness or the necessity of perceptual monitoring. This conceptual distinction between body image and body schema is related respectively to the difference between having a perception of (or belief about) something and having a capacity to move (or an ability to do something).[29]

As Gallagher explains it, body image involves more than perception; it can include mental representations, beliefs, and attitudes insofar as they concern one's own body. By contrast, body schema involves motor capacities, abilities, and habits that enable (and constrain) movement and posture. But body schema also applies to objects of perception and intention beyond one's own body. The difference is like the difference between perception of movement and actual movement. The body schema operates below the level of self-referential intention. It involves "tacit performances" that are almost automatic: "in this sense the body-in-action tends to efface itself in most of its purposive activities."[30] But intentional, goal-directed activity can also shape movements controlled by the body schema. Thus a body schema is not a form of consciousness, but it can support (or undermine) the intentional activities of the body image.[31]

This prenoetic performance helps to structure consciousness but does not explicitly show itself. It affects and structures the style and organization of our relations with our environment, including habitual postures and movements. As Gallagher puts it, "the carpenter's hammer becomes an operative extension of the carpenter's hand."[32] In other words, it also potentially informs spontaneous and skilled performance. The interest of this distinction for Graham's work is that both spontaneous inclination or action *and* the

skill knowledge he makes so much of significantly involve what we might call the *extended* action of body schemas, beyond the workaday monitoring of the body to far more complex activities.

### Somatic markers

Other research gives similar accounts of choices that are in some sense physically "caused." For example, according to Antonio Damasio's somatic marker hypothesis, the brain associates physiological signals (somatic markers) and the emotions generated from them with past actions and outcomes, with the result that somatic markers bias decisions toward some behaviors and away from others.[33] Other research suggests that affective reactions are often faster and more basic than cognitive evaluations, and that anticipatory emotions may be as important as cognitive evaluations in making risky decisions.[34]

## THE SELF IN THE BRAIN: SELF-REFERENTIAL PROCESSING

Several neuroscientists have argued for the existence of a physical self, variously described as a sensorimotor "proto-self," distinguished from several other "selves" by the stimuli to which it responds and the domain in which it acts.[35] Georg Northoff notes that this "self" resembles what William James (1890) called the physical self, and interacts with several other "selves" with distinct domains of activity. These include what has been called a "minimal self" or "core or mental self" (and resembles James's account of a mental self) and what has been called an "autobiographical" or "narrative self" (with some resemblance to James's spiritual self).[36] But the identification of these distinct domains of selfhood in the brain leaves unanswered the question of what links them together in what we commonly recognize as a self or person.

It has been suggested that this sense of self is created in the brain through "self-related processing" (SRP).[37] This kind of processing operates on prereflective stimuli associated with a strong sense of selfhood.[38] SRP operates through a central integrative neural system made up of cortical midline structures (CMS), understood both anatomically and functionally.[39] CMS seem to be involved in self-referential processing across several domains, including language, spatial perception, memory, emotion, facial recognition of oneself and others, and perception of agency and the ownership of one's movements.[40] These structures are probably not unique to humans, and may be homologous across mammalian species. That issue is addressed in the following discussion.

Recent research from a range of disciplines, including neuroscience, psychology, cognitive science, phenomenology, and philosophy of mind, suggests the physical basis of emotion, reason, and decision-making (rather than the nature of the identity of the "self" who thinks, decides, etc.) This possibility gives Graham's dictum to "Be aware" an expanded meaning. While prenoetic processes truly seem beyond the range of self-reflective activity, basing our decisions on maximal awareness includes awareness of somatic states and inclinations.

But this research exacerbates another problem Graham tackles: how "caused" action can be free. Research by Benjamin Libet suggests that unconscious cerebral processes initiate apparently voluntary acts (such as choosing to flick one's wrist) before the onset of any conscious intention to act. This sort of scenario might seem to undermine free will, but as Gallagher points out, free choice is not about tiny time intervals in the firing of neurons. Free will concerns intentions and purposive actions, however much somatic states and prenoetic knowledge are an important part of our thought processes and decisions.[41]

## Animal awareness

I now turn to a different problem in Graham's account of spontaneity and awareness: the clear boundary he draws between his "aware" self and "instinctive" animals. Both accounts in the *Zhuangzi*—his preferred texts for the kind of agency he is advocating—and recent biological evidence mostly after his time suggest that this distinction could be reconsidered and nuanced.

