

Willusionism, epiphenomenalism, and the feeling of conscious will

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epiphenomenalism and free will

Strikingly, the threat of epiphenomenalism is hardly ever mentioned in philosophical discussions of free will.

It does play a crucial role, however, in the scientific attack on free will, i.e., for willusionism, for the claim that the empirical sciences, most notably the neurosciences and (social) psychology, have shown that free will is an illusion.

the illusion of conscious will

Wegner, for instance, famously argues that conscious will is an illusion because the subjective feeling of having consciously willed an action is no reliable indicator that the action has been caused by the corresponding conscious thoughts about the action:

conscious will is an illusion [...] in the sense that the experience of consciously willing an action is not a direct indication that the conscious thought has caused the action ... (2002, p. 2)

apparent mental causation

According to Wegner's THEORY OF APPARENT MENTAL CAUSATION, we erroneously conclude that our actions are caused by the corresponding conscious intentions because we fail to see that the temporal succession of intentions and actions is not due to a direct causal connection, but to the fact that intentions and actions are the joint effects of unconscious neuronal factors:

The unique human convenience of conscious thoughts that preview our actions gives us the privilege of feeling we willfully cause what we do. In fact, however, unconscious and inscrutable mechanisms create both conscious thought about action and the action, and also produce the sense of will we experience by perceiving the thought as cause of the action. (ibid., p. 98)

Wegner's willusionism

Wegner's model of our sense of agency has earned him a growing reputation of being willusionism's "best-known proponent" (Vargas, 2013, p. 325fn8).

However, why should the claim that the feeling of having consciously willed an action is epiphenomenal entail that free will is an illusion?

While one can see why one would want to claim that decisions or actions can be free only if they have been appropriately caused by intentions, motives, values etc. or an act of the will, it is hard to see why someone would want to insist that free decisions or actions must be caused by THE FEELING OF HAVING CONSCIOUSLY WILLED THEM.

three questions

- (1) Is Wegner's willusionism supported by the empirical evidence he cites?
- (2) Assuming that Wegner's claim is supported by the empirical evidence he cites (or otherwise), does this entail that our will does not play a causal role for what we do?
- (3) Assuming that our will does not play a causal role for what we do, does this entail that free will is an illusion?

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apparent mental causation

Wegner's THEORY OF APPARENT MENTAL CAUSATION is based on the Humean idea that we cannot directly and infallibly perceive causal connections: causal judgments are inevitably interpretations and therefore fallible.

Wegner thinks this is exactly what happens in the case of conscious intentions and the corresponding actions: Right before we do something, we typically think about doing it, and an alternative cause is usually not in sight—hence, what else could have caused the action, if not the conscious thought?

apparent mental causation

By interpreting conscious thoughts or intentions as the causes of actions, we create **THE FEELING OF CONSCIOUS WILL**:

The theory of apparent mental causation [...] is this: people experience conscious will when they interpret their own thought as the cause of their action ... (2004, p. 654)

But this experience is said to be an illusion in the sense that it is based on a non-veridical causal judgment: actions are not caused by the conscious thoughts preceding them, but by neurophysiological processes that at the same time ensure the “right” timing of the corresponding thoughts.

apparent mental causation

If the feeling of conscious will indeed arises because we erroneously take the thought about an action to cause this action, then the action and the corresponding feeling of conscious will should in principle be dissociable: without appropriate thoughts about actions we should not experience them as having been consciously willed, while we should experience actions for which we have corresponding thoughts as consciously willed even if we did not in fact perform them.

Wegner calls cases of the first kind “AUTOMATISMS” and cases of the second kind “ILLUSIONS OF CONTROL” (2002, p. 2).

illusions of control

The most important evidence for the existence of illusions of control comes from studies in which subjects can apparently be brought to experience actions performed by others as having been consciously willed.

If a person comes to have a conscious thought about an action that occurs immediately afterwards and has no other apparent cause, then she should experience the action as having been consciously willed even if she herself didn't perform it.

I Spy

In Wegner's famous I Spy study, two subjects used a device with which they could jointly move a cursor across a computer screen that displayed about fifty different objects.

They were instructed to freely roam the cursor for about thirty seconds and then place it on an object of their (joint) choice within a period of ten seconds.

Both were wearing headphones over which they heard music for ten seconds after the initial thirty seconds, indicating that the cursor had now to be placed on an object. Both were also told that during the initial thirty seconds they would hear different words for distraction.

