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Defending the Role of Unconscious Intentions: A Response to Wegner

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Abstract:

Cognitive science has recently supported and popularized the idea that perhaps free will is but an illusion. With his theory of apparent mental causation, Daniel M. Wegner in particular proposes that our beliefs about intention and the control we exert over our actions are actually based upon other factors and usually occur retroactively. Since many of our actions are determined and preformed outside of awareness, the cause of said actions could then be difficult to locate. Part of Wegner's argument lies in his assumption of brain activity and corresponding behavior as conscious and "controlled" or outside of awareness and unintended.

Reducing human qualities such as creativity and rational thinking to mere neurological firings seems too far a stretch for even the cognitive scientist. While the cause of one's action is not a homunculus, it may be more than just the pathways within the brain. To assume such only looks at the human being on a micro level and ignores not only the individual, but also the species. Implementation intentions and cognitive-behavioral therapy are empirical examples of willing conscious thought to eventually overtake an unconscious, unintended reaction. In this paper, I examine different theories of consciousness that Wegner fails to acknowledge in his own theory, therefore leaving his own theory unclear and desperate of clarification. After giving evidence of the interaction between conscious and unconscious states, I propose that consciousness and control are two different categorizations in how we define processes. This could allow us to retain our sense of free will in spite of current research as we can still be considered the guiding force in our actions, even if done so unconsciously.

I. Introduction

"You seem to be an agent acting of your own free will. The problem, however, is that this point of view cannot be reconciled with what we know about the human brain."[1] The phenomenology of our mental life has been explained away with the emergence of behaviorism in the 1950s, looking only at external influences on behavior, and more recent studies in neuroscience, looking at only the physical correlates of behavior. Their results have been taken to indicate how little our conscious thoughts may truly matter. In this thesis, we will examine only Daniel M. Wegner's claims that conscious will is but an illusion however there are many others that follow similar logic. Like several other cognitive scientists, Wegner conflates consciousness with control. His experiments manipulate the feeling one has when she thinks she has caused an action to happen. Through his experiments, Wegner seems to achieve the ability to both replicate and remove this conscious feeling of "will" in subjects, whether or not they play any causal role in outcomes. Since the conscious feeling of intention is so vulnerable to external influences, Wegner believes conscious will cannot cause action. Instead, he believes all causes are unconscious. He goes even farther to say, "Pointing to will as a force in a person that causes the person's action is the same kind of explanation as saying that God has caused an event."[2]

Wegner builds his claim that we do not willfully control our actions on conscious experience. Since he uses consciousness as the basis for his argument, we should have an understanding of what Wegner means by the term. As Ned Block and others have argued, there are several different notions of consciousness. Wegner himself does not make it clear which notion of consciousness he has in mind in the formulation of his theory. In this thesis, I will

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[1] Harris, S. (2012). Free will. New York: Free Press.
[2] Wegner, D. M. 2002: The Illusion of Conscious Will. Cambridge, MA: MIT Press.

look at the various categorizations of consciousness that could be used to assess Wegner's theory. Due to Wegner's own ambiguity in using the concept, we cannot properly evaluate his own position. The evidence Wegner amasses for his bold argument regarding free will and personal control is then wholly insufficient to support it. From this, I will argue that Wegner not only underestimates the causal power of consciousness but also overlooks the interaction between conscious and unconscious processes. If our intentions can be unconscious, yet still considered under our agency, then we should still be able to claim that we caused our actions and maintained control.

I will make two claims related to free will and our experience of it. The first claim is that consciousness seems to be causally efficacious on some level in generating action. The second claim looks at the way consciousness and control are interchanged within most of the cognitive science literature. I propose we refrain from treating conscious and controlled actions (and their contraries) as co-extensive, i.e. referring to the same action. When describing mental and behavioral processes, I suggest we separate the two conditions. While these two arguments may seem unrelated, they are both relevant to how we should understand Wegner. He relies on marrying the two conditions so that, if we want to feel as free agents, we always have to be fully conscious of what we are doing, which is what he takes to be required for complete control.

One key element of explaining free will is agency. Unfortunately, Wegner and others focus on a very small part of that agency. We consider our actions in both the past and future, along with our present experience. We are conscious beings that act on decisions that may have been decided long before just milliseconds preceding action. If we had to literally think about every singular action, society would not have advanced too far. Instead, we work through causal chains that allow us not only to think as agents, but also to act as ones. What we consider

important to agency are not just immediate decisions or an intention to act, but our conscious planning, rationalization, and distal goal-setting.

According to Wegner's definition of intention, we would have to be fully conscious of not only every action but also all its potential causes, both internal and external. Not only does this seem too high of a standard, but this conclusion does not follow from all notions of consciousness. Wegner appeals to a very basic but vague idea of what it means to have personal control. Our sense of agency disappears unless one is completely aware of one's conscious state. In this paper, I cite different examples from hard sciences and social sciences in order to show that this is a misconception of agency. We need not be conscious of all our actions in order to be full agents, as Wegner suggests. I may wake up in the morning and start my coffee before coming into a full conscious state or realizing what I am doing. I still drink the coffee under the assumption that it was I, not some demon spirit or homunculus, that made it. Wegner's experiments only look at actions that were consciously planned in a short amount of time preceding execution. Personal agency involves more than the few seconds that correlate with conscious decisions. Intentions, deliberation, long-term goals, and habits are all actions that may occur unconsciously but coincide with what we consider to be our true selves. Not only does consciousness seem to have more of an effect than Wegner grants, it also works together with unconscious processes in different ways. Our sense of agency then may not be wholly dependent on consciousness.

Instead of looking at these issues from a dichotomy between unconsciousness and consciousness, I propose we begin an approach that considers the problem of agency in separable terms of control and consciousness. Despite most cognitive scientists' assumptions, the conscious/unconscious distinction does not map onto the control/no control distinction so easily.

I may be conscious of an act, but unable to control it. Oppositely, I may be unconscious of an act yet still retain control of its execution. Most of our processes can be unconscious or conscious, but usually they are combinations of both. An example is our vision for action. When we have to act spontaneously, the dorsal stream generates representations that represent our bodies, the act to be carried out, and the movements involved in carrying it out. We are not conscious of these representations. They are rapid and fleeting, constantly changing. On the other hand, when we contemplate an action that is not spontaneous, we generate representations of the action and action plan in the ventral stream. We are typically conscious of these latter representations. There are also mixed cases. For example, while writing this paper, I am conscious of what I want to say but I am not conscious of the rapid, fleeting, and constantly changing representations representing the quick movements of my fingers as I am typing.