### ANIMAL AWARENESS IN THE *ZHUANGZI*

Despite his extensive work on the *Zhuangzi*, Graham never explores how or why the *Zhuangzi* attributes awareness to animals (and plants), but several bear mention.

The *Zhuangzi* describes "destiny" (*ming* 命) in the biological senses of life span (*sheng ming* 生命) and "years allotted by heaven" (*tian nian* 天年). The text is striking in its insistence that *ming* in this sense is not limited to humans.[42] Understanding *ming* as life span nuances a continuum between human and animal in the *Zhuangzi*. By juxtaposing the allotments of *ming* and the "natural" life spans allotted by Heaven (*tian nian*), we see a continuum in the "fates" in living things. This account of *ming* locates our human decisions within a natural continuum of living things, mirroring the Zhuangzi's attitudes toward human roles in the cosmos. It suggests an appreciation of what in modern terms we would call the shared biological heritage between humans and animals.

Second, the *Zhuangzi* recommends animals as models because of their freedom from destructive emotions. Animals do not fret over changes in their environment, and are not upset by the illusory shifts of human emotions. In *Zhuangzi* 21, Lao Dan advises Confucius:

> Grass-eating animals are not upset by a change of pasture; water creatures are not upset by a change of stream. They go along with minor change, provided they do not lose the great constancies. [Be like this] and happiness, anger, grief, and pleasure can never enter your breast.[43]
>
> 草食之獸不疾易藪，水生之蟲不疾易水，行小變而不失其大常也，喜怒哀樂不入於跲次。

On this account, animals do not understand or care about their *ming*, but they respond naturally to change and are not vexed by the illusion of happiness. Here, the *Zhuangzi* describes felicity as a quality not limited to humans and even seems to recommend the equanimity of animals. This state of felicity accords with *dao* and with *ming* and makes it possible to live out one's allotted life span.

Elsewhere, the *Zhuangzi* suggests that all living things have a natural life span, determined in part by the norms for particular species. For example, the morning mushroom lives a day; the long-lived trees of southern Chu live for centuries.[44] Each individual—animal as well as human—has a *ming*, but it is subject to circumstance, and there is no guarantee that any individual (animal or human) will survive to complete its *ming*.

But despite animals and even plants who reflect upon their own actions, the text does—as Graham seems to believe—distinguish between the agency of humans and other living things. Animals are caught in traps because of their nature, not because of individual decisions or mistakes. And even animals that live out their allotted *ming* do not control or deliberately create the characteristics that "save" them.[45] In this sense, the *Zhuangzi* maintains an ontological difference between humans and other living things. Our life spans are determined by combinations of accident and individual circumstance and choice, not by class membership. Only humans make deliberate choices that optimize their *ming*.

## HIEROCLES ON ANIMAL SELF-PERCEPTION

A comparable claim appears in the "Elements of Ethics" of the second-century (CE) Stoic philosopher Hierocles, in a papyrus discovered at Hermopolis in 1901.[46] Hierocles argues that what motivates all animals is "self-ownership,"

a reflexive version of *oikeiōsis*: "appropriation" or "ownership" of oneself. This disposition manifests in animals' universal instinct for self-preservation. However, as Hierocles argues, self-preservation requires self-awareness, since an animal must perceive itself before it perceives anything else:

> One must know that an animal immediately, as soon as it is born, perceives itself [*aisthanetai heautou*].[47]
>
> Animals perceive their own parts [*merōn tōn idiōn aisthanetai*]. Thus, winged creatures, on the one hand, are aware of the readiness and aptness of their wings for flying, and, on the other hand, every land animal is aware both that it has its own members and of their use; and we ourselves are aware of our eyes and ears and other parts.[48]
>
> Every hegemonic faculty [*hēgemonikē*] begins with itself. In this way a cohesive structure [*hexis*], which binds together what pertains to it, is first binding of itself.[49]

The concept of self-perception (*heautou aisthanesthai*, *antilēpsis*, or *sunaisthēsis*) seems to be a Stoic invention.[50] Hierocles's animal self-perception is not grounded in experience or learning; it is pre- or nonconceptual.[51]