I Spy

Each time the cursor had been placed on an object, they had to rate, independently of each other, on a scale from 0 (“I allowed the stop to happen”) to 100 (“I intended to make the stop”) the degree to which they had intended the joint stop (Wegner & Wheatley, 1999, p. 488).

One of the subjects was a confederate who was instructed via headphones on some of the trials to place the cursor on a certain object (“forced stops”), but was supposed to let the subject decide where to place the cursor on all other trials (“free stops”).

For the forced stops, the subject heard the name of the target object via headphones either thirty, five or one second before (-30, -5, -1) or one second after (+1) the stop.

I Spy



I Spy

Wegner's account predicts that subjects should rate -5-stops and -1-stops as more intended than -30-stops or +1-stops, and this prediction was confirmed.

Moreover, although the subjects apparently had no influence whatsoever on the forced stops, the -5-stops and -1-stops were rated as even more intended than the free stops.

I Spy

Wegner's conclusion from the I Spy study (and similar studies) is that we can be brought to experience actions performed by others as consciously willed:

When participants were reminded of an item on the screen just 1 second or 5 seconds before they were forced to move the cursor to it, they reported having performed this movement intentionally ... (2002, p. 78)

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I Spy: responses

It is entirely correct that the forced -5-stops and -1-stops in the I Spy study were rated closer to the “intended” end of the spectrum, while the -30-stops and the +1-stops were rated closer to the “allowed” and “not intended” end.

On a scale from 0 to 100, -30-stops received an average rating of 43, +1-stops of 47; for -5-stops, the average rating increased to 60, for -1-stops even to 62.

It is also entirely correct that these values of 60 and 62 lie above the average rating of 56 for the free stops.

I Spy: responses

First, it is at best misleading to say that subjects reported the forced stops AS CONSCIOUSLY WILLED or INTENDED, and that the I Spy study makes the subjects

feel they willfully performed an action ... (Wegner & Wheatley, 1999, p. 487)

The average rating was at best 62, which is admittedly closer to “I intended to make the stop” than to “I allowed the stop to happen”, but still a far cry from anything that warrants the claim that the subjects INTENDED the stop—had they experienced the stop as intended, had they felt “they willfully performed an action,” the rating would have been close to 100, not merely at 62.

I Spy: responses

Second, these numbers also put into perspective the prima facie surprising fact that forced -5-stops and -1-stops were on average rated as more intended than the free stops.

That actions performed by others are experienced as more intended than self-determined actions sounds much less spectacular once one realizes that the apparently self-determined free stops received only an average rating of 56, thus approximately right in between “I intended to make the stop” and “I allowed the stop to happen”.

I Spy: responses

Third, it is unclear how significant the average ratings are.

Of the 1479 stops only 204 (= 13,8%) were forced. Since there were four kinds of forced stops, the ratings of 60 and 62 for the -5-stops and the -1-stops are based (ideally) only on 51 trials, while the rating of 56 for free stops averages over $1479 - 204 = 1275$ trials. Even worse, since there were four kinds of forced stops and each subject had four forced stops, it is plausible to assume that each subject had each kind of forced stop exactly once. But that means that the rating for each of the four forced stops resulted (ideally; see below) from a single trial per subject!

I Spy: responses

Moreover, since the confederate sometimes didn't manage to place the cursor on the target object, not all 204 forced stops were considered in the final evaluation. For the four kinds of forced stops, only between 27 and 40 of the 51 trials were taken into account (and only for 8 of the 51 subjects all four forced stops were taken into account; *ibid.*, p. 489fn5).

The ratings of the four kinds of forced stops thus resulted, on average, from at best $147/4 = 36.75$ trials and were compared with the ratings for the free stops which were based on 1275 trials!

I Spy: responses

Fourth, given that the confederate was instructed to let the subjects decide where to place the cursor during the free stops, an average rating of 56 seems surprising and radically mistaken. However, it would be wrong to expect values closer to 100.

Wegner himself reports a range of cases where a person was asked to passively recognize the decisions of others without actively interfering, but despite her best intentions exercised a demonstrable unconscious influence (2002, ch. 6).

I Spy: responses

The confederate in the I Spy study is in a comparable situation: for the free stops to be really free, she has to let the subject move the cursor without interfering with the decision.

If Wegner is right in what he says about facilitated communication elsewhere, it is highly questionable whether the subjects chose all by themselves where to place the cursor in the free stops. Most likely, therefore, their self-assessment of 56 was not far from the truth.

