Strong Libertarian Free Will and Libet's Intentions*

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Abstract

While other philosophers have pointed out that Libet's experiment is compatible with compatibilist free will and also with weak libertarian free will, this article argues that it is even compatible with strong libertarian free will (SLF), i. e. a person's ability to initiate causal processes. Contrary to what Libet suggested, the actions in the experiment were motivated by urges. It is in accordance with SLF that the urges had preceding unconcious causes. Furthermore, Libet's observation that vetoing is possible confirmes SLF.

Keywords: libertarian free will, Libet, neuroscience

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1 Introduction

It is widely believed that Benjamin Libet's experiment[1] has shown that our actions are caused and initiated by unconscious brain events before we undertake them consciously. There is still a lively discussion about Libet's experiment.[2] Compatibilists (like Gomes 1999 and Schlosser 2012) believe that an action's being free is compatible with its being the result of a causal process and that the reasons for an action (or the beliefs in them) are amongst its causes. For for some compatibilists, free will is for that reason compatible with Libet's experiment. Only the strongest libertarian notions of free will are generally taken to be in conflict with Libet's experiment. Some philosophers defend free will against the evidence from neuroscience by saying: 'Only a very old-fashioned, mysterious kind of free will is incompatible with Libet's experiment. Nobody would defend that nowadays!' Alfred Mele for example writes:

> Only a certain kind of mind-body (or 'substance') dualist would hold that conscious intentions do *not* 'arise as a result of brain activity,' and such dualist views are rarely advocated in contemporary philosophical publications on free will. (Mele 2009, p. 67)

In this article I shall argue that Libet's experiment is compatible even with the view that decisions are not the result of causal processes, which is similar to the view which according to Mele is rarely advocated. This view – strong libertarian free will (SLF)

[1] The experiment is described in Libet, Wright et al. 1982 and Libet, Gleason et al. 1983. Libet 1985 and Libet 1999 present Libet's interpretation. In what follows publication years refer to Libet's articles unless specified otherwise.

[2] For example in Sinnott-Armstrong and Nadel 2011, Schlosser 2012, 2014, McCall 2013, Pacherie 2014, Pitman 2013, Robinson 2012, Batthyány 2009, Bayne 2011.

– is the view of free will which is most difficult to reconcile with Libet's experiment and which was refuted by Libet's experiment if any was.

I shall proceed by addressing the following points:

- What do I mean by 'strong libertarian free will'?
- The events whose preceding unconscious causes Libet investigated (W) are not 'intentions' but 'urges'.
- Libet used the words 'spontaneous', 'voluntary' and 'self-initiated' misleadingly.
- What are urges? Given SLF, urges are to be expected to have preceding unconscious causes.
- Libet's observation of the possibility of vetoing confirms SLF.

2 Strong libertarian free will (SLF)

(2.1) Let me state the view of free will whose compatibility with Libet's experiment I want to defend. The causal process that leads to the intended result of an action, such as a movement of the hand, I call the *action process.* If the action process was under way before the person thought about the action and made the decision, then the action was not free. In a free action the action process has a beginning a part of which has no preceding event cause, neither a deterministic nor an indeterministic one, but its occurrence is due to the agent. It is an event that has no preceding cause but is brought about directly by the agent. I call such an event a *choice event.* Agents have the power to make certain events pop up; through this they can initiate causal processes.

(2.2) So there is a third way how an event can come about,

besides being the result of a non-probabilistic process and being the result of a probabilistic process. This is the denial of *mechanicism*, the view that every event is the result of a causal process. Choice events are brought about by the agent in the light of reasons or following inclinations, but reasons (or belief in reasons) and inclinations are not event causes (process causes, law-governed causes) of the actions. Only with an unusually wide notion of 'cause', such as Aristotle's Greek notion 'aitía', one can call a person's belief in a reason for which he moved his hand a 'cause' of the action or of the movement. The relationship between this belief and the movement is very different from the relationship to which we refer when we say that the earthquake caused the tidal wave. Here are three differences: First, we would not usually say that the belief 'brought about' the movement. Rather, the person brought about the movement, in the light of the reason in which he believes. Second, the relationship is not governed by laws of nature. Third, there is no causal process leading from the belief to the movement. If there were, then the occurrence of the belief at a certain time together with certain other facts would be a complete cause of some event at each time after, so that this complete cause determines exactly which effect will occur at which time, if nothing intervenes; as the earthquake together with certain other facts determines exactly at what time the tidal wave will be where and how big.