Because the issues are complicated in this way, using automaticity as a criterion for lack of control fails to recognize the flexibility of our mental abilities. For example, it is in no way obvious that I lack control of my typing even if the "typing" action plan is processed in the dorsal stream and these transitory dorsal-stream representations are not conscious. Doing certain things consciously seems to enhance control, but uses up our energy resources.[3] Unconscious processes are often faster, which is something we realize when we learn to type. At first we are conscious of every movement, searching for the right letter on the keyboard. Later, this process becomes automatic and we can type quickly but we have a great deal of control over

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[3] Muraven, M., Tice, D.M., & Baumeister, R.F. (1998). Self-control as limited resource: Regulatory depletion patterns. *Journal of Personality and Social Psychology, 74*, 774-789.; Muraven, M.R., & Baumeister, R.F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin, 126*, 247-259.; Vohs, K.D., Baumeister, R.F., & Ciarocco, N. (2005). Self-regulation and self-presentation: Regulatory resource depletion impairs impression management and effortful self-presentation depletes regulatory resources. *Journal of Personality and Social Psychology, 88*, 632-657.; Gailliot, M.T., Baumeister, R.F., DeWall, C.N., Maner, J.K., Plant, E.A., Tice, D.M., Brewer, L.E., & Schmeichel, B.J. (2007). Self-control relies on glucose as a limited energy source: Willpower is more than a metaphor. *Journal of Personality and Social Psychology, 92*, 325-336.

our movements, so they line up with what will eventually appear on the computer monitor. While consciousness is important and perhaps essential to our development as human beings, our volition need not always depend upon it. The ability to act intentionally without having to consciously attend to the action or the micro-planning of the action does not mean that we lack intentional control.

II. Wegner's Theory of Conscious Will

The claim that free will is an illusion has become popular within the behavioral, cognitive, and neurosciences[4], especially in recent years. Their skeptical ideas surrounding consciousness and intention, however, are nothing new. An explosion of new arguments has come with evidence of brain activity preceding conscious choice. While starting with Benjamin Libet's (1985) experiment[5], I will specifically examine Daniel M. Wegner's views in this section. However, there are many others in the BCN-sciences that have come to the same conclusion based upon similar arguments and experiments. My arguments throughout the rest of the thesis are applicable to many of the other BCN-scienctists' theories.

In the original experiment, Libet asked subjects to perform a task related to conscious intention. Instructed to spontaneously flick their wrists when they had the "urge" to do so, subjects were to look at a clock and then report the moment of time when they felt the urge to move. Using EEG recording, Libet found that subjects reported being conscious of their urges only after brain waves showed movement initiation. The decision to voluntarily flick one's wrist seems to precede awareness of that decision. Libet takes this to be a potential problem for

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[4] These will be referred to as BCN-sciences throughout the rest of the paper.

[5] Others have replicated Libet's findings with different measures such as pressing a button or looking directly at the brain (Soon, et. al 2008; Fried, et. al 2011).

the belief in conscious choice. If the brain is making choices without our knowledge, then our conscious intentions may be inefficacious and perhaps epiphenomenal. However, these kinds of studies are only examining neural mechanisms and self-reports. However, the subject is not stating when he made a choice, but rather when he became aware of the choice. Whether awareness of a mental state is a necessary condition of conscious control will be discussed in the next section.

It is furthermore unclear that the study actually shows that we do not have conscious control over our actions. It may well be that "the brain" made it more likely that we would complete one action rather than another long before we were contemplating the action. This then makes it likely that we act the way the brain seems to show that we will act. But it doesn't show that we could not consciously have decided to complete the opposite action. In the study nothing hinges on which action we make. So we would have no reason to go against the tendency to act one way rather than another.

Wegner takes the evidence to mean that all our actions are unconsciously initiated while conscious decisions are just along for the ride. He believes conscious choice only results in a feeling of control after the action occurs. Intentions are then based not on personal agency but on outcomes. Building on the idea of *ad hoc* intentions, Wegner has spent years researching how and when people feel as though they caused their own actions. Also relying on self-reports, many of Wegner's studies manipulate a subject's sense of agency. By contrast with Libet, Wegner does not usually focus on awareness of urges but rather the feeling of performing an action. He believes that our feeling of control is nothing more than a perception of conscious thoughts and actions being related in a certain way. After finding several methods of either thwarting or generating this feeling, Wegner labels this supposed illusion "apparent mental causation."

Apparent mental causation rests upon three main principles. The priority, exclusivity, and consistency of my thoughts in relation to what I am doing result in whether I believe I intended to act. Wegner argues these principles are the sources from which the experience of will is generated.

The condition of priority holds to the extent that a relevant thought has closely preceded my action. Wegner asserts that there is a limited interval between a thought to do something, and then the behavior, which will allow for a person to feel like he caused his action. For example, if I am thinking "I want to call my friend" as I pick up the phone, I will feel as if I intended the action. The mind wanders, and if I have forgotten my intention, I may wonder why I have acted. For example, if I decide to walk to the refrigerator to get a drink but then start thinking about calling a friend, I may feel confused about why I am grabbing the milk. The action may feel foreign and unwilled.

It's understandable how such an act may feel unintentional to the actor. Still, I am unconvinced that being an absent-minded agent means one's behavior feels unwilled. Wegner's analysis does not show that the agent is without any sense of intention during the act in these cases, only that there is a stronger sense in the cases in which the thought occurs simultaneously with the act. When I go grocery shopping, I may pick up mushrooms without consciously thinking about how I am using them for dinner tonight. My sense of purpose, that is, my general intention to cook with them, may still remain without having to consciously attend to my specific intention such as the exact recipe.

