DID I DO IT? -YEAH, YOU DID!
WITTGENSTEIN & LIBET ON FREE WILL*

René J. Campis C.[1] Carlos M. Muñoz S.[2]

In this paper we analyze Libet's conclusions on «free will» (FW), rejecting his view of the concept and defending a partially aligned view with Wittgenstein's early remarks on FW. First, the concept of Readiness Potential (RP) and Libet's view are presented. Second, we offer an account of Wittgenstein´s point of view. Third, a dual-domain analysis is proposed; finally, we offer our conclusions. This article´s conclusions are part of an ongoing research.

1. LIBET

RP is a concept developed by neuroscience to give an account of intentional action. It is basically 'brain electrical activity found to start increasing about 0,8 seconds before voluntary movement' (*Cf.*: Kornhuber and Deecke 1965, Deecke *et al.* 1969 and Libet *et al.* 1983). Libet involves the concept in an experiment (fig. 1) attempting to establish a temporal distinction between the onset of RP and "conscious wish".

Libet's main presupposition is: "If the moment of conscious intention preceded the onset of the RP, then the concept of conscious free will would be tenable: the early conscious mental state could initiate the subsequent neural preparation of movement." (Haggard & Libet 2001, p. 48). Since motor act is not a direct effect of conscious intention (CInt), but of an indirect one of cerebral potential for unconscious initiation of the action (RP) -he concludes, free will (FW) should be revised.

On Libet's viewpoint, intentional actions begin with RP followed by conscious intention. Libet did not register electrophysiological evidence of brain states associated with the content of W-judgments (verbal reports just at the moment of awareness of a choice –W-j) or, according to his analysis, with the "*first awareness of wish to act*" (Libet, 1999, p. 49) –Libet registered the onset of CInt when W-j's was reported.

Two types of data were used by Libet to arrive to his hypothesis, namely, *introspective* and *electrophysiological*; the former was constituted by W-j and M-judgments (verbal reports just at the moment we think that our motor act begins), and the latter by EEG and EMG evidence (fig. 1). His conclusions both combine and depend on these sources of evidence.

The study of FW from Libet"s perspective requires to track causal estimations between two types of data: 'if the moment of conscious intention followed the onset of the RP, then conscious FW cannot exist: a conscious mental state must be a consequence of brain activity, rather than the cause of it' (Haggard & Libet 2001, p. 48). We reject this approach to the explanation of human intentional actions and FW.

Libet's findings have led to a new model (fig. 2) that emerges from a *causal approach* in opposition to the classic model, where intentional action was supposed to be an indirect effect of CInt.

* We thank Gonzalo Munévar and Peter Hacker.

[1] Universidad del Valle-Universidad del Atlántico. renecampis@gmail.com.

[2] COLCIENCIAS-Universidad del Valle, Grupo Mentis. neurofilosofia1@yahoo.com.mx, www.phimind.blogspot.com.

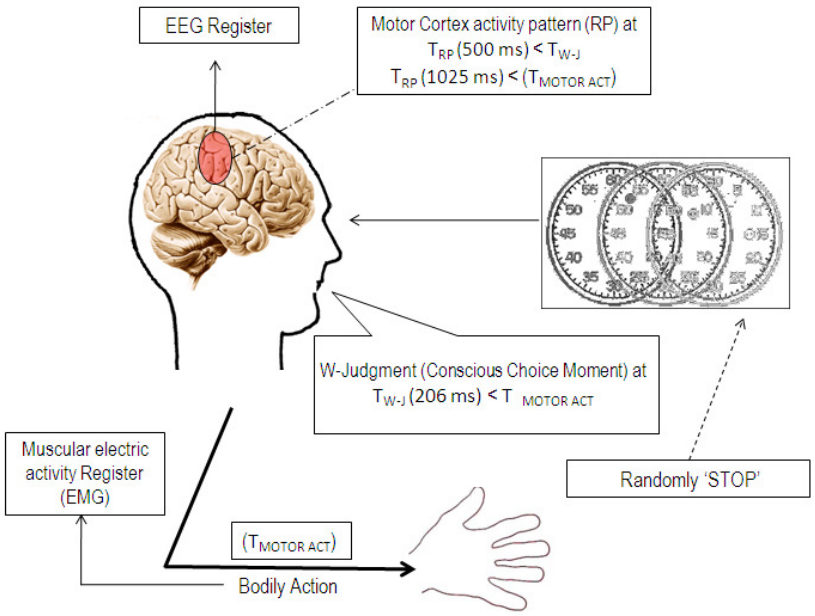

Fig 1. Libet's Experiment for Self -initiated (preplanned) acts (e.g. *vid*.: Libet, 1983)