I Spy: responses

Fifth, a rating of 62 for forced -1-stops seems astoundingly high only if one assumes that the “correct” value would have been 0 since only the confederate decided where to place the cursor.

It cannot be ruled out, however, that the subject decided independently of the confederate to stop on the target object as well.

I Spy: responses

While there were about fifty objects on the screen, the number of objects that were serious candidates for any particular stop was quite smaller. At the time the confederate tried to move the cursor on the target object, the music was already playing so that the subject knew that a stop was imminent. Since the target object had to be close enough to the cursor's current position that it could be reached while the music was still playing without any conspicuous manoeuvres that would have debunked the ploy by revealing that the confederate had its own agenda, only those objects were an option that could be reached within less than ten seconds on a natural path of the cursor, given the speed and the movement pattern so far.

I Spy: responses

Moreover, since the subjects were told to wait a short time after the onset of the music before making a stop (*ibid.*, p. 488), the number of options is further reduced to those that could be reached within the next, say, approximately eight seconds.

The fact that the forced stops occurred about midway through the ten seconds music period (*ibid.*) reduces that number even further to objects that could be reached in a natural way within the next approximately three seconds.

I Spy: responses

And finally, the likelihood that the subjects themselves decided to stop the cursor on the very object that the confederate was aiming at during the forced stops is increased even further by the fact that some subjects actively searched for the object whose name they had just heard (ibid., 489), which was thus brought to their focus of attention.

I Spy: responses

It is thus not at all unlikely that the subject accidentally chose the target object.

Especially given the small number of forced stops the effect on the correct average values will be enormous if only a few of them happened to be not forced, but actually willed.

I Spy: responses

All this calls into question the claim that the I Spy study shows that it is possible

to lead people to experience willful action when in fact they have done nothing ... (ibid., p. 487)

and similar standard interpretations: it provides no empirical evidence that the subjects “experience themselves as the author,” “believe that they have caused the movement,” or “believe they have performed an action which was in fact performed by another party”.

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other options

The mere fact that the widely discussed empirical support for Wegner's theory of apparent mental causation is wanting leaves open the possibility that this theory is plausible for other reasons—for instance because automatisms or confabulations in ordinary situations show that our subjective impression of having reliable and veridical access to our conscious motives as the causes of our actions is illusory.

Moreover, even if the studies criticized fail to provide evidence for the theory of apparent mental causation, they may still in other ways support willusionism.

I Spy and free will

Does the I Spy study provide empirical evidence for the claim that free will is an illusion? Is it in any sense a “free-will experiment” (Klemm, 2010, p. 47)?

Apart from its potential support for the theory of apparent mental causation, it is hard to see how it could possibly have any bearing on the debate between willusionists and their opponents.

I Spy and free will

The whole point of Wegner's studies is precisely that the subjects don't do anything—what is done is done by the confederate only, the subjects are merely said to experience a non-veridical sense of agency.

But research on what happens when someone does nothing but only believes she is doing something does not tell us anything about whether someone who actually does something is acting freely or not.

apparent mental causation

Since the experience of a thing is not to be conflated with the thing experienced, the will and the feeling of will are obviously different issues (see, e.g., Hardcastle, 2004): the feeling of conscious will is a feeling that one is willing something, and having this feeling is no less the same as willing something as the perception of an elephant is an elephant.

To show that the feeling that one is willing something is an epiphenomenon is therefore one thing, to claim that willing something is an epiphenomenon something quite different.

phenomenal and empirical will

Wegner's theory of apparent mental causation renders only the feeling of conscious will, i.e., what he calls the "phenomenal will", epiphenomenal, not mental states per se.

Wegner's claim is that an action is not caused by the feeling of having consciously willed it, but he explicitly admits that he does not address the question whether actions are caused by mental states, or by the "intricate set of physical and mental processes" (2002, p. 27) that makes up the "empirical will".

epiphenomenalism and empirical will

Wegner's elaborate plea for the illusion of the feeling of conscious will seems to be more or less irrelevant.

It may be that decisions or actions can be free only if they have been caused, in the right way, by appropriate intentions, beliefs, motives, values etc., or by an act of will, but why should anyone accept that decisions and actions can be free only if they have been caused by the feeling of having consciously willed them?

the feeling of conscious will

Wegner's phenomenology of will becomes even stranger when we are said to "feel that we cause ourselves to behave" (ibid., p. 2) and agents are said "to cause themselves to behave" (ibid., 21).