What then is it? Writing in 1986, James Brunschwig and Anthony Long identified it with what neurologists call proprioception, a kind of "muscular sensation" that allows an animal to monitor and adjust the state and position of its limbs and other moving parts.[52] Long argues that the Stoics were interested in the principles that make animals function as well-organized wholes, enabling them to coordinate movement and maintain appropriate physical orientation of themselves and their bodily parts. Further, the interaction of exteroception and proprioception produces the self-image (*phantasia*) that animals use in self-perception and self-concern.[53]

My point is not to identify Hierocles's animal "self-perception" with either Stoic or post-Cartesian self-consciousness, but rather to suggest interesting parallels between the minimalist *Zhuangzi* account of animal felicity, the more substantial Stoic account of *oikeiōsis*, and biological evidence about animal brains and bodies. Subsequent research may allow us to refine this picture.

## EMPIRICAL EVIDENCE FOR ANIMAL AWARENESS AND AGENCY

Several findings from evolutionary biology allow us to nuance this picture. In the nineteenth century, Charles Darwin argued that the differences in

the mental lives of animals is one of degree, not of kind.[54] Now, there is some empirical evidence for the existence of a neurological "core self" across species. This evidence is of different kinds. Bernhard Baars argues that the homologues of the human brain structures that govern cognition and conscious perception also occur in animals, and that evidence from animal anatomy and physiology suggests that "consciousness of one kind or another may be biologically fundamental and phylogenetically ancient."[55] Jaak Panksepp argues for a "Spinozan-type dual-aspect monism" in which affective consciousness arises from complex neural networks that control instinctual emotional actions.[56] The problem, as Panksepp puts it, is that certain ontological positions assume that consciousness is based upon the human rationality and command of language.[57] If we understand consciousness in this way (as Graham appears to do), it is easy to conclude that animals lack consciousness. But Panksepp and others present substantial experimental evidence for internal affective states in animal minds. For example, human emotions depend on subcortical brain systems that are shared with other mammals and are controlled by similar regions of the brain.[58] The point for Graham's argument is that, on Panksepp's dual-aspect monism, raw emotional feelings do not require processing or interpretation by any higher cognitive apparatus. Rather, they reflect the neurodynamics of emotional operating systems and their associated brain mechanisms.[59]

Moving the argument for animal consciousness and agency one step further, some cognitive scientists argue that many animal species possess the core ability of "self-related processing," which coordinates internal processes such as emotions, motivations, and homeostasis with external sensory stimuli in relation to goal-directed activities. Mammals have the capacity to relate bodily states, intrinsic brain states, and environmental stimuli to life-supporting goal orientations. It has been suggested that self-related processing operates through a central integrative neural system made up of subcortical-cortical midline structures (SCMS) that are homologous across mammalian species.[60]

Finally, studies of animal group behavior suggest that the superior awareness of a few individuals in a collective can alter the behavior of collective groups. Recent research has begun to reveal the principles of collective decision-making in animal groups and the complex relationship between individuals and group-level properties in the collective behavior of organisms such as swarming ants, schooling fish, flocking birds, and so forth. In such groups, alignment among individuals (the tendency to move in the same direction as immediate neighbors) makes it possible to transmit information about a change in direction as a rapid wave, extending over a great distance. This behavior makes it possible to amplify local fluctuations in order to react to threats such as predators, since the turning movement

of the group creates a larger "sensorium" than individual perception ever could. Thus, one individual detecting a predator and changing direction can rapidly amplify into a propagating wave of turning, so that many individuals or even a whole group turn away from a threat. Nor is it dependent on the specific leadership of any one individual, nor does it require deliberate signaling.[61]

The interest of this phenomenon for the present discussion is that the spontaneous "turning" behavior of animals, based on "awareness" of danger and spontaneously acting to protect both the individual and the group meets at least some of the requirements of Graham's quasi-syllogism. I don't wish to push this point beyond where it will go, or claim that such behavior is equivalent to the kind of awareness he is recommending in *Reason and Spontaneity*. But rather I want to make the more modest point that we can view awareness as a continuum.

In summary, a range of biological evidence over the past fifteen or twenty years significantly extends our account of animal consciousness beyond proprioception. Evidence for a neurological "core self," for self-related processing in the brain, and for collective decision-making by animal groups suggest far more continuity between animals and humans than had been previously supposed. Here, perhaps, Angus missed the mark. But these developments make his core account of spontaneity and awareness all the more suggestive and prescient.