Wegner's "I-Spy" study (1999) tested this principle by priming subjects with certain auditorily presented words naming objects displayed on a computer screen screen. Each subject was paired with a confederate and each pair asked to jointly move a mouse that controlled a

cursor on the screen. Subjects and confederates had headphones on, through which they would hear names of objects on the screen. Subjects were told to stop the cursor every 30 seconds or so and rate their feeling of control. This last measure was a scale between "I allowed the stop to happen" and "I intended to make the stop." Unbeknownst to subjects, the confederates were controlling the cursors in most of the conditions, except for a "free" control condition. Whether the word came 30 seconds, 5 seconds, or 1 second before or 1 second after the movement would significantly affect the report of intentionality. The subjects' amount of control, none, remained the same in these confederate trials. Wegner set out to manipulate the sense of control. He found this variable in subjects sensitive to whether the object that had been clicked upon had just been called, and therefore more likely to be still within conscious thought. Wegner uses this evidence to support his claim that conscious intention is based upon the connection between our thought and action instead of a goal-focused initiation of movement.

Wegner's findings may lack the strength he'd like to claim they have. First, in the condition in which the word came after the movement (controlled by an outside agent), subjects did not feel that they had intentionally stopped on the object. If they retained a sense of intentionality with respect to this action, subjects would be assuming agency that is obviously not their own. While this finding supports the priority principle, it also just falls under common sense. The demonstration of a subject not taking responsibility for another's action does not threaten free will but seems to coincide. Second, the fact that less intentionality was experienced when a longer time interval passed between the naming of the object and the cursor stop could be due to the subject's experienced inability to act upon the primed word. Since the confederate was controlling the movements, a subject may have decided to stop but realized he had to wait. This type of constraint psychologically entails a loss of conscious will, just having to wait to do

X makes one feel less in control of Xing even if one knows one intends to do X. For example, I decide to go to the movies, but I must wait until the showing time to watch the film. I still feel my conscious intention even if I must adhere to external controls. This effect undermines Wegner's conclusions about the experiments. The sense of control may rest on the priority of the thought but the inability to execute the action seems to be the explanation for feeling a lack of control.

Lastly, Wegner found that the feeling of intention during unforced stops (in which subjects were free to move the cursor) resembled that of the 5-second and 1-second conditions during forced stops. Considering the other two issues, this finding only supports that a psychologist can parallel a sense of control with proper timing. However, if Wegner wants to argue that these prior thoughts do not cause actions, then he must account for why experiences of intention were present in the free condition. Since they were not constrained by time, the subjects' minds may have wandered just as much (if not more so) in the free condition and would not have reported such a level of intention. This seems to contradict Wegner's claim that mental processes have no direct expression in causing one's action. One could respond that there is no reason to think such mindwandering occurred, but Wegner seems to be making the same assumption in his analysis of the 30 second condition. The difference here would be that the subject had no reason to wait.

Exclusivity looks at how we assess both internal and external influences on our behavior. This principle states that our experiences of conscious will varies according to whether we think these influences caused our actions. If I believe my thoughts are the only direct guiding force, then I feel a greater sense of will whereas my ascribing a causal role to other factors will dampen that feeling. Most of Wegner's evidence for this principle stems from situations in which agency

is misattributed, either to oneself or to an outsider agent. For example, deciding to clean my room because I think it is cluttered feels caused by my own volition whereas doing so because my partner has been nagging me will feel less like my own choice. Wegner argues our thoughts or mental processes are never truly the cause of our actions. Rather, we are blind to the true causes due to their lack of sufficient salient conscious features.

Many times when people are being forced or manipulated into certain actions, they underestimate outside influences. However, most of us understand that other causes accompany our thoughts in creating behavior. Many times we attempt to excuse our actions with other factors, such as "I've had a bad day" or "It's my mother in me." Wegner might claim this gives our agency away to those influences, such as environment or genetics. This only addresses the phenomenology of external influence upon action. Our sense of agency is not necessarily dependent upon whether we can find outside reasons for actions. The sense of agency in certain situations in which action is almost completely attributed to other influences will be examined later.

The principle of consistency focuses on the compatibility of our thoughts with our actions. Wegner uses this principle to help explain the loss of conscious will. If my thought is inconsistent with my action, he believes that I may not only feel out of control, but I may also attribute my act to an outside agent or force.[6] Although in explicating this principle Wegner explicitly discusses only a condition in which the sense of control is undermined, we can easily extend his idea in a hypothesis about when the sense of control is enhanced: I think I intended to act if I have been consistently thinking about the action, means, or end. At the same time, if I

[6] One of Wegner's favorite examples to support this claim is schizophrenics and attributing the voices they hear to outside agents. However, there is evidence that those suffering from the disease have parts of the brain associated with actual hearing activated. This suggests there are other physical reasons for such an effect.

act in a way that contradicts my conscious thoughts, I do not always claim that another influence is the reason. Instead, we may excuse an inconsistent action as a product of a fickle personality or deficit in moral character. This does not shift agential control. Especially when judging others, internal and external influences are insufficient for whether we think they controlled their actions. There may be cases in which there is no intention consistent with the action at all, but such a lack of intention usually does not entail a lack of control.

In this section, we have looked at Wegner's specific principles of PEC (priority, exclusivity, and consistency) and found issues with each. However, one can argue that conscious will is an illusion even if Wegner fails to recognize all of the influences upon it or the principles that guide it. On Wegner's behalf, I will assume he is correct about PEC affecting our experience of will. Still, these effects do not entail that we must accept that free will is an illusion cast by our experience of consciously willing our actions. After examining the different ways one might use the term "conscious," I will argue that our intentions do play a causal role as they interact with unconscious processes.

III. The Different Kinds of Consciousness and Wegner's Ambiguity

There are several different notions of consciousness. We have consciousness as a phenomenon, a concept, and general term. Block (1995) refers to consciousness as a "mongrel concept." In relation to the issue at hand, we still lack a consensus of how the conscious mental processes work. Therefore, we cannot claim these types of studies by Libet, Wegner, and others really show that consciousness is inefficacious. At this point, we are still trying to solve the mind-body problem and until we have a clear conception of how the brain and body relate to consciousness, we are at an impasse. Since Wegner is making claims based upon consciousness,

he must be clear about what he means in light of these theories. Depending on the view one takes of consciousness, Wegner's claims may not hold.

One dominant conception of consciousness is equal to awareness of experience. Thomas Nagel[7] believes our conscious states contain an intrinsic "what-it's-like" experience. Psychologists, including Libet and Wegner, seem to agree as they use self-reports to support claims on whether an act was conscious.[8] They make the assumption that anything of which you are aware can be reported and vice versa. Theories of higher-order consciousness also seem to hold this idea that what it is for a mental state to be conscious is to be aware of it in a suitable way. In other words, we should be able to have thoughts about our conscious states. In our daily conversations, this may be not only acceptable but quite useful.