(2.3) Whether we call the agent the 'cause' of the choice event, as the defenders of agent causation do (Chisholm 1976, p. 201, Clarke 1993, Swinburne 1997, p. 231), or say that the choice event was 'uncaused' (Ginet 2007) does not matter here. That is just a matter of how the word 'cause' is ordinarily used and in how wide a sense we want to use it. What matters for our discussion of the neuroscientific data is that a choice event has

no preceding cause and that the agent initiates a causal process.[3]

(2.4) Mele suggests, in the quotation above, that such a view entails dualism. Some form of dualism may be plausible given SNF, but strictly speaking SNF does not require dualism but just the negation of *mechanicism,* i. e. the view that every event must be the result of a (deterministic or indeterministic) causal process.[4] A materialist could claim that some material things can bring about choice events. That claim is probably not more difficult to defend than the claim that some material things can think or can act for reasons.

(2.5) I call this notion of free will 'strong' libertarian free will in order to distinguish it from Mele's (2006, p. 10; 1995, pp. 211–221) or Clarke's (2000) 'modest libertarianism' or Clarke's (1993) 'credible agent-causal account of free will'. These views assume that the action is caused by preceding events, but only indeterministically. Some hold that the process of deliberation must be indeterministic (Mele 1995), some hold that the action itself must be caused indeterministically (Balaguer 2009), some say that the undertaking the action was caused by the agent, wherefore they call it 'agent causation', and that an action is free if the undertaking has no preceding deterministic cause (Chisholm 1976, p. 201, Swinburne 1997, p. 231).

(2.6) The trouble with these views is that randomness in the action process always diminishes the agent's control over the action. It is true that if an action process were indeterministic, then it would be in some sense true that it was possible, until the action occurred, that another action would occur instead of the one that did occur. In this sense it is true that the agent

[3]For more details see Wachter 2003 and Wachter 2009, ch. 7. Other authors who claim that actions involve events that have no preceding cause are Ginet (2007), Lowe (2008, p. 12), and Meixner (2004, ch. 9).

[4]Also Gomes (1999, p. 63) assumes that denying that all brain events are the results of purely material causal processes entails dualism.

could have acted differently. But this is not what we are getting at when we say that a free agent 'could have done otherwise'. If it is a matter of chance which action occurs, that is, if it is due to a probabilistic process which action occurs, then it is not up to the agent what he does. An action that occurs by chance is not a free action, because the agent lacks control over which action occurs. If an action is the result of an indeterministic, chancy process, then the agent has as little control over it as an agent has over an action that occurs as the result of a deterministic process.

(2.7) If Libet's claim that in all actions 'the volitional process is [...] *initiated* unconsciously' (1999, p. 47) were true, then it would not be initiated by a choice event. Therefore, there would be no strong libertarian free will. I shall elaborate one argument for the thesis that Libet has not provided evidence for his claim.

3 The popular interpretation of Libet's experiment

The popular picture, which Libet presented himself when discussing free will (for example in 1999), goes like this.

> In his experiment Libet told some test persons to move their hand whenever they wanted to, 'on her/his own initiative' (1999, p. 47). He wanted to know when the conscious intention to act appears. Therefore he gave the test persons a special clock and asked them to report the time at which they were first aware of the intention. This first awareness is referred to as 'W'. At the same time he measured when the muscle activity and when a certain brain event, the 'readiness potential' (RP), began. The result was that W begins 200 ms (milliseconds) before muscle activity, and RP begins 350 ms before W. Therefore 'the volitional process is [...] *initiated* unconsciously', before the agent consciously undertook the action. (1999, p. 47)

I want to show now that the experiment does not support the claim that the volitional process in free actions is initiated unconsciously. Libet misdescribed the nature of W and investigated the wrong kind of actions. While he mostly described W as the 'intention', W is an *urge*. Elsewhere I have argued that the RP does not cause W but is only a preparation to move, but I put this issue aside here and assume, for the sake of the argument, that in the experiment the RPs caused the actions.

4 Libet's seven labels of the conscious event W

(4.1) Thesis: Libet's using many different labels for W misleads the reader to believe that the persons were entirely free in when to move their hand, while in fact they were instructed to wait for an urge.

