Wegner (2002) has produced a thought-provoking idea – conscious will is the by-product of an error-prone causal learning system – and an entertaining recitation of a number of phenomena supporting his thesis. Some of the empirical data lack the experimental rigor of today, but there is indeed ample support for the existence of illusions of conscious will. Although there is much to like about Wegner's book, there are two issues on which I will focus my attentions – a missing link in his model, and the societal and religious implications of a broad acceptance of his thesis.

In his consideration of the experience of conscious will, Wegner proposes a model (summarized in Fig. 3.1 of his book) in which the (conscious) intention of doing an action consistently precedes the action only because they both arise from the same source (an unspecified unconscious thought) and the intention occurs earlier than the action. Thus, conscious will is an illusion because the intention has no direct causal link to the action that it purportedly causes. The intention appears to have caused the action because it satisfies at least three of Hume's cues-to-causality, temporal priority, temporal contiguity and covariation, and, perhaps, spatial contiguity (if one can locate thought in space). Causal learning and inference is now known to be quite complex, involving interactions of various types and an interaction between time and contingency (e.g., Cheng & Novick 1991; Shanks et al. 1998; Young et al. 2000a; 2000b). Be that as it may, any induction of causation is subject to error and thus may be illusory.

Throughout my reading of his book, I was persistently bothered by the notion that this illusion might be unnecessary – why would our species need to feel like we intended our actions when the mere consequence of our actions could serve the purpose of selecting the appropriate responses for various situations in the future (à la Skinner)? Does the illusion have any benefit to us as a species? Apparently, Wegner was bothered by the same question as revealed in his final chapter, "The Mind's Compass." He likens the will to an *authorship emotion,* a feeling of responsibility for our actions, and proposes that this emotion affects our future behavior. Thus, experiencing the illusion of free will does have consequences. This supposition suggests that there is a missing link in Figure 3.1 from the experience of conscious will backward to the production of future unconscious causes of thoughts and actions. The experience of conscious will may indeed have an effect on our species if it serves to alter our future mental states, thus raising will from an epiphenomenon to a true cause of behavior. But, its causal effects are distal – the intention did not cause the action that immediately followed it (see Fig. 3.1), but the experience of the efficacy of the intention would affect future actions by altering the likelihood of future unconscious thoughts.

What then are the consequences of not experiencing free will? Wegner suggests that we would be amoral, psychologically unhealthy individuals, prone to depression, anxiety, and a general feeling of helplessness. Perhaps. However, he fails to consider the behavior of other species – do other species experience free will and if not, are they amoral and psychologically unhealthy? Perhaps. Without the ability to disable this experience in ourselves or others, answering such questions belongs in the realm of speculation. Although the speculations raised in the final chapter of the book are thought provoking, they are not definitive because of the difficulty (impossibility?) of measuring mental experiences (Uttal 1998). Does a criminal truly feel no responsibility for his actions or is he simply better at suppressing the normal visible responses associated with feelings of guilt?

The potential costs of an acceptance of Wegner's thesis are disturbing, as he readily acknowledges in his final chapter. The results could be abdication of personal responsibility and an undermining of traditional religious morality. If my actions are merely the byproduct of my environment, then the environment is to blame when I fail, commit a crime, or sin. These attitudes seem increasingly prevalent in today's society, especially with an appeal to biological (genetic) determinism. A corollary not as readily accepted, however, is that the environment should also receive credit when I succeed, do a good deed, or follow God's laws. This asymmetry of attitudes about responsibility is so prevalent that it has its own name – the fundamental attribution error.

The core tenets of most religious schools of thought actively dissuade a blaming or crediting of the environment; rather, they advocate personal responsibility for the consequences of one's actions. Although faiths differ in many ways, God is typically viewed as one who metes out justice for one's sins and rewards for one's good deeds, and not as an arbitrary force of nature. Thus, any school of thought that advocates an absence of free will (e.g., Skinner's behaviorism or Wegner's illusory free will) works in opposition to most contemporary religious thought. Is this a battle that Wegner wishes to fight?

Wegner never effectively addresses the consequences of a widespread acceptance of his thesis. He seems to say that although free will is an illusion, it is one that we should all maintain because "the illusion makes us human" (p. 342). Fortunately, the data that he cites, although representing a wide array of situations under which we do experience illusory causation, can only prompt an induction, not a deduction, of his thesis. It is still possible that many of my experiences of conscious will are not illusory; and that is an "illusion" that I will continue to comfortably harbor.

Conscious will and agent causation

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Abstract: Wegner (2002) fails to (1) distinguish conscious will and voluntariness; (2) account for everyday willed acts; and (3) individuate thoughts and acts. Wegner incorrectly implies that (4) we experience acts as willed only when they are caused by unwilled thoughts; (5) thoughts are never true causes of actions; and (6) we experience ourselves as first performing mental acts which then cause our intentional actions.

1. Although Wegner (2002) attempts to establish psychology on a scientific footing, his conceptualization of the causation of behavior is based on a non-operationalized and subjective distinction between voluntary behavior and behavior experienced as brought about by conscious will. In the experiments Wegner reviews to support his thesis, it is never clear how subjects interpret the instructions to rate how much they intended to perform a particular action. Are they measuring the degree of conscious will experienced? Or reporting the extent that they experienced the action as theirs? Or how much they intended the action? What exactly are they reporting?

2. Wegner's distinction between voluntary and conscious will is also blurred in everyday action. When I walk to work every morning after breakfast, I may have no prior thoughts or plans about my action. Yet it is clear to me that my walking is voluntary, intentional, and my action. If on a particular occasion my act was rude or criminal, I am clearly morally and legally responsible for it. To be sure, there may be times when it is difficult for me to go off to work and I might say it took an "act of conscious will," but I do not experience myself on the other more routine occasions as any less an agent. I conclude that, contrary to Wegner, I experience my walking as an intentional willed action even though I did not observe a regular correlation between prior thoughts and subsequent action.