When we begin to assess an agent's control over his actions, however, this definition becomes too ambiguous. If I run a red light, but say I was unaware of the fact that it was red to the police officer, I will still get a ticket. The inability to report the red light would be an insufficient reason to withhold moral or legal blame, even if I was telling the truth. Still, we would never go so far as to say I was completely unconscious of the light, as if I were asleep. Instead, we would most likely say I was not paying attention to the light.

Ned Block famously argued that we can have conscious experiences that we do not attend to. To understand how this occurs, he makes a distinction between access consciousness and phenomenal consciousness. The first kind entails a person is access conscious if she has access to the content of her working memory. A person can be conscious in this sense without being phenomenally conscious, that is, without having an inner life, without there being anything it

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[7] Nagel, T. 1974. "What is it like to be a bat?" *Philosophical Review*, 83: 435-456.

[8] Others, such as Crick and Koch (1995) also believe that the prefrontal cortex must be involved in conscious states. This view is contested by those such as Prinz and Block.

is like for her to be in different brain states. On his view, I can run a red light because I wasn't attending to it. But it doesn't follow that I was not conscious of the red light, since it was residing in my access consciousness.

Jesse Prinz's conception of consciousness does not hold the awareness of the light to be sufficient, but requires attention to complete the experience. He might say that I was aware of the light but that my attention had not brought it into my consciousness. His work involves masked priming, that is when stimuli can still have an effect without the subject's awareness. This is thought to show mere activity on one level of brain functioning is not enough for consciousness. In an earlier paper (2000), Prinz asserts, "Awareness only occurs after intermediate-level representations are enhanced by attention."[9] This is to say, conscious awareness requires attention. Visual neglect, a disorder that can occur from brain damage, has also shown that we can interpret and process information without being aware of it. These cases consist of subjects that can not report being conscious of stimuli yet demonstrate they have access to it.[10] They may not have conscious thoughts about one side of their vision and, due to damage in processing areas, may commit more errors on the unconscious side. Still, they are processing the neglected side at some level in order to act and make decisions related to it.

Prinz's theory then applies to the idea that I can be conscious of the red light at some level without thinking, "I am seeing a red light." Whether I am attending to the light will determine its presence in my conscious awareness, but I can still process the light and make a

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[9] Prinz believes we cannot have awareness without some level of attention. One possible counterexample is the "cocktail effect." This phenomenon occurs when someone speaks your name from across the room and you can report hearing it (and sometimes more of the conversation), despite not paying attention beforehand. This seems to indicate that the conversation was somehow in your awareness but you just weren't paying attention. However, his interpretation of this phenomenon is quite the opposite. Prinz thinks we are unconsciously processing the conversation and that, if we hear a salient word, our attention brings it to awareness (2000).

[10] At this point, there is still disagreement as to what is happening in cases of visual neglect in whether they have access, if they are aware but not attending, etc.

decision regarding it. We may not then need to make the conscious decision "I am stopping at a red light" each time. For Wegner, such conscious awareness of decision-making is necessary for agency.

Research conducted by Llinas and Ribary over the past couple decades has demonstrated that consciousness as a phenomenon is most likely not a clear distinction between two states. Instead, patterns of brain waves may determine a number of different levels of consciousness such as dreaming. Berit Brogaard has also shown that consciousness could be gradable. While this is just a neurological explanation, evidence from subliminal perception seems to agree with the hypothesis. There seems to be an area in between fully conscious and completely unconscious as measured by behavior and self-reports. Although different from the previous theories, those such as Prinz and Ned Block seem to be sympathetic to the idea.

"We inhabit an extraordinarily complicated machine." Despite arguing a more mechanistic explanation of how human beings work, Wegner himself gives dualistic reasons in many of his arguments regarding consciousness.[11] Not only is he unclear about exactly what he means by the term except for "experience," he also talks of the "mind" creating this illusion of conscious willing. Still, "Illusory or not, conscious will is the person's guide to his or her own moral responsibility for action." Throughout his explanations of conscious intention, he goes back and forth between the brain and this separate entity that has been tricking me into thinking I cause my own actions. Sometimes my mind is a self-explanation mechanism, other times it is a conscious thing that does not know itself. Wegner seems to think that my sense of self rests entirely on this conscious mind and whatever is outside my stream of consciousness will be cast off as something foreign to me.

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[11] Daniel Dennett agrees with Wegner but has a similiar issue with his arguments as they rely on speaking in "Cartesian theatre" terms (Precis, 2004).

However, we know much more about ourselves than just what we are experiencing in the present moment. An explanation of consciousness needs to account for things such as stored beliefs and desires we can bring to mind if prompted. For example, I may not be presently thinking "I believe my partner loves me" but I can access the belief if needed. We can only be conscious of so much at once. Conscious processing uses many of our cognitive resources, of which we have a finite number. As noted earlier, Ned Block furthers our distinction of conscious states with his differentiation between phenomenal consciousness, one's "experience", and access consciousness, information you can access from working memory and which does not require any form of awareness associated with the access. The former kind of consciousness is the only kind Wegner seems to measure despite his theory referencing the latter.

Self-consciousness may be a better description of what Wegner is attempting to measure. He, and other BCN researchers, ask subjects to reflect on thoughts, feelings, and their awareness of these in relation to their actions. These types of experiments can give important insight to what it means to be conscious of one's intentions. However, these reports focus on the first-person perspective. We also experience ourselves outside of just that type of awareness. It is not just "I," who is thinking in first person, but "me," the agent who is acting seen from a third-person perspective. We piece together our thoughts and actions to track our agency, just as Wegner asserts. He seems to not recognize that we also realize our conscious thoughts are limited, we can be absent-minded, and people are imperfect creatures. If we had to think *about* every thought or action we experienced, then our cognitive resources would most likely suffer. Our sense of self does not rest exclusively on occurrent conscious thoughts and experiences. Wegner arrives at his conclusion that we don't control our actions due to only identifying us with this too narrow part of ourselves.