Agency may be accompanied by the feeling of being the one who acts, but actions are performed by agents, not caused. By acting, we can cause something, but to say that we cause our actions or cause ourselves to behave is at best misleading. Agents don't cause what they do, they do it.

the empirical will

Finally, even if Wegner's phenomenological analysis according to which we believe or feel that our actions are caused by the feeling of having consciously willed them were correct, all that would follow would be that our phenomenology of agency is non-veridical.

Questions of free will, however, would be left untouched, given that what makes us free is not that our actions are caused by the feeling of conscious will, but (at most) that our intentions, desires, motives etc. are efficacious in our decisions and actions in the right way, and Wegner has, as seen above, nothing to say about the causal role of the latter.

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mental causation and free will

Must our decisions and actions be caused by appropriate mental states in order for there to be free will in any philosophically, morally, juridically etc. relevant sense?

The most important reason for thinking that the causal efficacy of mental states is necessary for free will (and thus epiphenomenalism an argument against free will) is that apparently there has to be an INTELLIGIBLE CONNECTION between our free decisions and actions on the one hand and the mental states that lead to them on the other.

mental causation and free will

This idea is based on the insight that decisions and actions that are entirely independent of any preceding mental states would appear random and would not be attributable to us as agents, as e.g. John Locke famously pointed out.

Prima facie, Locke's "conduct of reason" seems to require that mental states are causally efficacious: if decisions and actions are not caused by mental states, then they cannot be traced to our intentions, beliefs, motives, interests, values etc., and thus fail to be intelligible and attributable, calling in question our first-person certainty that we are the free and responsible authors of our own deeds.

mental causation and free will

However, the intelligible connection between what we do and our intentions, beliefs, motives, interests, values etc. required for the “conduct of reason” need not be based on a causal connection between these mental states and our decisions and actions.

If we hold a delinquent responsible for what she has done, then our attribution of freedom and responsibility is based on the consideration that she wouldn't have done what she did had she not decided to do it, that she would have decided otherwise had she realized that she would ruin her life etc.

mental causation and free will

Yet, that she wouldn't have done what she did had she not decided to do it does not entail that she did it BECAUSE she decided to do it, and that she would have decided otherwise had she realized that she would ruin her life does not require that she did not decide otherwise BECAUSE she did not realize that she would ruin her life.

mental causation and free will

Locke's "conduct of reason" requires stable COUNTERFACTUAL DEPENDENCIES between our intentions, beliefs, motives, interests, values etc. on the one hand and our decisions and actions on the other. But these counterfactual dependencies need not be grounded in corresponding causal connections. If decisions and actions are—along the lines of Wegner's theory of apparent mental causation—caused by neurophysiological states which in turn realize or cause the corresponding mental states, then it is entirely correct to say that the delinquent would not have done what she did had she not decided to do it, and that she would have decided otherwise had she realized that she would ruin her life.

mental causation and free will

Willusionists are likely to object that attributing all the causal efficacy to neurophysiological causes would in the final analysis mean that the delinquent was not “really” responsible and not “really” free, because it wasn’t her—her conscious “I” or “Self”—that did whatever was done, but her neurons or her brain (see Kepecs, 2011).

This opposition between us and our brain, however, goes directly against the kind of mechanism characteristic of our modern, scientific image of man and the world we are inhibiting.

mental causation and free will

To oppose us to our brains is not only to commit a category mistake by ascribing characteristics of an organism to its parts, it also resurrects a kind of dualism which (many) philosophers have in fact long overcome.

Within a naturalistic framework, there can be no opposition between us and our brains, and decisions and actions can be our decisions and our actions even though they are realized or brought about by our brains.

mental causation and free will

Hence, even if it turned out that there are compelling philosophical reasons for thinking that mental states are neither reducible to the causally efficacious neurophysiological states nor capable of exerting their own, irreducible causal influence, this would not necessarily expose free will as an illusion.

As long as mental states systematically depend upon the neurophysiological causes of our decisions and actions, whatever is necessary for free will might be the case, even if the mental itself is an epiphenomenon.

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three questions

- (1) Is Wegner's willusionism supported by the empirical evidence he cites? **No.**
- (2) Assuming that Wegner's claim is supported by the empirical evidence he cites (or otherwise), does this entail that our will does not play a causal role for what we do? **No.**
- (3) Assuming that our will does not play a causal role for what we do, does this entail that free will is an illusion? **At least not obviously.**

thank you!

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