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The self is virtual, the will is not illusory

Book Review of Wegner, D.M. (2003) The Illusion of Conscious Will. MIT Press

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Abstract:

Wegner makes an excellent case that our sense of ownership of our actions depends on multiple factors, to such an extent that it could be called virtual or even illusory. However, two other core functions of will are initiation of movement and maintenance of resolution, which depend on our accurate monitoring of them. This book shows the will to be not an imponderable black box but an increasingly accessible set of specific functions.

Text

This is an encyclopedic analysis of the ways that our sense of volition fools us. Wegner has assembled a remarkably broad range of examples where people behave without being aware of deciding to, falsely believe that they are deciding, or, most subtly, experience a decision as occurring at a different time than objective evidence places the decision. I think that he overreads the implications of these examples when he calls conscious will an illusion. Our eyes sometimes fool us, too, as when we mislocate an underwater object or are led by contextual cues to misjudge the size or distance of an object, but we still say that we are actually seeing it. The famous moon illusion does not make the moon illusory. Wegner has many valuable things to say, but the examples he assembles to argue against conscious will apply to only parts of what his own material demonstrates to be a complex phenomenon. I submit that what he-- and we-- call "conscious will" comprises at least three somewhat independent processes, two of which depend on the person's accurate sense of their operation. Dealing with these two first: The initiation of movement and the maintenance of resolution, perhaps Wegner's "little dabs" of will and its "long lasting property," respectively, each has its kind of proprioception within the mind (brain?) itself; we rely on its accuracy from minute to minute, day in and day out. One of Wegner's own examples illustrates the initiation part. The amputee who is conscious of moving nonexistent toes is obviously not relying on peripheral sensations. She reports mentally doing what, in someone with toes, accurately governs their movements. By abnormally removing the peripheral component of this process nature has isolated Hume's "impression we feel and are conscious of, when we knowingly give rise to any new motion of our body." The associated movements are gone, but the experience of will in this trivial sense of connecting mind and body remains, and there is no reason to believe that the subject's consciousness of its operation *per se* is inaccurate, despite the illusory downstream effects. This consciousness is different in kind from mere association; if a tree branch actually moved without my proprioception of will every time I thought of its moving, it would not feel as if I suddenly had a previously unrecognized muscle, but instead would probably give me the eerie sensation of having my mind read (see Gray Walter's experiment in Dennett, 2003, p. 240).

Resolution is more important. It is where both strength and freedom of will reside, and our beliefs about it have practical effects on self- and social control. Defending direct perception of it is hard because, while observers have agreed on a number of functional properties-the effects of practice, of reference to principles, of single lapses, etc. (Ainslie, 2001, pp. 119-120)—they have not agreed on a way of describing the thing itself. I have argued that it is not a thing, or unitary sensation, at all, but a process analogous to bargaining, and that it is just as directly reportable as the events of interpersonal bargaining are (ibid. pp. 90-104). Briefly: The way we make our intentions consistent is to perceive our current decision as a test case for how we will decide similar choices generally, so that our expected reward from consistent intention is staked on "cooperating" with our future selves, and sharply reduced if we "defect" to an impulsive alternative. Although people conceive the mechanics of this contingency variously, under the rubrics of morality, principle, personal intention, and even divine help, we uniformly experience a big stake as resolve and a lapse as a loss of part of this stake, engendering guilt. The proprioception here is the recursive self-monitoring process, the testing of our will, which is not prominent in behaviors we are confident of executing, but which is glaringly evident when we resolve to resist a favorite vice, or to dive into a cold lake. The mind's compass to which Wegner refers is not the same thing as our will but is a component of it, as integral as the thermometer is to a thermostat. Furthermore, the sensitive dependence of our behavior on our compass readings-- the fed-back outcome of tentative prospects -- is enough to account for the experience of freedom, our sense that we are participating in the outcome but that even we cannot be sure of its final form in advance.