As we can see, there exists a diverse range of theories of consciousness with significant disagreements separating them. Some theories allow for the causes of action to fall under consciousness whereas Wegner might label them unconscious. Wegner uses the term "conscious" to create his theory about control but only looks at the phenomenal experience of a conscious thought. As such, Wegner's own definition of consciousness does not seem to align with any of these theories. The cause of my action may be outside of my present awareness or only inside my access consciousness, i.e. working memory. Wegner neither defines his usage nor places it in the context of these opposing viewpoints. His lack of sensitivity to the relevant literature gives us reason to question his quick jump to certain conclusions. It might be that, even if our intentions do not cause behavior in Wegner's sense of 'conscious', they can cause behavior in one of these other senses. As we have seen, there may also be ways of recognizing our agency that are not exclusively phenomenal. Wegner's narrow sense of consciousness is therefore irrelevant to the causal sense we want for free will.

IV. Intention or Agency?

A. The sense of agency

Another issue pertaining to Wegner's theory is that he and his colleagues shift the way they present their arguments. At times, we are only "sensing" our agency while at others, we are either creating beliefs or making judgments.[12] This next part of the paper will look at our sense of agency, how Wegner defines it, and why his categorization fails to represent it properly. In general, the notion of intention usually requires that the agent is conscious of his intention. Still, Bertram F. Malle, who has studied how people assess intentionality, considers awareness as only

[12] Carruthers,G. (2010) "A problem for Wegner and colleagues' model of the sense of agency". Phenomenological Cognitive Science. 9:341–357

one component of the concept.[13] As we discovered in the last section, consciousness may entail very different properties from awareness or self-knowledge[14]. It is also hard, if not impossible, to know if someone was conscious except through self-report. Considering something to be an agent usually just means that it has the ability to act. An action is merely the process of doing, yet as humans, we like to add causal intentions and purposeful ends to the concept of agency. We may not always phenomenally experience our intentions or purposes, but we can usually access them. I may not feel as those I am the cause of my own action while stuck at work, but I can recall my reasons for acting and retain my sense of agency.

Let's say I told you, 15 minutes ago, that I want to take a shower. When I got out of the shower, I report that I did not "feel" as those I intended the act. According to Wegner, I have lost my sense of agency. Wegner believes we experience a sense of agency only when we infer our conscious thoughts have caused an action. The sense of agency fully depends on a presence of conscious thoughts and a theory of mind about those thoughts. As we will see in this section, such an understanding of agency may be too narrow. Wegner's definition of causal agency entails goal-seeking behavior with the ability to consciously envision actions. Yet the majority of his studies do not look at typical goals, desires, or plans that we carry out on a regular basis, short-term or long-term. Wegner attempts to use a shallow, sensitive feeling of agency as his basis for the illusory free will argument. His bold claims ignore evidence of agency without such emotions.

Wegner calls our feeling of conscious will an "authorship emotion." This experiential sense of agency is apparently an illusion, but Wegner believes it necessary for our feeling of

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[13] Malle, B. F. 2001. "Folk Explanations of Intentional Action." In B. F. Malle, L. J. Moses and D. A. Baldwin (eds.), *Intentions and intentionality: Foundations of Social Cognition*. Cambridge, MA: MIT Press. 265–286.

[14] Malle keeps desires, beliefs, and intentions separate from awareness when looking at how we understand action.

control. Wegner give examples of the creative artist or star athlete to demonstrate a loss of feeling agency. When "inspired" or "in the zone," these cases usually involve reporting a lack of conscious intention. Wegner claims they lose a feeling of authorship when "in the moment." Yet few of these individuals would say that the works or actions are not due to their own agency, even in these phenomenally-lacking agential moments. The key to his claim is that he is only referring to a short period of time and their phenomenal consciousness. If asked whether they meant to paint that picture or score the touchdown, the cases would most likely report conscious intention in a distal or general sense. While he is not arguing a total loss of agency, Wegner seems to think it hinges on the phenomenal experience of the present moment.

Wegner wants to argue that our conscious "will," whether an experience or a force, lacks the ability to affect our actions but then he must account for why our conscious experiences and emotions seem to influence our behavior. Certain experiments have demonstrated the importance of the emotion of agency, especially in moral behavior. An agential shift seems to occur when we think we must obey authority or trust others to intervene.[15] However, despite these shifts in merely feeling control, we may still find ourselves and others responsible even for these sort of actions. When taking blame or credit for one's actions, a feeling of intention may or may not be present. The sense that one is still the agent usually remains.

Glenn Carruthers (2010) makes a similar objection to Wegner's portrayal of agency. There is a key difference between the belief that one's conscious thoughts cause an action and the sense one is the agent of the action. Even when an agent does not believe her conscious thought to be the cause of an action, she may still feel a sense of agency. Children who are still developing a theory of mind are key examples of such a phenomenon. They have the ability to

[15] The Milgram studies are most commonly cited for blind obedience. The bystander effect, in which people are less likely to act if others are present, also gives support for an agential shift.

assess their own agency and that of others before they develop the ability to report on their own conscious states. We can possibly take this to support Wegner's view that consciousness is unnecessary for action control. Another way to view these cases is just that awareness of conscious thoughts are separate from awareness of agency. Considering he uses conscious thoughts as a condition for such an awareness, Wegner may not be immune to the objection that his theory overlooks such a separation.

B. Attributing agency

Most of Wegner's experiments demonstrate subjects reporting that they intended or caused an action when, in fact, Wegner and his confederates had been in control. In studies of facilitated communication, people claim that Wegner argues that we also easily attribute actions to others that are not their own. He takes such findings as evidence that our sense of "authorship" is easily malleable and transferable based upon perception of outside influences. Wegner is too hasty in assuming that merely because the sense of agency can be experimentally manipulated and induced illusorily, that this sense must always be an illusion. Wegner operationalizes "being an agent" as "feeling as though my conscious thought caused my action." Although he may be correct when he states that causation is a relation between events, not a quality of an object, he fails to account for the effects. Certain laws of physics or biology may be necessary for an explanation of agency instead of just looking at purely psychological phenomenons. Talking about our agency in these physical terms does not entail that we so-called agents in fact have no more self-control than that of a bowling balls, though. Nor does thinking free will exists within human beings parallel attributing causation to God (Wegner 2004). Our agency seems to have a physical explanation yet, because it also has a psychological one, we shouldn't assume the experience of agency as merely an illusion. It seems to be that Wegner thinks a biological and

mechanistic explanation competes with and obviates a folk psychological explanation of agency, when perhaps the two are perfectly compatible.

