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Experience and Empiricism

in Testing the Free Will

*What Phenomenology Offers a Discussion of Embodied Religion*

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abstract

This paper offers a critique of empirical tests of the free will, aiming at a presupposition underpinning the experiments’ methodology. The presupposition is that the artificial reporting of machines is prima facie directly congruent with the first-person perspectival report of the participant. A critique of the method reveals the problematic nature of this methodological set-up. The phenomenological critique, however, also carries implications for a theoretical framework dealing with ‘embodied’ religion; these implications will be discussed via reference to the article by Marcel Sarot.

keywords

free will, empiricism, phenomenology, methodology, intention,

embodied religion

1. introduction

Empirical experiments testing the free will supposedly prove that the human agent is controlled by an unconscious urge to act. Many philosophical critiques criticize *only* this result, while, thereby, implicitly accepting the methodology itself as unproblematic. I propose, however, that the methodology itself is *seriously problematic* from the get-go. Therefore, in this paper I pursue a differently aimed critique, one that namely examines exclusively the methodological set-up of the experiments. It is my hope to show that a *prima facie* presupposition underpins the methodology, which engenders a 1:1 comparison between artificial elements and phenomenological elements. This presupposition posits congruency where, instead, one finds evidence of fundamental, categorical differences, and is, *ipso facto*, unfounded. Granting the presupposition the day leads inexorably to a comparison of apples and oranges, on the one hand, and pictures or videos or long exposure shots of apples and oranges, on the other hand. Moreover, and of pronounced importance in the context of *embodied* religion, these considerations resonate with a modern theoretical account of religious experience at the crossroads of empirical science.

The paper divides into four parts. My attempt to describe the basic methodological structure of the experiments constitutes the first part. In the second part, I unpack the basic presupposition underlying this methodological structure. Then, the third part is the space in which I argue (via phenomenological considerations) against this *prima facie* presupposition of the congruency supporting the experiments’ results. Finally, in the fourth part I move the discussion in the direction of philosophy of religion, by focusing on the philosophical-theological position of Marcel Sarot.

2. a breakdown of the experiments’ methodological structure

I want to describe the basic structure of the free will experiments conducted by Benjamin Libet[[1]](#footnote-1) and by John Dylan-Haynes.[[2]](#footnote-2) These experiments used different equipment but utilized the same basic method to arrive at the same general result, namely that the brain ‘decides’ unconsciously to act before the person does. This result arose out of a comparison of two reports from independent operations. First, a programmed device measured and recorded the participant’s relevant brain activity (this is the ‘artificial’ operation). Second, the participant made a movement and reported *when* she was consciously aware of her intention to act (this is the voluntary and, thus, ‘intentional’ operation). The artificially generated report showed activity in the brain preceding the participant’s conscious intention to move spontaneously. The preceding electrical activity in the brain has been dubbed ‘readiness potential.’[[3]](#footnote-3)

Let us examine these operations. The artificial operation of reporting measures brain activity precisely by capturing linear, static moments. In the experiments by Libet, a reading of electrical impulses in the brain occurred via electroencephalography (EEG) readings, which showed brain activity about 500 milliseconds before the participant’s reported time of conscious-urge. In Dylan-Haynes’ experiments, the investigators used functional magnetic resonance imaging (or, fMRI) to track brain activity, by noting regions of the brain needing more oxygenated blood during the participant’s completion of the assigned task. The fMRI readings showed brain activity preceding the time of the conscious urge to act by 7–10 seconds and could be used to predict roughly which hand the participant would move.[[4]](#footnote-4) Both artificial techniques record the when and the where of activity occurring in the brain by precise measurements of time in a linear (or objective) series of static moments.

The second report (in both experiments) is a self-reported, intentional moment of the participant. The participant should make an intentional movement fulfilling a conscious urge, and then report the time that she was conscious of this ‘urge.’ In the Libet experiment, the participants reported the time by taking note of the position of a rotating, blinking light. In the Dylan-Haynes experiments, they were asked to remember a projected letter of the alphabet flashing on a screen before their faces. The action and the concomitant operation of reporting is completely embedded in the first-person perspective; the temporal framework is necessarily one of conscious time – the subject must be able to say, that in *her* present, herconscious urge happened *before* her intentional act.