Is there an illusion, then? A penetrating chapter on "virtual agency" (not in the Precis) suggests a more defensible illusion, involving a *third part* of the experience of will— neither the part that connects mind to action in little dabs nor the long-lasting property

that manages resolve, but the part that connects our actions with our idea of our selves. The evidence of this chapter indicates that it is not our sense of action that is illusory (I like "virtual" better), but our sense of self. Wegner argues for possibilities that I have also advocated: that a person interprets her own actions in the same way she interprets others'—empathically, as I put it, so that the ownership of both kinds of action and the notion of ownership itself are open to construction, and facts without major practical implications are chosen for belief on the basis of how regularly they occasion emotion (Ainslie, 1995, 2001, pp. 175-189). Wegner says that the conscious will departs when people feel possessed or depersonalized—that they have lost their empathic sense of self, their "emotion of authorship," leading them to feel that they do not own their activities. Nevertheless, these people continue to perform consciously the other two functions of will, initiating actions and maintaining resolutions. The ownership component could indeed be called illusory or virtual or emotional, but it is not essential for the functioning of conscious will.

Most of the examples of failed consciousness in the book depend on either a split of consciousness or activity below a threshold of consciousness. The splits remove the reporting self's "emotion" of agency by physically (split brain, alien hand) or motivationally (dissociation and probably hypnosis) blocking this part-self's awareness of what are often fully formed initiations and resolutions. Subthreshold phenomena include mannerisms (which can be shaped even in sleep-- Granda & Hammack, 1961), small drifts of activity that can be summed into ouija-like phenomena, and the preliminary brain processes made tangible by recent advances in neurophysiology and imaging. We can now see a decision in its early stages, perhaps when it is merely being mooted and not yet a decision-The "mirror neurons" excited by watching somebody else's movements do not always, or even usually, result in your own actual movement (Iacoboni et.al., 1999); perhaps Libet's electrodes (1999) are also registering the first idea of a behavior, not the decision to go forward with it, a possibility that would reduce the significance of the observed temporal offset from the conscious moment of choice. With powerful cranial magnets we can even skip the perceptual phase of suggestion and predispose directly to one alternative over another (Brasil-Neto et.al., 1992), but the capacity to manipulate an early stage of will does not argue against its existence. Science sees submerged parts of an iceberg that have never been seen before, but as yet nothing that renders the conscious parts inaccurate.

The wealth of material in this book—brain imaging, electrophysiology, social experiments, anthropological observations, and thought experiments—demonstrates that the will is not a unitary organ with no discernable components and an either-or outcome structure, the black box traditionally favored by philosophers (e.g. Pap, 1961, p. 213). It is divisible into separate operations, some of which can be measured as lasting finite, very short times. These elements may relate to one another in a variety of ways, including, as I have suggested, in recursive feedback systems, while being experienced only as summation phenomena—an experience that is incomplete, as Wegner demonstrates, but normally valid as far as it goes. What used to be called conation turns out to be a field as big as cognition. This book goes a long way toward defining its tasks.

References

Ainslie, G. (1995) A utility-maximizing mechanism for vicarious reward. *Rationality* and Society 7, 393-403.

Ainslie, G. (2001) Breakdown of Will. New York, Cambridge U.

Brasil-Neto, J. P., Pascual-Leone, A., Valls-Sole, J., Cohen, L. G., and Hallett, M. (1992) Focal transcranial magnetic stimulation and response bias in a forced choice task. *Journal of Neurolog, Neurosurgery, and Psychiatry* 55, 964-966.

Dennett, Daniel C. (2003) Freedom Evolves. Viking.

Iacoboni, M., Woods, R. P., Brass, M., Bekkering, H., Mazziotta, J. C. & Rizzolatti, G. (1999) Cortical mechanisms of imitation. *Science* 286, 2526-2528.

Libet, B. (1999) Do we have free will? Journal of Consciousness Studies 6, 47-57.

Pap, A. (1961) Determinism, freedom, moral responsibility, and causal talk. In S. Hook (Ed.) *Determinism and Freedom in the Age of Modern Science*. New York, Collier.