There is another way we can view Wegner's data. Falsely attributing agency, whether to ourselves or to others, may just be an evolutionary or ethical error. Studies have shown that we attribute the same agency to some moving objects, such as squares or triangles. Many people view their pets as not only agents, but ones with distinct personalities and emotions. If we can imagine living thousands of years ago, or even now in certain areas of the world, then we can see why attributing agency might be advantageous. For example, if a hunter saw something in the woods, he would be safer to assume that it could be a creature with a desire to eat him. Even in modern society, attributing agency is useful to us in determining how to hold others morally responsible. If one is forced to act wrongly, we may be less likely to punish him as we feel his agency is undermined. We can be wrong about attributing agency, but this does not necessitate that there is no agency to be had. Wegner seems to recognize we have *some* agency since he uses the term "voluntary" to describe certain actions. He may even be right about the conditions under which we misattribute agency. However, he makes the bold leap to suggest that the mere fact we sometimes misattribute agency entails that our sense of agency is illusionary. Wegner assumes that we always believe in the authenticity of our feelings of agency and automatically infer we cause related actions. One of his famous examples posits that if you look at a tree branch and it moves, but the wind doesn't seem to be involved, then you will feel as though you caused the tree to move. Most of us would hopefully realize that the tree's action, if even it elicits a sense of agency, is not under our control. Similarly, we might have superstitious habits while recognizing that the feeling of causation is not grounded in reality. Perhaps Wegner is making an epistemic claim in that if you did not know such causation is impossible, then you might think

you caused the tree to move. Still, this doesn't mean we are not causal agents. Instead, we may just lack access to some "salient features" of the other causes.

Wegner calls this inference of causation, "virtual agency." We create this illusion of agency when we have the time and give attention to connecting our conscious thoughts and actions. This phenomenon is supposedly what gives us the false belief that our conscious processes and actions are controlled by us. He believes our sense of free will stems only from the connection of conscious thoughts and observable actions. Only when we have the time and attention to infer a link between the two, are we able to attribute our conscious intention as the cause of our actions. Wegner has strong evidence that we tend to infer our intentions based upon these conditions of time and attention. However, we can also be aware of an intention without acting or as we are acting. Wegner's explanation fails to account for such cases.

In this section, I have argued that our sense of agency is not fully dependent on consciousness. We experience and attribute agency over actions that we may not be fully conscious of. Sometimes, as Wegner notices, this can entail that we overattribute agency to undue sources. He would not disagree that this can be potentially beneficial and useful as a society. However, Wegner thinks our sense of agency is, not just sometimes but always, inaccurate due to the ineffectuality of our conscious intentions. As we will see in the next section, conscious intentions may have an effect on behavior. Whatever the causal power of our mental states, the inaccuracy of how we represent our agency may not be directly related to consciousness. Instead, our sense of agency may be related to what we have access to. Generally, we are not consciously attending to our intention, purpose, or all our reasons for acting. Still, I can feel as the acting agent without being presently aware of why I am acting. Wegner's account only focuses on our conscious awareness of thought preceding action. Next, we will look at how

such consciousness may not only enhance our sense of control but also our ability to execute control.

V. Conscious and Unconscious Intentions

A. Consciousness' Causal Capacities

At times, Wegner seems contradictory as he claims we perform "voluntary actions" without a sense of will. Yet, if these are voluntary actions, then the action should still be under my personal control despite the lack of consciousness. Wegner sticks by David Hume's definition of willing to be a conscious feeling that must be experienced (2004). He also recognizes that action and the experience of control need not always co-exist, as seen in alien hand syndrome and other brain-injury disorders. Those suffering from alien hand syndrome, a neurological disorder, feel as though the body part has a mind of its own and therefore, its actions feels unwilled by the subject. Wegner's suggestion is that these processes (action execution and feeling of intention) may take place in different areas of the brain. This seems to be true and also indicates there may be separate functions for causing an action and experiencing oneself as the cause of an action. However, it is unclear why this necessitates that the causal efficacy of our conscious intentions is nothing but an illusion. His reasoning seems to rest on a temporal difference between the automaticity of action and the feeling of intention, which takes time to appear in consciousness.

Wegner's theory of AMC (apparent mental causation) depends upon the idea that self-consciousness does not understand how unconscious processes work. He gives the example of a multiplication table and how the answer just seems to "pop" inside of one's head. That the answer comes to consciousness "automatically" does not entail that I am not responsible for

producing the answer. If you asked me to think about why I was able to react so quickly, I could respond that I consciously learned my multiplication tables at a young age and, through constant practice, no longer have to consciously work out the problem. However, I still think I was in control of answering you correctly. If I were stressed or sleep-deprived, I may not have given you the correct answer to the problem.

It may seem that these unconscious processes are running the show while our conscious states are along for ride. As Wegner suggests, perhaps the experience of will is a separate function from that of action initiation. However, why must the latter be completely inaccessible to us? If we consider the gradable consciousness theory, then we may be able to access and control these processes on some level. While we may not have the ability to be completely conscious of everything we do, and why, we may still have control. By becoming aware, or directing our attention, some of these more seemingly unconscious processes can become available to our consciousness. Wegner does not need to commit to the claim no mental state ever becomes conscious but by his standards, this transfer into consciousness would allow these processes to be considered controlled. The supposed dichotomy between the two types of processes, which Wegner uses to build his theory (2005), may actually be a continuum. This causes a problem for Wegner. Since he argues we are fooled into thinking our conscious intentions cause our actions, when really it's our unconscious processes, then he needs the two to be distinctly different and without overlapping causal properties and effects.

One's conscious awareness is also different than one's conscious decision-making. Referring to the Libet study, Eddy Nahmias (2010) hypothesizes that these neural correlates are signs of preparation to move. These waves are then represented as urges. As he points out, this does not mean consciousness cannot be causal but that awareness of our decisions

may not always be necessary for all stages of action. If we had to consciously think about every little movement we make, our cognitive resources would be overloaded. Many of the theories of consciousness examined earlier support the claim that we perceive, process, and act unconsciously. The ability to control one's actions unconsciously allows us to multi-task and act on several intentions, not just the ones in our current awareness.