(4.2) As already Mele (2007) and O'Connor (2009, p. 181) have pointed out, Libet used many different labels for W, apparently randomly. Before listing the many labels which Libet used, I want to point out which label was used in the instruction that the test persons received. In the first few trials 'the subject was asked to wait [until the clock pointer had passed a certain point] and then, at any time thereafter, when he felt like doing so, to perform the quick, abrupt flexion of the fingers and/or the wrist of his right hand.' (1982, 324r (right column)) But for some reason, which Libet does not describe, after some trials Libet introduced a new instruction. The test persons were instructed to '*let the urge to act [move their hand] appear on its own at any time without any preplanning or concentration on when to act*'. (1982, 324r, similarly 1983, p. 625) So, as already Batthyány (2009, p. 150) has pointed out, the test persons were told to *wait* for an urge and to move their hand only when an urge arises. Here is a further passage that shows this:

> It was not uncommon for subjects to feel an urge to move that was not consummated in an actual movement, as if that urge was 'vetoed,' and then to wait for a new urge that did lead to movement. (1982, p. 333l; similarly p. 329r)

Now let us see what other labels Libet used.

(4.3) 'Intention': Already in the title of the 1983 article W is referred to as the 'conscious intention to act'. The label 'intention' is the label Libet used most often.[5] In the summary at the beginning of the article from 1983, Libet refers to W with the phrase 'the reportable time (W) for appearance of the subjective experience of "wanting" or intending to act' (623). The word 'urge' is not mentioned in the summary at all. It is first mentioned in the introduction in the phrase 'conscious awareness of the voluntary urge or intention' (624). Why does Libet say 'voluntary urge or intention' where it would obviously most precise to say just 'urge'?

The quotation marks around 'wanting' are Libet's. He put also other labels of W into quotation marks. Their purpose may be to indicate that the test persons used these phrases. But it is not clear at which occasion they used them, because it is *not* as if the test persons were told to move their hand whenever they wanted to and then asked what it felt like. Libet himself presented the experiment in later articles as if the instruction had been thus when he writes that 'the subject performed the sudden flick of the wrist whenever he/she freely wanted to do so'[6]; but that is

[5] For example, Libet called W an 'intention' in the title of Haggard and Libet 2001, 'Conscious Intention and Brain Activity', and still in his last article on free will he refers to W as 'the urge or intention to perform a voluntary act'. (Libet 2006, pp. 541, 543) Further occurrences of the label 'intention' for W: 1985, p. 532; Libet 1999, pp. 47, 49, 50, 53, 54, 55; Libet 2002, pp. 291, 292; Libet 2003b, pp. 322, 325; Libet 2006, pp. 541, 543, 545.

[6] 1999, p. 50. Also in recent articles this description is accepted, e. g. by

misleading. The test persons were given definite instructions to act only on an 'urge'. Perhaps Libet used the quotation marks in order to indicate that he uses the term metaphorically or in a stretched sense or incorrectly. But the correct term would have been 'urge', because that term was used in the instructions.

(4.4) 'Decision': At the end of the summary of the 1983 article, we read that the cerebral initiation of an action begins 'before there is any subjective awareness that a "decision" to act has already been initiated cerebrally' (623). (Again the quotation marks are Libet's.)

(4.5) 'Wanting': In the body of the article, where the nature of W is discussed, we read:

> The subject was asked to note and later report the time of appearance of his conscious *awareness of 'wanting' to perform* a given self-initiated movement. The experience was also described as an 'urge' or 'intention' or 'decision' to move, though subjects usually settled for the words 'wanting' or 'urge'. (1983, p. 627)

Here Libet says that the test persons used all these different terms, but it is not clear at what occasion they did and whether this tells us something about the nature of the experience. Does it mean that sometimes W was an urge, sometimes a decision, and sometimes a intention? Or was W always all of these three?

(4.6) 'Wish': The next label for W we find in the phrase: 'the subjects reported that each urge or *wish* [Libet's emphasis] to act appeared suddenly "out of nowhere", with no specific preplanning or preawareness that it was about to happen.'[7]

(4.7) 'Volition': A further label for W is used in the *page header*

McCall 2013, p. 262: 'Subjects were asked to perform a simple flick of the wrist whenever they wanted'.

[7] 1983, p. 638. The label 'wish' is also found on p. 640 of 1983, p. 638, as well as in many places in Libet's later articles, e. g. 2003a, p. 24 and Libet 1999, pp. 49, 50, 51, 52, 53.

of every odd page of the article from 1983 although it is never used in the body of that article: *volition*. The page header is 'Cerebral and Conscious Times of Volition'.