A *prima facie* presupposition, however, underpins the comparison of these operations, which is problematic. To understand this presupposition upon which the comparison is grounded, let us examine this methodological structure with a philosophical gaze.

3. the problematic presupposition

Neuroscience of this kind attends the person as both an object and as a subject. As such it assumes necessarily that one’s neurological activity correlates in some ordered way to one’s thinking. In many instances, this leads to quite pragmatically satisfactory ends. Discovering the source of somatic pain, for example, allows for its alleviation. Noting a lesion in the brain can illuminate the source of mental afflictions. The correlation between the hammer, which I drop on my toe, and the resulting pain is not contingent, rather fills in a conditional proposition. *If* hammer falls on big toe, *then* pain*!* Such pragmatism, however, can be stretched overzealously to *explaining* away the mental completely. ‘Overzealously,’ because clear-cut cases of somatic pain cannot justify similar correlative attempts regarding intention. The problematic presupposition of the free will experiments grows out of this basic principle of correlation that bolsters empirical experiments in the natural sciences.

Without intending to simplify the phenomenal experience of ‘clear-cut cases’ of pain, the case of intentional action does seem to present two good reasons for requiring different treatment when attempting to squeeze it into correlative relations. First, we feelintention to be the movement from a *mental* event to *physical* event, which contrasts the causal correlation in simple cases of pain. Second, a supposition of an empirical correlation ignores that this mental event arises with ends in mind, instead of pure effects. Ends belong to a contextual web involving one’s personal history, one’s cultural environment, along with one’s interpersonal network – thus, demanding hermeneutic considerations along with empirical descriptions. Intention, therefore, requires attentive unpacking since it is an essential building block of the experiments, i. e., *move when you feel the urge to do so*.

A discussion of intention in the context of the experiments is also of special prevalence because a common critique against the results of the free will experiments claims that the experiments fail to measure *real* intention. Jürgen Habermas, for example, refers to the *free* will as the ‘reflected’ or ‘deliberated will’,[[5]](#footnote-5) from which follows that the experiments deal with an insufficient sort of intention since the participant should decide to move spontaneously. Such an insightful argument, however, treats the spontaneous actions as a sort of inferior subspecies under the genus ‘Intentional Action,’ as though this concept were clear. I think that these critiques, however, are wrong in not taking the spontaneous actions as serious elements within the sphere of intentional actions, for they beg the question: How can we call deliberated actions intentional, if the physical (spontaneous) actions, which they comprise and which are voluntary, belong to a separate intentional domain? Or put differently: where does ‘real’ intention begin and end? These questions I think block the progress of the above-mentioned critiques and give reason to hesitate before accepting immediately that the experiments fail to measure ‘real’ intention, whatever that is.

These questions resonate with G.E.M. Anscombe’s thinking in *Intention*.[[6]](#footnote-6) In her example that runs from §23 through §26, an example of a man pumping well water is offered. Along with the act of pumping – taken as a purely physical motion willed by the pumper – the man may intend to pump to a specific rhythm, intend to resupply water to a house of politicos (with a malevolent agenda), and (simultaneously) intend to do these actions with the knowledge that the water has been poisoned. The series of intentions involved may be ‘swallowed up’ by that intention ‘*with which*’ the man performs the series of connected acts.[[7]](#footnote-7) In other words, the intention to move his arm, the intention of drawing water from the well, and the intention to resupply the house with water, may be subsumed under the lead intention of poisoning those men. Intention becomes manifold in these considerations; it remains anything but diaphanous and basic. The intention to act is not *found* in any one place or another, rather spread throughout the composite actions as a whole. A spontaneous, intended movement makes up a salient moment within the arc of intentional action. It follows that we should take free, spontaneous action seriously for the sake of our deliberative actions, which builds upon its substrate.[[8]](#footnote-8)

Let us draw these considerations over into the free will experiments. What do the investigators understand as intentional action? Three basic suppositions form this understanding that leads to the presupposition to be criticized. To begin, the investigators study intention to act in contrast to unintentional action. The spontaneous action of the participant moving her hand should not be a random spasm or carried out under hypnosis, i. e., the experimenters set out to measure action free from all external determinants. The act should be determined by an *internal* intention to do so. Intentional action, however, cannot remain a purely internal factor and at the same time be understandable. An intentional action as such is in some way an amalgam of both internal factors and external factors centered about the person.