At the same time, most of our actions involve complicated processes. Deliberation, planning, and deciding are usually done long before the readiness potential of an action appears. Since Wegner agrees that we are goal-seeking creatures, he should be willing to accept that these aims should affect our actions. However, he believes that our goals are based upon our wishes or desires, over which we have no control. Unlike his idea of wishes though, we are able to assess what goals have more value in being achieved. At times, we still act in ways that keep us from aligning with those values such as when we act selfishly or impulsively.

One of Wegner's main claims is that we have conscious control over very little, if anything at all. He mistakenly assumes that unconscious processes cannot be affected by attending consciously to them. We can find several examples of how consciousness may have more causal power than he wants to attribute to it. First, there is empirical evidence for the effect of consciousness playing a major role in automatic functions and behavior. Biofeedback is a type of therapy that allows patients to watch their automatic bodily processes, such as heart rate, and teaches them relaxation techniques. Becoming mentally aware of these mechanisms and then methods, these patients are able to cause changes in physical functioning. Wegner asserts we cannot "see" our conscious intention causing anything but only make inferences after the fact of acting. In biofeedback, patients are able to see the effects of conscious intention. Though consciously attending to physical processes and intending to relax, patients are able to watch

their effects on usually inaccessible, automatically functioning parts of the body.[16] Biofeedback seems to suggest, in contrast to Wegner's claims, that conscious attention can modulate a surprising range of psychological and physiological processes.

The results from biofeedback show that we might have some degree of conscious insight to our unconscious causal mechanisms, as we are able to create a sort of map for them to follow. Similar findings have been shown with cognitive-behavioral therapy as patients track their emotions, reactions, and reasons for action. Wegner would agree that consciousness has the ability to reflect and piece together unconscious actions into a coherent picture. He might reply that cases such as biofeedback only enhance our illusion of control. Yet his theory does not account for how and why this then can have an effect on future behavior and thoughts. Instead, he separates the physical and mental in such a drastic way that it seems impossible that we could tap into any communication between the two. I may not be able to read my neural pathways but that is not sufficient to conclude I have absolutely no access to my mental mechanisms.

A possible response from Wegner is that such evidence looks at the empirical will, whereas he is interested in phenomenal will. The latter is only an experience or estimate of will while the former is the scientific reality of the relationship between agency and action. Empirical will refers to whatever is in fact the precursor and cause of one's action, something which we may or may not have access to. The distinction between the two isn't quite clear though; empirical will is only measured by conscious self-report in the same way we measure

[16] The official description from the Association for Applied Psychophysiology and Biofeedback, Inc. is as follows: "Biofeedback is a process that enables an individual to learn how to change physiological activity for the purposes of improving health and performance. Precise instruments measure physiological activity such as brainwaves, heart function, breathing, muscle activity, and skin temperature. These instruments rapidly and accurately "feed back" information to the user. The presentation of this information — often in conjunction with changes in thinking, emotions, and behavior — supports desired physiological changes. Over time, these changes can endure without continued use of an instrument." This technique still has its critics but is widely accepted and implemented in most psychology programs.

phenomenal will. In cases of automatism, there is supposedly no phenomenal will. Still, we don't want to deny complete agency (as noted earlier), so we'd attribute the empirical will even in the absence of self-report.

"Implementation intentions" might actually co-exist quite nicely with Wegner's idea that intentions are nothing more than mental previews of action. These are if-then statements that are first decided consciously, and are then performed automatically and unconsciously. This means that people do not have to be aware of or bring the intention to mind when performing the action. This technique have been shown to be more effective in self-regulating behavior than just vague, abstract goals.[17] For example, drivers that had been given statements such as "When I come to a curve, I will slow down" were safer than those who were primed to be "good drivers." With specific, conscious plans resulting in better behavior, the intentional preview claim seems strong. However, when looking at the relationship between the conscious avowal and the unconscious execution, Wegner's explanation falls short. If our consciousness played no causal role, and intentions must be conscious, then my automatic reactions would seem to be unaffected by any conscious decisions.

In this section, I gave evidence for conscious intentions having effects on unconscious execution. Conscious phenomena does seem to influence and alter behavior. Examples such as implementation intentions demonstrate an interesting dynamic in how we make decisions and plans. Most of our goals are general, distal intentions that are set for the future. Wegner seems to only measure specific, proximal intentions. For instance, in the earlier I-Spy study, the amount of time a subject had to form an intention (or just conscious thought) was very short. Most of our

[17] Gollwitzer, P.M. (1999). "Implementation intentions". American Psychologist, 54, 493 – 503.,Gollwitzer PM, Sheeran P. 2006. Implementation intentions and goal achievement: a meta-analysis of effects and processes. Adv. Exp. Soc. Psychol. 38: 69-119

meaningful actions occur due to intentions formed long before the end results. When I am trying to decide something such as what career path I will take or whether I should date someone, I usually go through a conscious temporal process of rational reasoning. In some cases, I may feel as though I am still undecided until the exact moment I am forced to choose. Wegner and other BCN-scientists would claim my brain had already made the choice without my conscious knowledge. Another way of looking at such spontaneity is a lack in self-knowledge or awareness that would coincide with other theories of consciousness mentioned earlier. However, most of the time, I come to a decision based on conscious deliberation and plan or imagine ways to achieve it.

B. Unconscious Intentions

In this section, I make the claim that we, along with Wegner, are too narrow in how we view intention. While conscious intentions seem to carry causal power, many of our actions are executed unconsciously. However, we seem to carry non-conscious intentions as well. Usually when we say a intention is conscious, we mean it is in our awareness. Even if we take Block's access consciousness to categorize intentions, they must reside in working memory. As I mentioned earlier, we are multi-tasking creatures. Since working memory can only hold seven (give or take two) items, our multiple intentions must be stored in other places that may not be phenomenally available. Unlike Wegner, I come to the conclusion that these unconscious intentions might still be controlled and allow for free will.

Habits and long-term goals are both examples of how I may seemingly act unconsciously, but still with intention. These types of behaviors are included in our sense of agency, despite their unconscious execution. Most of my actions occur without my direct,

conscious attention but I still take responsibility for them. Wegner uses the term "attention deployment" as support for his AMC theory. He believes attention plays a role only in that it gives us more time to think we are causing an action. His examples of artists and athletes experiencing a lack of conscious will are sensible, but mistaken. These people still take credit for their actions and claim agency even if inspiration or talent are also causes.