(4.8) 'Desire': In Libet's later articles we find a further label: 'desire' (1985, p. 530).[8] Nowhere does Libet clarify any of the labels or discuss the nature of event W. Clearly, not all these seven labels apply to any one event, even if we stretch their ordinary meanings. Often Libet added to the correct label 'urge' another label, e. g. 'urge or decision' (1985, p. 530) or 'urge or intention' (1982, p. 329, 1983, p. 624, and 2006, p. 541). It is of course true that 'W is an urge or a decision', even though 'W is a decision' is false, as it is true that 'Bill Clinton is a man or an elephant' even though 'Bill Clinton is an elephant' is false. But given that, as I will explain, Libet's claim that all our actions are initiated unconsciously follows from the thesis that our decisions are caused by RPs, but not from the thesis that urges are caused by RP, the difference between urge and the other labels matters.

(4.9) Given that the test persons were instructed to act on an urge, did they actually move their hands on urges? Yes, but probably the urges were not very strong. The urges that motivated the movements were not as strong as the urge of a thirsty man to drink water or the urge of a gambling-addicted woman to gamble. For most people, if they try to follow Libet's instructions, only weak urges, like twitches, will arise and motivate the movements. The urges in the experiment were *resistable*, which is why Libet could later instruct the persons to veto the urge. Further, the urges were sudden and short. But still they are rightly described as urges.

[8] 'Desire' is used in 1983 too, but only in a general statement about 'an experience of conscious intention or desire to perform a voluntary act' (640), not specifically as a label of W.

5 The nature of W

(5.1) The readiness potential had been discovered already by Kornhuber and Deecke in 1965, who gave it the German name 'Bereitschaftspotential', which is used in neuroscience.[9] They had instructed their test persons to move their hand in time intervals of 30 seconds. Libet, Wright et al. (1982) claimed to have removed this constraint:

> In our experiments, however, we removed this constraint on freedom of action; subjects performed a simple flick or flexion of the wrist at any time they felt the urge or wish to do so. These voluntary acts were to be performed capriciously, free of any external limitations or restrictions. (1999, p. 49; similarly 1983, p. 624)

(5.2) After some trials, Libet changed the instruction given to the test person. The instruction in the first trials:

> [T]he subject was asked to wait [until the clock pointer had passed a certain point] and then, at any time thereafter, *when he felt like doing so,* to perform the quick, abrupt flexion of the fingers and/or the wrist of his right hand. (1982, p. 324, my emphasis).

This is in accordance with Libet's description of the experiment in later discussions about free will, where he often suggested that the test persons were instructed to move their hand *whenever they wanted to.* For example: '[T]he subject performed the sudden flick of the wrist whenever he/she freely wanted to do so.'(1999, p. 50). But in fact after a few trials the instructions were changed, and the results of the first trials were left aside:

[9] Cf. Jahanshahi and Hallet 2003 and Shibasaki and Hallett 2006.

> An additional instruction to encourage 'spontaneity' of the act [was given to the test persons. ...] The subject was instructed 'to let the urge to act appear on its own at any time without any pre-planning or concentration on when to act,' i. e. to try to be 'spontaneous' in deciding when to perform each act; this instruction was designed to elicit voluntary acts that were freely capricious in origin. (1982, 324r; similarly 1983, p. 625)

After the trials Libet asked the test persons 'whether they were aware of any pre-planning', whether the acts appeared 'out of nowhere', and whether 'the subject was surprised by having moved' (1982, p. 325l). It is not clear what Libet did with the responses, but it seems as though for the measurement of the time between RP and the conscious event W (intention, urge, etc.) and for his discussion of free will, Libet took into account only those trials without pre-planning, where the acts appeared out of nowhere and the subject was surprised of having moved.

(5.3) Why did Libet introduce these instructions after some trials? He did not tell us, but probably the reason was that some or all test persons in the beginning acted just *when they wanted to*, without an urge, and these trials did not produce the results that Libet was looking for. With the first instruction the RP began so early that the hypothesis that it caused and initiated the acts was implausible. Perhaps thinking about moving the hand caused an RP. Libet carefully designed the experiment so that the test persons do not act whenever they want to, but wait for an urge, so that the acts appeared out of nowhere[10] and the person was surprised by having moved.