Thus, the intention to *act* must secondly extend beyond the internal intention to move one’s hand; an intentional action is nothing if not enacted. Beyond the internal intention to move, that which matters is the amalgamation between an internal content and the external realization of this content. This amalgamation might be posited as the keystone to the entire experiments’ validity. After all, if no amalgamation existed between an intention and an actual action, then the second report originating from the first-person perspective would become absolutely superfluous. One could say, in other words, ‘These actions are mysterious. Let us look in the brain to see where they come from,’ without needing to ask the participant at all. On the contrary, the experiment seeks to explore the connection between the activity of the brain and the everyday thoughts in which we posit intentions.

Finally, the correlation of the temporal awareness of the intention to act and the action itself cannot be supposed as separate or isolatable. This proposition also finds resonance in the thinking of Anscombe. Whatever intention is, it must remain a member of a ‘class of things known without observation.’[[9]](#footnote-9) Intention must be something *directly* knowable. If an intention to act were only realizable through observation, then two absurd consequences would follow. First, if the movement of one’s hand does not correlate to a specific intention to do so, then one must search for a separate cause, e. g., a hypnotist or mind-controlling genius à la Dr. Mabuse. ‘I *moved* my hand,’ requires direct relation; *in*timate relation, one might say, with the correlating action. Without something extra to fill this descriptive gap, everyone would be in danger of falling under the term, ‘moved things.’[[10]](#footnote-10) Second, an infinite regress would force itself into discourse. If only indirectly aware of her movement, the mover would need a separate vantage point within herself from which she observed the movement, which would continue *ad infinitum*. Both of these consequences derail theoretical-explicative attempts completely.

To summarize, we must first take the spontaneous action tested in the experiments seriously since deliberative intentions interweave with the substrate of spontaneous intentions. Also, we can succinctly synthesize the three characteristics that an intention to act comprises within the context of the experiments. First, an intention to act involves an internal aspect basic to experience. Second, this internal aspect must essentially complete itself in external realization to count at all. These first two characteristics represent two necessary, inseparable halves of the intentional whole. Third, the amalgamation between the internal aspect and the external realization should be *directly* known without recourse to observation.

Without knowing more about intention as such, we can posit a greater understanding of that which the experiments must suppose as occurring during the reporting of the participant. The participant, in contrast to feeling pain, should affect, instead of being effected. Due to the assumption that this movement is (i) a unified amalgam of a basic kind between one internal and one external aspect that constitute a singular moment, and (ii) an amalgam *about which the participant should be directly conscious*, the presupposition is that a comparison with other basic, and directly knowable information is unproblematic. The artificially recorded information represents information, which may also be individuated into basic, comparable elements. Thus, the experimenters presume that a comparison between a person’s self-reported intention to act and measurements from machines poses no inherent contradiction.

The presupposition, *phenomenologically speaking*, is that the only salient moment to be considered in person’s first-person perspective is this internal moment of intention, which is directly attached to the actual action without requiring observation. This presupposition trivializes the rest of the first-person perspective, treating it as irrelevant to the precipitant moment of action. Yet, even if we were to grant the investigators the point and forget all overarching phenomenological complexity, the presupposition would still remain problematic. For when considered in a phenomenological light, even the ostensibly basic moment of willed (and, thus, intentionally) spontaneous action embedded within the first-person perspective consists of at least *two* acts, where the presupposition posits only *one*.