## Notes

1. A. C. Graham, *Reason and Spontaneity: A New Solution to the Problem of Fact and Value* (London: Curzon Press, 1985), which is in turn informed by two earlier works: the book *The Problem of Value* (1961) and "Taoist Spontaneity and the Dichotomy of 'Is' and 'Ought,'" in *Experimental Essays on Chuang-tzu*, ed. V. Mair, 3–23 (Honolulu: University of Hawai'i Press, 1983).

2. Graham, *Reason and Spontaneity*, 2.

3. Ibid., 7.

4. Ibid., 9.

5. Ibid., 10.

6. Ibid., 10.

7. Ibid., 2–3, 7–9.

8. Yukio Kachi, "*Reason and Spontaneity* by A. C. Graham," *Philosophy East and West* 40.3 (1990): 389.

9. For more on the quasi-syllogism, see Harold Rosemont, Jr., "Remarks on the Quasi-syllogism," *Philosophy East and West* 42.1 (1992): 31–35.

10. Graham, *Reason and Spontaneity*, 7.

11. Graham, *Reason and Spontaneity*, 184.
12. Graham, *Reason and Spontaneity*, 151.
13. Kachi, "*Reason and Spontaneity* by A. C. Graham," 396.
14. As Onora O'Neill puts it, contemporary admiration for individual autonomy owes more to Mill than to Kant because the former attempts to provide a naturalistic account of individual autonomy. O. O'Neill, *Autonomy and Trust in Bioethics* (Cambridge: Cambridge University Press, 2002), 29–34
15. J. S. Mill, *On Liberty*, in *Utilitarianism and on Liberty*, ed. M. Warnock, 88–180 (Oxford: Blackwell, 2003 [1863]), 135.
16. J. Skorupski, *John Stuart Mill* (New York: Routledge, 1989), 33.
17. It may seem counterintuitive to introduce Mill into any argument on China and autonomy because of his very negative view of China as the antithesis of the "character" that he recommends. For this view, see Mill, *On Liberty*, 142, 144–145, cf. 161, 165, 174. Nonetheless, this negative view is separate from the merits of his account of agency and autonomy.
18. J. B. Schneewind, "Autonomy after Kant," in *Kant on Moral Autonomy*, ed. O. Sensen, 146–168 (Cambridge: Cambridge University Press, 2010).
19. H. G. Frankfurt, *The Importance of What We Care About: Philosophical Essays* (Cambridge: Cambridge University Press, 1988).
20. H. G. Frankfurt, "Freedom of the Will and the Concept of a Person," *Journal of Philosophy* 68.1 (1971): 5.
21. Ibid., 6.
22. Ibid., 11.
23. J. D. Velleman, "The Way of the Wanton," in *Practical Identity and Narrative Agency*, ed. C. Mackenzie and K. Atkins, 169–192 (New York and London: Routledge, 2008).
24. Frankfurt, "Freedom of the Will and the Concept of a Person," 14.
25. Graham, *Reason and Spontaneity*, 7, discussed earlier.
26. D. Hume, *A Treatise of Human Nature*, ed. L. A. Selby-Bigge, 3 vols. (Oxford: Clarendon, 1960 [1888]), 1.4.6:252.
27. S. Gallagher, "Philosophical Conceptions of the Self: Implications for Cognitive Science," *Trends in Cognitive Science* 4.1 (2000): 14–21.
28. S. Gallagher, *How the Body Shapes the Mind* (Oxford: Clarendon Press, 2005), 2.
29. Ibid., 24.
30. Ibid., 24.
31. Ibid., 26.
32. Ibid., 32, 35.
33. A. Damasio, *Somatic Markers and the Guidance of Behavior* (New York: Oxford University Press, 1991), 217–299; A. Damasio, *Descartes' Error: Emotion, Reason, and the Human Brain* (New York: G. P. Putnam's Sons, 1994).
34. G. Loewenstein, E. Weber, C. Hsee, and N. Welch, "Risk as Feelings," *Psychological Bulletin* 127.2 (2001): 267–286.
35. For the proto-self, see A. Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (New York: Harcourt Brace, 1999), and J. Panksepp, *Affective Neuroscience: The Foundations of Human and Animal Emotions* (New

York and Oxford: Oxford University Press, 1989) and "The Periconscious Substrates of Consciousness: Affective States and the Evolutionary Origins of the Self," *Journal of Consciousness Studies* 5.5–6 (1989): 566–582.