T_{RP} = RP time, T_{W-J} = W-j time, $T_{MOTOR\ ACT}$ = Motor act time. The experiment consists in: a subject observes a watch which rotate 2.56 s., that subject was instructed to flex his wrist it at a time which himself chosen and look at the position of the clock at the moment (W-j time) in which he became aware of his conscious choice or awareness of intention to flex his wrist. The clock continue to rotate randomly after that motor act and then stopped. Libet established a *direct causal relation* between RP and the motor act, the conclusion he arrives at is that RP precedes temporally to motor act and that there is not a causal relation between our conscious choices and our motor act; therefore, our awareness of intentions appears not to initiate the volitional process. Précis it: free will is an illusion since our motor acts do not biologically depend on our conscious choices.

After Libet's rejection of the classic concept of FW, he posits that there is a "free won´t" (FWN), since an individual can stop the motor act before its completion –overriding the RP and blocking the triggering of its associated action (*Cf*.: Libet 1985 and 2003). He claims that FW still stands since the subject's intentions are involved in his act of FWN as an act of intentional control.

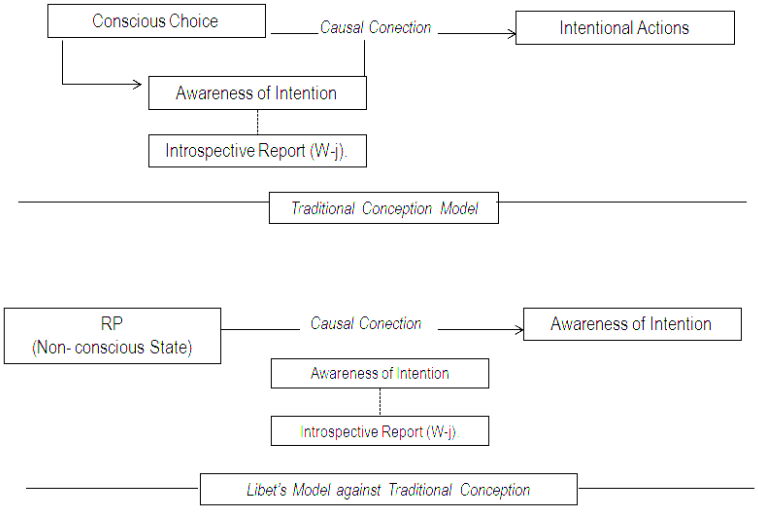

Fig 2. Traditional Conception Model and Libet's New Model

2. WITTGENSTEIN

It is hard to state what Wittgenstein would say about the above mentioned issues –it is difficult enough to summarize what one could consider to be his actual stance on FW. The multiple opinions proposed by him in different occasions in respect to FW make it virtually impossible to draw clear conclusions, but there is some previous work on relarion to this concept (remarkably, Hacker 1996, Vol. 4, part V). What then, comes out clear about will? Our first claim is that Wittgenstein –though being obscure on will himself- wasn´t all that wrong compared to the trap in which Libet falls into by rejecting the classic concept of FW based upon the temporal precedence of RP over the motor act.

Two concepts can be appreciated in his early works: «will as an act» and «will as a content of thought» (i.e. an idea). Such concepts reflect the terms of traditional discussion in philosophy: "The will seems always to have to relate to an idea" (8/11/1916; also 11/6/1916) and "The act of the will is not the cause of the action but is the action itself" (*id.*).

Wittgenstein claims that intention (after e.g., flexing your wrist) is properly the *act of the will* in itself, not merely a propositional attitude[3]. This analysis goes from behavior to thought (not inversely). However, Wittgenstein seems to accept that will begins with our desires and with our thought in general (*Cf.*: 21/7/1916); thus, will is not merely a cognitive condition for intentional actions, but also represents the possibility to assign specific contents to thoughts. In Wittgenstein´s words: "this is clear: [...] One cannot will without acting. If the will has to have an object in the world, the object can be the intended action itself. And the will does have to have an object." (Wittgenstein, 08.11.16). In this way, a human being lacking of will seems impossible (see *Id.*): "The will is an attitude of the subject to the world. The subject is the willing subject." (4/11/1916).