4. in a phenomenological light

Let us now consider specifically those operations of reporting that are at play in the experiments testing the free will. First, both operations of reporting focus on the same trigger-event. A movement occurs, which the subject (necessarily) intends. Second, two operations should report the occurrence of this movement. The first operation of reporting is the measurements by the artificial, mechanical devices involved, which react automatically; they consist in a chain of *single actions*. We must suppose a pure cause-effect relation with regards to the recording actions of the devices. If our artificial means for recording information consisted of the same layering found in embodied perceptual consciousness, then they could hardly offer accurate measurements. Furthermore, the reports created by these operations are static in the sense that the data remain intransigent to external manipulation. As much as one may like to rearrange a bad photograph of oneself, the pixels remain (*sans* technical manipulation) fixed upon the paper; just so, a major tenet of empirical natural science, is that the data are static pieces of information, which remain the same regardless of one’s point (and time) of view. The data are fixed – because the operation fixing them is designed to do just that – freeze and capture that which comes before it, and only that which it is designed to freeze and capture.

The other operation of reporting is the intentional self-reporting embedded in the first-person perspective of the participant. When considered in a phenomenological light, even the so-called basic or direct moment of spontaneous action (as discussed in the second part) consists in at least two actions. First, the urge or decision to act occurs and one is simultaneously aware of this. Second, the participant must combine this initial act1 with the perceptual and cognitive act2 of marking this felt urge by remembering the position of an external timepiece. These two acts, albeit banal when compared with more complex activities and tasks, reveal the implicit complexity of our experiences. If asked, a participant could not locate the interval between the two acts because the two acts occur as if they were one more complex act. Pointing out that in fact two acts fill the space *where an elementally simple action is postulated* provides enough potency for revealing a basic asymmetry – especially, when one considers that these two acts interweave with the ever-unfolding history of the participant in affective embodiment. Where empiricism posits a simple datum, we actually find a multi-faceted action, which cannot be boiled down to a single, basic element.[[11]](#footnote-11)

But are they truly *two* acts? The basic considerations of the experiment postulate that this moment of intention, at least in theory, should be just as immediate as any other immediate action. We should be able to move spontaneously in some way no matter how confined the space. The investigators, however, want *consciously* considered, spontaneous freedom, indicated by an awareness of the time that one was *conscious* of the urge to act. Thus, two acts do occur, and necessarily so for the sake of the experiment, which wants not just arbitrary pressing of buttons, rather decidedly *timed* pushing of buttons. The person does not simply move. The person moves and at the same time makes conscious note of the position of an external timepiece. Although not requiring any grandiose physical movement, a second act coinciding with the pressing of the experimental button should indeed occur via the conscious attention given *to* a moving, external object. The two acts are not *only* logically present in the executed action; they are, in fact, implicit in the instructions given to the participants by the investigators. The experiment requires that both acts occur. It simply forgets to take into account the precondition for such multi-faceted actions occurring in the first place: namely, an unfolding presence of mind permanently constituting such multi-faceted moments.

Drawing attention to this complexity does not require technical language of the classic phenomenological sort (although such language would be easy to find). Instead, the complexity is so unmistakably evident from our everyday experience that we mistake it as constituting data, which may be compared without question to the information measured by automated machines and manipulated immediately by algorithms of computer programs. This presupposition, which supports the methodology of the experiment, fails. For, *if forced to compare the two processes, then the asymmetry of the (i.) statically preprogrammed, next to the (ii.) dynamically (i.e., lived) multi-faceted, necessarily refutes prima facie claims of congruency.*

Yet, is it not possible to deny this claim of inherent incongruence between the operations evidentially? It is precisely the insight (quite literally, *in*-sight) offered by fMRI readings, which is cited as the final nail in the coffin of free will. How can it be that readings from the machine allow (albeit with some margin of error) predictions of which hand the participant will move 7 – 10 seconds before the actual ‘conscious’ act?

To such a rebuttal, one must again turn to the methodological presupposition of the experiment. When brain activity in the frontopolar and parietal regions of the brain is being detected 10 seconds prior to the action, the key question goes unasked: namely, what is going on within the thoughts of the participant prior to and during those 10 seconds? The reason that this question goes unasked is due to the basic presupposition of the experiments, which is that the free will we want to measure is of a basic, directly knowable kind. It is *solely* the pushing of buttons, which counts as an immediate and directly knowable moment. The problem with such a presupposition is that the simplification of the self-reporting operation whittles the enlivened participation down to a flash of intentional action.[[12]](#footnote-12)