Our spontaneous or immediate actions are usually planned in the dorsal stream. Wegner's subjects are reporting only on this type of action. However, this planning process is most likely triggered by higher cognitive processes and goals. Depending on whether we have immediate access to these higher goals, our actions might easily feel "foreign and unwilled." Still, even when the unconscious planning seems fleeting, it is still relevantly linked to executive function and control.

Similar to biofeedback, meditation demonstrates the intricacy of consciousness and control. Not only do self-reports indicate positive changes for subjects in their daily lives, but the brain actually begins to reorganize itself with these practices. Areas associated with self-regulation and behavior control undergo structural changes while the brain's connections improve efficiency. This supports my earlier claims regarding the causal capacities of consciousness as meditation requires intention and attention. However, the type of consciousness ones uses when meditating is quite different from the singular kind that Wegner examines. The answer lies somewhere in between a fully conscious state and an unconscious one. A person's brain waves when meditating resembles that of relaxed attention as opposed to those of just relaxation, which look like one is about to sleep. Since being *too* conscious of one's actions can deplete energy resources, meditation seems to give the brain a break while retaining control. The meditator is able to affect automatic processes like heart rate, blood pressure, and oxygen thereby

retaining control without full consciousness. Yet such a practice is one to which a person must consciously commit by ignoring external influences. This evidence could also be a problem for higher-order theorists, as a meditative state is a different kind of awareness that is not necessarily conscious or unconscious.

Such evidence points to a strong interaction between conscious and unconscious states. In the last section, we have shown how personal control is affected by such an interaction. The gradable consciousness theory may be useful here as it allows for different levels of conscious control, as seen in the cases of biofeedback and meditation. Wegner would not disagree with the idea that the locus of control is unconscious. However, Wegner only examines consciousness in its strongest state. Such a strong condition for intentional action may be asking too much. He seems to think that the conscious and unconscious are completely discontinuous realms that never interact. Not only have I shown that they indeed interact, but that the divide between the realms is quite blurry. Control over one's actions does not seem to require a fully conscious intention at the time of the act. Instead, control may be executed unconsciously without sacrificing conscious agency. In lieu of such an oversight, Wegner's theory may be inaccurate in its account of both consciousness and control.

VI. Conclusion

This paper has touched on one of the hot topics not only in the academic spotlight, but also in mainstream media. Despite common intuitions, popular theories have emerged that contradict our experience of controlling actions. One of the frontrunners of this movement, Wegner has spent a career attempting to prove these intuitions wrong. Although his experiments give insight to how our minds interact with our environment, Wegner's conclusions seem to go beyond the data. After looking at his apparent mental causation theory, we set that aside to look at the basis

of his speculative claims. While the theory pertains to how we feel conscious intention, the idea that we lack personal control must be taken seriously.

The link between our thoughts and actions are complicated. Wegner may be correct in asserting that our actions occur from a "culmination of an intricate set of physical and mental processes, including psychological mechanisms." We may not even have direct access to each of these influences. However, we cannot assume this means we lack control over our actions. We can become aware of and sometimes change these physical processes, as seen by biofeedback and meditation. We can also influence our automatic reactions to situations, whether through methods such as implementation intentions or cognitive-behavioral therapy. I may not be able to control all influences, internal or external, but I can learn how to operate within my own physical system and socially constructed ones.

Prinz is correct, in that "An account of consciousness should explain why some states feel like something and others don't." In Wegner's case, he needs to distinguish an action's feeling some way from the intention that led to the action's feeling some way. As it stands, my intentions must be conscious and felt after an action has occurred. First, intentions seem to have phenomenal qualities before executing the action. Second, actions that stem from unconscious intentions can feel like something. I may feel absent-minded or flaky when I am not paying attention; that does not mean I feel out of control, as Wegner would posit. To assume that my conscious states must always have a certain first-person qualia makes the same *a priori* mistakes that Prinz argues against. Self-knowledge also plays a major role in what something feels like, as we often introspect and look at ourselves in third-person perspectives. Without clarification of what Wegner means by "conscious," we should not accept his claims so readily. Instead of looking at just mere phenomenal consciousness, as Wegner does, applying gradable

consciousness may be more relevant to the question of free will.

Wegner states he still believes in personal freedom but his arguments suggest consciousness is not a part of that. I agree with Wegner in that free will does not just come from nowhere and cannot be purely random. Acknowledging the past and one's desires is part of freedom and agency. Wegner's claims strip us of both of these essentially human properties by taking away any causal power. Instead of looking at causation as all-or-nothing, there may be degrees or chains in which the physical and mental play a part. We may have limited free will, which seems more plausible than the unlimited type Wegner seems to think we all believe we have. Accepting this thesis allows us to acknowledge that we have certain abilities and capacities. We may not always have the opportunity to exercise them, which would entail a loss of control. At the same time, we may not always be paying conscious attention to them when we do exercise them.

If we are arguing against the basic intuition of conscious intention causing action, as Wegner does, then perhaps we should reexamine how we view intention. We have seen that our conscious and unconscious states have an interesting but, at this point, indefinable relationship. Instead of resting our views of personal control on consciousness, which has yet to be fully explained, we might do better to look at consciousness as a product of agency as opposed to being an essential condition of it. The BCN-scientists have reduced agency to brainwaves and action potentials but these only show the person on a microlevel. Our ideas regarding humanity should also look at how the individual views himself as an agent on a personal and societal level. Wegner attempts to do so, but seems to revert back to the reductionist viewpoint as he ignores the bigger picture.

In this paper, I have examined Wegner's theory of apparent mental causation. While there may be issues with his supporting principles, I assume that they may be correct in assessing how we might feel conscious intention. Looking at different theories of consciousness, though, we soon see that Wegner is too hasty in his diagnosis of the effects of conscious intention. First, he confuses agency with conscious intentions. We can see that unconscious goals play a role in our actions *and* our agency. Secondly, his claim that consciousness seems to be epiphenomenal looks to be false based on the interaction between conscious and unconscious intentions. In light of such an interaction, I argue that it would be wise to separate consciousness and control in our study of intentional action. By merging the two conditions together, we miss the subtleties of both which could be detrimental to not only the personal agent, but also society as a whole.

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