36. See G. Northoff et al., "Self-Referential Processing in Our Brain: A Meta-Analysis of Imaging Studies on the Self," *NeuroImage* 31 (2006): 440. For "minimal" and "narrative" self, see Gallagher, "Philosophical Conceptions of the Self," and H. L. Gallagher and C. D. Frith, "Functional Imaging of 'Theory of Mind,'" *Trends in Cognitive Science* 7.2 (2003): 77–83. For core or mental self and autobiographical self, see Damasio, *The Feeling of What Happens*.

37. G. Northoff and F. Bermpohl, "Cortical Midline Structures and the Self," *Trends in Cognitive Sciences* 8 (2004): 102–107; Northoff et al., "Self-Referential Processing in Our Brain"; A. D'Argembeau, P. Ruby, et al., "Distinct Regions of the Medial Prefrontal Cortex Are Associated with Self-Referential Processing and Perspective Taking," *Journal of Cognitive Neuroscience* 19.6 (2007): 935–944.

38. S. Gallagher and D. Zahavi, "Phenomenological Approaches to Self-Consciousness," *The Stanford Encyclopedia of Philosophy*, ed. E. N. Zalta, https://plato.stanford.edu/entries/self-consciousness-phenomenological/; D. Legrand, "How Not to Find the Neural Signature of Self-Consciousness," *Consciousness and Cognition* 12.4 (2003): 544–546, and "Being a Body," *Trends in Cognitive Science* 9.9 (2005): 413–414.

39. Cortical midline structures include the medial orbital prefrontal cortex (MOFC), the ventromedial prefrontal cortex (VMPFC), the sub/pre- and supragenual anterior cingulate cortex (PACC, SACC), the dorsomedial prefrontal cortex (DMPFC), the medial parietal cortex (MPC), the posterior cingulate cortex (PCC), and the retrosplenial cortex (RSC). See Northoff and Bermpohl, "Cortical Midline Structures and the Self," and Northoff et al., "Self-Referential Processing in Our Brain," 441–442.

40. Northoff et al., "Self-Referential Processing in Our Brain," 446–449.

41. B. Libet, "Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action," *Behavioral and Brain Sciences* 8 (1985): 529–566; cf. Gallagher, *How the Body Shapes the Mind*, 238.

42. For a detailed account of this evidence, see L. A. Raphals, "The *Zhuangzi* on *ming*: Perspectives and Implications," in *What Is Philosophy: China*, ed. R. Gassmann and R. Weber (Leiden: Brill, 2014).

43. *Zhuang*zi 21, 714; cf. Graham 1981, 131.

44. *Zhuang*zi 1, 39.

45. For example, oxen with white foreheads, pigs with upturned noses, and humans with piles cannot be used as sacrificial victims (4, 177), but they do not choose these features.

46. First published in H. von Arnim, *Hierokles: Ethische elementarlehre* (Pap. 9780) (Berlin: Klassikertexte, 1906), Heft iv, just after his *Stoicorum Veterum Fragmenta*. This absence may have contributed to his inaccessibility; cf. A. A. Long, "Hierocles on *oikeiōsis* and Self-Perception," *Stoic Studies* (Berkeley and Los Angeles: University of California Press, 1996), 251–253.

47. Hierocles I.35–40, text and translation by G. Bastiannini and A. A. Long, "Hierocles' Elementa Moralia," in *Hierocles the Stoic: Elements of Ethics, Fragments, and Excerpts*, ed. I. Ramelli, trans. D. Konstan (Atlanta: Society of Biblical Literature, 2009), 4–5; cf. von Arnim, *Hierokles*, and A. A. Long, "Representations of the Self

in Stoicism," in *Psychology: Companions to Ancient Thought*, ed. S. Everson, 102–120 (Cambridge: Cambridge University Press, 1991), 1, 107.

48. Hierocles I.50–55, trans. Bastiannini and Long, "Hierocles' Elementa Moralia," 4–5.

49. Hierocles VI.10–15, trans. Bastiannini and Long, "Hierocles' Elementa Moralia," 16–17.

50. Aristotle (*De sensu* 7 448a26) uses the phrase *autou aisthanesthai*, but clearly of a human being. For claims that *oikeiōsis* is a Stoic invention, see C. O. Brink, "Οἰκείωσις and Οἰκειότης: Theophrastus and Zeno on Nature in Moral Theory," *Phronesis* 2 (1956): 123–145, and Long, "Hierocles on *oikeiōsis* and Self-Perception," 250–254. For claims for a peripatetic origin, see H. von Arnim, "Arius Didymus' Abriss der peripatetischen Ethik," *Sitzungsberichte der Academie Wien* 204.3 (1926). Brink, "Οἰκείωσις and Οἰκειότης," presents a detailed history of the issues and evidence.