When looking to the 10 seconds intervening between the onset of cerebral activity and the actual action, one understands why investigators forget the phenomenological context. After all, the participant is remaining as still as possible in those seconds for the sake of accuracy. Further, she is not in those moments supposed to be ‘planning’ her act, rather waiting to feel the conscious ‘urge’ to act. Thus, if compliant with the instructions, she should not be filling this temporal span with a mental countdown. And yet, in a phenomenological light, there is one more facet worth mentioning, which (as with the acts above) is required by the context of the experiment. This facet represents a sort of background, tacit awareness: the participant, while fulfilling the assigned tasks, *should* be simultaneously conscious of her role in the experiment. In other words, the experiment demands that the participant maintains in those 10 seconds the constant and tacit knowledge that she is in an experiment with a pre-determined role to play. Thus, in those ten seconds she is, for the experiment’s sake, present of mind and not daydreaming instead about lying in a hammock. By ignoring this tacit, but necessary consciousness, the investigators forget to be consistent regarding their presupposition. They forget that, even in the absence of visible movement, phenomenological acts and contents are definitely occurring just below the surface.

In our phenomenological analysis, no supernatural material is necessary to explain these contents. A purely descriptive attentiveness finds the supposedly basic action to be multi-faceted. Empirical investigations are important, but must also respect the inherent complexity of the first-person perspective. Instead of rushing through presuppositions towards the coveted results, one must first honor the context.

5. What Phenomenology Offers a Discussion of ‘Embodied Religion’[[13]](#footnote-13)

With ‘honoring the context’ in mind, here are a few caveats regarding the following subsections. First, my *personal* background, along with the background of the discussed author, is a Christian monotheistic one. Second, the jump from the above critique into philosophy of religion may seem quite jolting. Yet, I think it is, in truth, quite logical. Finally, my considerations build upon only a fragment of theoretical considerations from a philosopher who has written a substantial corpus. Thus, the following points cannot do justice to the thinker at hand, nor can it offer a positive theory; instead it looks to implications arising out of the above considerations, which offer food for further thought.

Why is the transition logical? It is logical, because free will is the *sine qua non* of moral responsibility. From the conception of ‘moral responsibility’ follows (necessarily) the notion of good and evil. It is then a short jump to religion, in which discourse abounds about an all-good God and our freedom to try and emulate this paragon of goodness. Thus, philosophers of religion must take seriously a free will experiment claiming that human actions are actually predetermined, not by the individual or God, but by an unconscious ‘readiness potential.’ Since this discourse includes necessarily talk of *experience*, and phenomenology is the investigaion of experience, it follows that our transition is well grounded. Moreover, the philosophy of religion cannot help but allow phenomenological considerations into discourse, as long as it welcomes the theme of the individual’s religious experience as such.

The discussion that follows resonates with a slightly disharmonic relation to one position maintained by Marcel Sarot in this volume. Principally, Sarot’s contribution[[14]](#footnote-14) is insightful in its adumbration of the role that free will plays both in Christian religion and neuroscience. His denial, however, that the experiments *in principle* pose any challenge to our belief in free will finds disharmonic resonance with the above critique.

5.1. The Point of Disharmony with Sarot

Let us consider that aspect of Sarot’s (quite enlightening paper) that fails to harmonize with the above considerations. The critical juncture deals exclusively with his treatment of the limitations of empirical experiments.

First, let us consider the point that he wishes to make. Sarot begins by granting empirical experiments their due. Empirical experiments ‘shed some light’ on the question of free will.[[15]](#footnote-15) Specifically, he is willing to accept that science sheds light on ‘a limited class’ of actions, which constitute ‘random and pointless bodily movements.’[[16]](#footnote-16) In other words, the results of the experiments should be accepted, as long as one simultaneously grants that the *real* class of free actions, namely, ‘acts of moral or religious significance,’ remain unaffected. Sarot accepts the experiments to be valid ‘in principle,’ but ‘in practice’ claims that they have no bearing on what matters. [[17]](#footnote-17)

Reasons abound for doubting *in principle* such a claim of methodological validity. Briefly, one could first show that such a presupposition overlooks the inherent incongruence of the compared operations. Yet, even circumventing this source of doubt leaves a serious problem, namely, the question of differentiation. *How* does one differentiate acts of fake intention from real intention, if the acts of fake intention, in the end, constitute the real ones? One can attempt, like Anscombe, to argue for a sort of ‘swallowing up’ of the micro-intentions within the macro-intention ‘under which’ the micro ones are executed. Such an attempt, however, maintains *one form* of intention expressed multifariously, rather than *two* distinct species. Thus, we would conclude the opposite of Sarot, namely, that the experiments are limited not only in practice, but also in principle, because intention makes no sense if reduced to a lightning strike of intention (i. e., extricated of all context). Intention, even in ‘pointless’ acts, remains principally opposed to complete reduction.