(5.4) It is interesting which words Libet used for describing the trials in which the second instruction was used. First, if somebody moves his hand whenever he wants to, according to

[10]That the urges arose 'out of nowhere' is confirmed by 1982, p. 324 and 1983, p. 638.

the first instruction, then one might describe that as a 'spontaneous' action. However, Libet calls those acts 'spontaneous' (1982, p. 325) which, following the second instruction, appeared 'out of nowhere' because the person 'let the urge to act appear on its own'. To those acts he ascribed 'complete "spontaneity"'. That is misleading because that an action is spontaneous implies that it is initiated by a decision of the person rather than by an urge.

(5.5) Second, if somebody moves his hand whenever he wants to, according to the first instruction, then one might describe that as a 'voluntary' action. However, Libet called those movements 'voluntary acts' in which the person, following the second instruction, was surprised by having moved.[11] That is misleading because that an action is voluntary implies that it originates in the will of the person, rather than in an urge. The movements in Libet's experiment were not as involuntary as an alcoholic's drinking, because the urge did not greatly weaken the will. As Libet's veto trials confirmed, the persons were free to resist the urge. But the movements which resulted from the second instruction were not exactly paradigms of voluntary actions, and they were less voluntary than those which resulted from the first instruction.

(5.6) Third, if somebody moves his hand whenever he wants to, according to the first instruction, then one might describe that as a 'self-initiated' action. However, Libet called those movements 'self-initiated' in which the person, following the second instruction, was surprised by having moved.[12] That is misleading because that an action is self-initiated implies that it was

[11] Libet called the movements 'voluntary' in his articles from 1982, 1983, and 1985.

[12] Places where Libet calls the investigated movements 'self-initiated': Libet, Wright et al. 1982, pp. 322, 324, 325; Libet, Gleason et al. 1983, pp. 623, 624, 625, 627; Libet 1999, pp. 48, 51; Haggard and Libet 2001, p. 57.

initiated by the self rather than by an urge.

(5.7) Libet probably emphasized that the movements investigated were 'spontaneous', 'self-initiated', and 'voluntary' in order to make the readers believe that the actions investigated are free if any are free. If the actions investigated were initiated unconsciously, then *all* our actions are initiated unconsciously. Note the word 'even' in the following statement of Libet's claim: 'Cerebral initiation even of a spontaneous voluntary act of the kind studied here can and usually does begin *unconsciously*.' (1985, p. 536 l)

(5.8) Libet's assumption that if the actions investigated were initiated unconsciously, then all are, is false. Some actions are done on urges, others not.[13] Libet did everything he could to ensure that the test persons do not think, reason, or decide voluntarily about when to move the hand. While Libet claimed that the actions which he investigated are the best candidates for being free actions, so that if any actions are free, then these are, in fact this is not so. To the contrary, if any human actions are initiated in the brain before the person's first thoughts about the action, then those that Libet investigated are.[14]

[13]This view also provides an answer to McCall's (2013, p. 264) question how Libet's experiment is to be reconciled with the start of a 100 metre dash: runners do not start to run on an urge.

[14]Thus I agree with Roskies (2011, p. 20): 'Libet's studies definitely impact our understanding our understanding of only a small number of our actions, and these appear to be the ones that are least likely to matter for discussions of freedom.' Also O'Connor 2009, 181f states that the actions 'are not prototypical spontaneous conscious willings', because they are not spontaneous and the instruction to wait for an urge 'encourages a passive posture'. I disagree with Bayne (2011, § 3), who accepts that the actions in Libet's experiment 'provide the free will sceptic with a legitimate target.'

6 Urges

(6.1) In order to examine whether Libet's experiment provides evidence against strong libertarian free will (SLF), we need to investigate the nature of the urges in Libet's experiment and consider which outcome of Libet's experiment SLF leads us to expect. My thesis is that, according to SLF, an urge to move one's hand may well have preceding unconscious causes, while other actions do not have preceding unconscious causes, and that therefore Libet's experiment provides no evidence for the claim that all our actions are caused unconsciously and that we thus have no libertarian free will.