3. Moreover, not only is my walking to work experienced as intentional and willed, but so is every step I take, as well. Does Wegner require that I observe a correlated thought prior to each step in order for me to have this experience? Of course, each step is itself segmented into smaller intentional and willed units (e.g., lifting my leg, bringing it forward). Does each segment require correlations with prior thoughts for me to infer that I have caused it?

4. Not only are my overt actions, like walking, experienced as willed and intentional, but so are my mental activities, such as try-

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ing to recall a name, or planning my day. However, in Wegner's account, in order for me to have this experience of consciously willing a mental action, *M,* I must have inferred its causation by experiencing a correlation between it and some prior mental event, *P.* If *P* is experienced as consciously willed, it too requires a prior correlated mental event, *Q,* and we are trapped in an infinite regress, with each consciously willed mental event preceded by yet another consciously willed mental event. To escape, we must allow that one mental event in the illusory causal sequence is not experienced as an intentional willed act. It follows from Wegner's thesis, that for me to experience a mental action as intentional, I must experience it as ultimately caused by an unintended unwilled thought. This is both counterintuitive and contrary to our experience of ourselves as agents.

5. Wegner argues that the experience of thoughts and plans causing actions is an illusion. However, there are many instances when our mental activities in fact cause our actions. Consider what happens when I consult my shopping list before buying a cereal. Unless Wegner is wedded to an outmoded notion of causation requiring temporal and spatial contiguity (i.e., the billiard ball model he is fond of), undoubtedly, the list, functioning as a stimulus, is a cause of my response. This type of causation is not different from saying that a reinforcement that occurred several days ago may be a cause for my response emitted today even though spatial and temporal contiguity is lacking. (This type of causation does not, of course, preclude the existence of an underlying causal chain of neuro-physiological temporally and spatially contiguous events.) Suppose, now, I have memorized the list and it appears not on a piece of paper, but rather in my memory. When I recall the list and make my cereal selection, the mental list, serving as an internal stimulus, is a cause of my response. Thus, our actions are often truly caused by internal mental events like planning, recalling, calculating, and reasoning, with no illusions involved.

6. Ultimately Wegner's concept of mind is based on a simple but flawed model. He assumes a self, independent of thoughts and actions, which experiences thoughts and actions distinct from itself. When the self notices a correlation between thoughts and actions, it infers that it intentionally caused the actions. This model in which the self, thoughts, and actions are logically separate, was analyzed and, I thought, demolished a long time ago by Gilbert Ryle (1949). In everyday life we know what it is like to do *A* by first doing *B.* For example, we turn on the TV by first pressing a button, and we lift the box by first pushing down on the lever. But we do not ordinarily experience ourselves as moving our arm by first doing an act of conscious willing, or anything else for that matter. In most cases we experience moving our arm as what Danto (1963) called a "basic action," that is, we simply move it as the act of an agent. When we perform basic actions, we experience them as willed, intentional, and ours. Thus, in contrast to Wegner's model, this alternative model suggests that the inter-dependent cluster of agency experiences – will, intention, self, basic acts – arise simultaneously, both conceptually and developmentally (Zuriff 1975; 1985, Ch. 9). There is no independent self that makes inferences and experiences itself as causing movements by first having thoughts.

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Author's Response

Frequently asked questions about conscious will

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Abstract: The commentators' responses to *The Illusion of Conscious Will* reveal a healthy range of opinions – pro, con, and occasionally stray. Common concerns and issues are summarized here in terms of 11 "frequently asked questions," which often center on the theme of how the experience of conscious will supports the creation of the self as author of action.

In the course of giving talks on conscious will, I have found that the question period after the talk yields spirited interchanges, not to mention the occasional rugburn. Like the commentators on *The Illusion of Conscious Will* (*ICW*) (Wegner 2002), audiences can be polarized. One tactic that I have found useful on these occasions is to summarize my talk as follows:

What you may have heard me say:

- Cognition does not cause action.
- Planning does not influence action.
- There is no intention and no responsibility.
- Life as we know it on earth is now over.

What I was hoping to say:

- Conscious will is based on interpreting one's thought as causing one's action.
- The experience of will comes and goes in accord with principles governing that *interpretive mechanism* and not in accord with a causal link between thought and action.
- The experience of conscious will thus is not direct evidence of a causal relation between thought and action.

This disclaimer suggests that people often read much more into *ICW* than is there. On studying the comments of this excellent field of commentators, I find that something like this has happened again. A variety of intriguing issues have been raised, several of which suggest important amendments to *ICW,* but some of the commentaries involve more being attributed to *ICW* than its pages actually held. Rather than trying to give the talk all over again, I propose to guide us through the question period in a way that will allow everyone out of the auditorium in time for the wine and cheese. To do that, I have organized what I hear people saying into a *FAQ about Conscious Will.*

As a backdrop for these questions, here is a Table with a very rough summary of what I think the commentators were saying. Their remarks can be sorted along two axes: whether they appear to agree or disagree with the main thesis of the book, and how they propose to contribute to the discussion.

This straw poll shows a field of commentators quite evenly divided – indicating that the topic is alive and worthy of continued consideration. *ICW* did not settle the controversy (alas), but it also did not merely pave over the sarcophagus of a question long decided. The ranks of commentators on each side are not too surprising. It is easy to see how **Dennett** would agree with *ICW* – despite the title of his latest book, *Freedom Evolves* (Dennett 2003a) – for example, and the positive votes of **Glymour**, **Ito**, **Kirsch**

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