Trying to answer the question of where ‘real’ intention begins and ends poses a serious problem because such a division leads inevitably to dichotomies. Such dichotomies, however, may be acceptable for Sarot. I think, however, that a dichotomy would remain, which would fail logically and which would be unacceptable even for Sarot.

First, what sort of a free will is it that Sarot believes in? He writes: ‘I defend indeterminism with respect to human choices and actions.’[[18]](#footnote-18) If, however, empirical methods indeed were limited not in terms of ‘principle,’ but in terms of ‘practice’ (as he states), then the empirical methods in question, it follows, could (eventually) explain the ‘real,’ libertarian free will (i. e., the will free of all external determinants). This would, in turn, require that empirical methods could reveal the ‘why’ of our actions more precisely than any first-person account ever could; they would essentially be capable in practice of finding the determining source. An empirical prescience could reach beyond simple predictions as to which hand one will use to press buttons. Accepting empiricism as capable of finding, in principle, unconscious determinants of spontaneous acts, would grant the hypothetical possibility of it finding determinants of libertarian, intentional acts as well. If this were the case, empiricism would reach beyond pure *observation* – it could literally discover within the participant the determinants before the late-working consciousness knew the faintest. The reasons we argue to defend our ‘libertarian free will’ would become epiphenomenon of a compatibilist sort, which is precisely the position Sarot claims to oppose.[[19]](#footnote-19) In other words, the dichotomy would cut deeper than that of body and spirit; it would cut between (a) the omniscience of our science (and Creator) and (b) our pseudo-knowledge. An empirical discovery would (in practice) undercut our own, direct grasp of our intentions. *The only way of avoiding such a dichotomy is advocating that even intentions behind ‘random and pointless’ bodily movements are principally irreducible when it comes to* complete *reduction under physical laws.*

5.2. Embodied Religion?

In summary, the phenomenological complexity of experience revealed the problematic nature of experiments that treat it as basic. Following this thread, Sarot’s position was discussed with regard to a critical implication taken from my critique. In contrast to Sarot, I advocated the complexity of intention for even the most ‘random and pointless bodily movements,’ [[20]](#footnote-20) and defended them from *prima facie* reduction.

But can we avoid a dualism between the phenomenological on one side and the physical on the other? Avoiding dualisms is a challenge. Conceptions dealing with embodiment, however, attempt to get around dualisms by treating the person and her environment as a whole. It is impossible to think of a person living outside of an ecological environment, outside a cultural environment, or outside of an interpersonal environment. Thus, embodiment carries with it many dimensions, which carry undetermined weight in developing a person both physically and experientially. Embodiment is a concept used for avoiding dualisms – it introduces instead pluralisms.

Our critique above revealed the essential contextual complexity of even unreflective movements. Now, what does the embodiment hinted at in this critique have to do with religion? At first glance, the connection is nothing *explicit*. The embodied first-person perspective must not involve religion. A religious person, however, is religious within a context. Faith and doubt, piety and sin, these words mean nothing in a vacuum, because they, at least as far as they can be considered *through* experience, also *begin and end in* experience. An embodied religion, then, in contrast to a purely systematic view of religion, must incorporate the context of the person’s direct experience. Although banal, a look towards religious experience wins much from the above considerations. Rather than revealing the complexity of simply moral, deliberative acts, a more fundamental sphere was detailed, in which the discourse defended the entire, saturated first-person perspective from reduction. Thus, a religious experience wins from an embodied conception because value is placed on the experiential stream as such. Or put differently, embodied religious experience may play out on a physical stage, but referring to physical laws alone fails to elucidate such an experience’s meaning.