(6.2) Against the Humean view that all actions are motivated by desires, I suggest that an action can be motivated by reasons and the person's beliefs in them or by inclinations, such as drives, desires, or urges. I might eat your steak out of an urge while believing in overriding reasons for not doing so because the steak is your property. On the other hand, I might do something for which I have no inclination, but to the contrary an aversion against doing it. I am then acting on the reasons, against my inclination. Of course, there are also actions towards which the agent has an urge *and* for which he has overriding reasons, for example when a mother has an urge to protect her child.

(6.3) A reason for an action is something that the person can consider in his mind and then act in the light of it. He has a belief that there is this reason, and the content of that belief motivates him. The content of the belief is that the situation requires him to act in this way, or that a certain aspect of the situation speaks in favour of this action, whether he likes it or not. The agent is active, he takes action in response to the reason.

(6.4) By contrast, an urge is something that pushes the agent

towards a certain action. The agent is passive[15], he finds himself being pushed by the urge. No reflection, consideration, or decision is required for the action. The agent need not believe in reasons for the action. While in motivation through reasons a belief or its content motivates the agent, motivation through urges involves no beliefs. The agent is being pushed towards the action. In addition to the urge the agent might have a belief in reasons for the action, but the urge can exist without such beliefs.

(6.5) There are two views about how an urge leads to an action: (A) An urge could be an inclination to do a certain action which involves a certain choice event. Given the presupposition that choice events have no preceding cause, the relation between the feeling of urge and the choice event is not one of event or process causation. Perhaps in a wider sense of 'cause' it can be called a 'cause', but not in the sense of event or process causation. It will be some relation sui generis. (B) An urge could somehow consist in a causal process which the person could stop but which carries on if the person follows the urge. According to this view, there are no choice events in such actions. There is a causal process heading towards, for example, the hand movement. At some stage a feeling of urge arises. Depending on one's view of the nature of the mental, it may be identical with or be connected in some other way to a part of the process.

(6.6) On either view, an urge can have an unconscious event cause. On (B), but not on (A), this cause is also a cause of the action if the person gives in to the urge. That an urge has an unconscious preceding cause does not show that the action is not free. Nobody denies that humans have urges and that these may

[15]That agents are passive with respect to urges and active with respect to reasons has also been brought out by Batthyány 2009, p. 13 and Lowe 2008, ch. 9.

have preceding unconscious causes. An action on an urge is free if the person can resist the urge. On (A), the resisting consists in not bringing about the choice event towards which the urge was directed. On (B), the resisting consists in bringing about a choice event which stops the process which was heading towards the hand movement.

(6.7) Libet himself affirms that the persons in his experiment can resist the urge: 'the existence of a veto possibility is not in doubt.' (1999, p. 52) He presents two arguments for this: First, some test persons 'reported that during some of the trials a recallable conscious urge to act appeared but was aborted or somehow suppressed before any actual movement occurred.' (1985, § 4.1) Second, Libet conducted an experiment (Libet, Wright et al. 1983) where test persons were instructed to plan to move their hand at a certain time but 'to veto the developing intention/preparation to act and to do this about 100 to 200 ms before the prearranged clock time at which they were otherwise supposed to act.' (1985, § 4.1) The vetoing was possible. An RP began 1 second before the pre-set time. At the moment when the person vetoed, it was flattened or reversed. 'The veto findings suggest that preparatory cerebral processes can be blocked consciously just prior to their consummation in actual motor outflow.'

(6.8) Is the vetoing itself a result of a causal process? Libet, rightly in my view, suggests that it is not:

> [T]he conscious veto may *not* require or be the direct result of preceding unconscious processes. The conscious veto is a *control* function, different from simply becoming aware of the wish to act. There is no logical imperative in any mind-brain theory, even identity theory, that requires specific neural activity to precede and determine the nature of a conscious control function. And, there is no experimental evidence against the possibility that the control

process may appear without development by prior unconscious processes. (1999, p. 53)

(6.9) Libet's experiment suggest that the vetoing is not the result of preceding processes, because there is before the vetoing the same RP than in cases without veto. So the RP does not cause the veto. Furthermore, our experience suggests that we sometimes have urges, that we can sometimes resist them, and that some of our actions are not following urges but are initiated by us. If we resist an urge, we experience our vetoing as being our decision without this being the result of causal processes.

(6.10) I conclude that Libet observed just what we should expect given that we have strong libertarian free will. Libet's experiment provides no evidence against SLF will because also on SLF urges may well have preceding unconscious causes. Libet's experiment even provides evidence in favour of SLF because it confirmed that we can resist urges.

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