51. Long, "Hierocles on *oikeiōsis* and Self-Perception," 256.

52. J. Brunschwig, "The Cradle Argument in Epicureanism and Stoicism," in *The Norms of Nature: Studies in Hellenistic ethics*, ed. M. Schofield and G. Striker, 113–145 (Cambridge: Cambridge University Press, 1986), 137; Long, "Hierocles on *oikeiōsis* and Self-Perception," 258. This term was used by the neurologist Charles Sherrington to distinguish between exteroceptive, interoceptive, and proprioceptive perception. These referred to the sensation of external stimuli (such as vision, hearing, etc.), internal sensations, and "muscular sensations" concerned with the mechanics of locomotion. See C. Sherrington, *The Integrative Action of the Nervous System* (New Haven: Yale University Press, 1906), 116, 131–135 (reflexes), 308, 316–320 and especially 336–345 and 347–349.

53. Long, "Hierocles on *oikeiōsis* and Self-Perception," 258–260.

54. C. Darwin, *The Expression of Emotions in Man and Animals* (London: John Murray, 1872; rpt. New York: Oxford University Press, 3rd ed., 1998), 127.

55. B. J. Baars, "Subjective Experience Is Probably Not Limited to Humans: The Evidence from Neurobiology and Behavior," *Consciousness and Cognition* 14 (2005): 7. We can infer human subjective experiences from behavioral and brain evidence, and similar evidence exists for other mammals and perhaps other nonmammalian animals. But biological evidence suggests that subjectivity may be conserved in species with humanlike brains and behavior.

56. Panksepp, *Affective Neuroscience*, "The Periconscious Substrates of Consciousness," and "Affective Consciousness" (Panksepp's research in this field is too extensive to quote in full). For discussion of animal cognition, see J. Parvizi and A. Damasio, "Consciousness and the Brainstem," *Consciousness and Cognition* 14 (2005): 135–159; A. K. Seth et al., "Criteria for Consciousness in Humans and Other Mammals," *Consciousness and Cognition* 14 (2005): 119–139; and S. R. Taylor, W. Parker, R. W. Mitchell, and M. L. Boccia, *Self-Awareness in Animals and Humans: Developmental Perspectives* (Cambridge: Cambridge University Press, 2006).

57. Panksepp, "Affective Consciousness," 39.

58. These core emotional networks shared by all mammals include (using Panksepp's capitalization convention) FEAR, SEEKING, anger-RAGE, sexuality-LUST, nurturance-CARE, separation distress-PANIC, and joyful PLAY. Panksepp, *Affective Neuroscience* and "Affective Consciousness."

59. Panksepp, "Affective Consciousness," 64.

60. Northoff and Bermpohl, "Cortical Midline Structures and the Self"; Northoff et al., "Self-Referential Processing in Our Brain"; G. Northoff and J. Panksepp, "The Trans-Species Concept of Self and the Subcortical-Cortical Midline System," *Trends in Cognitive Sciences* 12.7 (2008): 259–264.

61. See I. D. Couzin, "Collective Cognition in Animal Groups," *Trends in Cognitive Sciences* 13.1 (2008): 36–43. For supporting studies, see I. D. Couzin, "Collective Minds," *Nature* 445 (2007): 715, 715; I. D. Couzin and J. Krause, "Self-Organization and Collective Behavior in Vertebrates," *Advances in the Study of Behavior* 32 (2003): 1–75; L. Conradt and T. J. Roper, "Consensus Decision-Making in Animals," *Trends in Ecology and Evolution* 20 (2005): 449–456; and D. J. T. Sumpter, "The Principles of Collective Animal Behavior," *Philosophical Transactions of the Royal Society B: Biological Sciences* 361 (2006): 5–22. It has also been proposed that there are important commonalities between neuronal processes and collective animal behavior. For turning behavior, see I. D. Couzin et al., "Effective Leadership and Decision-Making in Animal Groups on the Move," *Nature* 433 (2005): 513–516.