1. Benjamin Libet *et al.*, ‘Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness-Potential),’ *Brain* 106 (1983), 623–642. [↑](#footnote-ref-1)
2. John Dylan-Haynes *et al.*, ‘Unconscious determinants of free decisions in the human brain,’ *Nature Neuroscience* 11/5 (May 2008), 543–545. [↑](#footnote-ref-2)
3. Libet, ‘Time of Conscious Intention to Act,’ 623: ‘The onset of cerebral activity clearly preceded by at least several hundred milliseconds the reported time of conscious intention to act.’ [↑](#footnote-ref-3)
4. Dylan-Haynes, ‘Unconscious Determinants of Free Decisions,’ 544: ‘Indeed, we found that two brain regions encoded with high accuracy whether the subject was about to choose the left or right response prior to the conscious decision.’ [↑](#footnote-ref-4)
5. Jürgen Habermas, *Zwischen Naturalismus und Religion: Philosophische Aufsätze* (Frankfurt am

   Main 2005), 160, my translation. [↑](#footnote-ref-5)
6. G.E.M. Anscombe, Intention (Cambridge, Massachussetts 1957). [↑](#footnote-ref-6)
7. Anscombe, Intention, §26, esp. 46. [↑](#footnote-ref-7)
8. John Bishop, in ‘Exercising Control in Practical Reasoning: Problems for Naturalism about Agency,’ in *Philosophical Issues*, 22, Action Theory (2012), refers to spontaneous, unreflected action as consisting in ‘sub-agential’ components that ‘belong to *what realizes* the action’ (12). Here, as above, the argument grants naturalistic accounts those actions requiring little-to-no reflection, while seeking higher ground by attending truer, or more paradigmatic cases of intention, or as Bishop puts it, ‘real agency’ (13). Although insightful and differentiated, I cannot see how one can successfully draw a line between intentional actions of a sub-agential kind, and those of a real kind, *and* avoid falling into some sort of dualistic picture. [↑](#footnote-ref-8)
9. Anscombe, *Intention*, §8, esp. 14. [↑](#footnote-ref-9)
10. Or, consider if you move and then were asked, ‘How did you know you really moved?’ The movement is mine without needing to refer to some mediating relation – no degree of separation exists between my pushing the button now and my intending to do so. [↑](#footnote-ref-10)
11. For an account of the impossibility of reducing the experiential experience of time down to basic, singular elements, cf. Henri Bergson, *Zeit und Freiheit* [*Essai sur les données immédiates de la conscience*, Paris 1889] (Jena 1911), esp. 134ff. [↑](#footnote-ref-11)
12. See Fuchs, ‘Verkörperte Freiheit – personale Freiheit,’ in: *Marsilius-Kolleg* 2008*–*2009 (Heidelberg 2010), 43, in which he refers to this simplification of the free will as one that presents it as being ‘isolated’ and ‘lightning-like’ (‘*blitzartig*’), which further focuses the consideration at hand – the free will is set off in a vacuum (isolated) and so simple that it is practically elemental (lightning-like). [↑](#footnote-ref-12)
13. The notion of ‘embodied religion’ arises from the conference title of this year’s European Society for the Philosophy of Religion (ESPR) Conference in Utrecht, the Netherlands. [↑](#footnote-ref-13)
14. Marcel Sarot, ‘Christian Faith, Free Will and Neuroscience,’ 000. [↑](#footnote-ref-14)
15. Sarot, ‘Christian Faith, Free Will and Neuroscience,’ Section 5. [↑](#footnote-ref-15)
16. Sarot, ‘Christian Faith, Free Will and Neuroscience,’ Section 5. [↑](#footnote-ref-16)
17. Sarot, ‘Christian Faith, Free Will and Neuroscience,’ Section 5. [↑](#footnote-ref-17)
18. Sarot, ‘Christian Faith, Free Will and Neuroscience,’ Section 3. [↑](#footnote-ref-18)
19. Sarot, ‘Christian Faith, Free Will and Neuroscience,’ Section 3. [↑](#footnote-ref-19)
20. Sarot, ‘Christian Faith, Free Will and Neuroscience,’ Section 5. [↑](#footnote-ref-20)