Traditionally, one is a free agent if one has intentional actions -if one's actions depend on one's will. Two concepts are problematic here: 'agent' and 'will'. We reject Libet's conclusions because they imply to mistakenly identify subjective choices as being equal to beliefs; for Libet, beliefs are not the cause of intentional actions, since the actual cause is the RP (a state over which the agent has not conscious control of). We claim that the concept of 'agent' in Libet's study is inadequate. For us, RP could mainly be related to prior fixation of the reference for our intentional actions and 'agent' to the relevant domain in the scrutiny of what we call 'efficient causal agent' (an agent that could be accurately accounted for as an actual causal relation avoiding domain confusions).

3. *RP* REVISITED

3.1. CONTENT APPROACH AND COGNITIVE PATH

FW debate differs from that of free actions (*vid.* Tugendhat 2006). The latter is about conditions of conscious intentions and choices as a particular aspect of volition, while the former is about conditions of intentional actions i.e., actions made and consciously controlled by an agent (someone doing something). We shall focus now on *cognitive* conditions of conscious intentions; in §4 we will focus on *domain* conditions of intentional actions.

In the *square-in-the-mirror* example Wittgenstein posits that FW might be intrinsically related to the focus of attention (*Cf.*: 4/11/1916). Picking potential stimuli intentionally plays a role in the individuation of an act of the will.

[3] For will as a thought, see 14/7/1916.

This conception seems to derive from an *intensionality-centred-perspective* (ICP) for intentional actions –for which "What is the relevant mental content to perform intentional actions?" is the main question. An ICP standpoint leads to a question: «What is the relevant mental content controlled by an agent while performing intentional actions?»

From a naturalized view of cognition, we propose that focusing attention is a neurocognitive-process depending on an agent's intentions. Agents have control of this process; FW depends on our dispositions to selectively choose contents of thought and to fixate intentions. Temporal precedence of RP over motor acts leads not to conclude that RP does not depend on attentional fixation; otherwise, RP is *content-dependent* and, therefore (in optimal conditions –excluding, say, hallucinations), *context-dependent*.

Once we have falsely discarded classic FW, we still would need to explain why we think about our actions as effects of our beliefs (why we fall in the "illusion of FW". See Fig. 4). *The resulting analysis is not that our intentions are completely isolated epiphenomenal facts, but our attentional processes precede our intentions, and plausibly, our RPs*. The contrary would depend on evidence of RP associated with the fixation of attention.

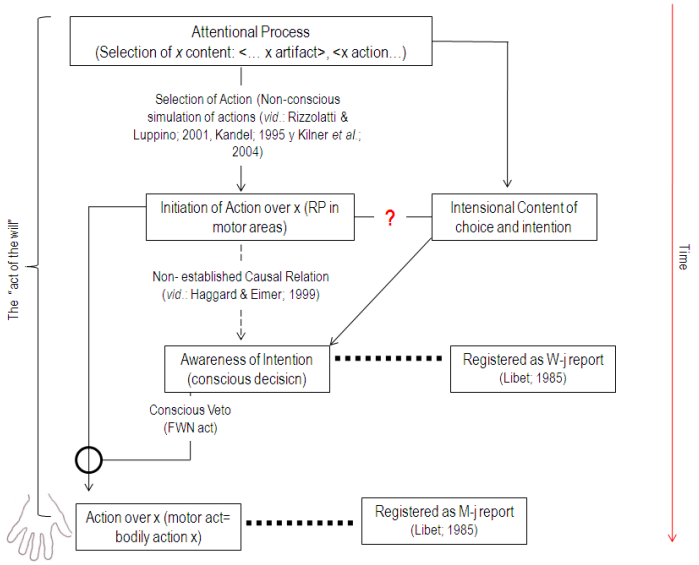

Fig 3. ICP (a content approach –not a causal eclectic approach as Libet's). Attentional content as core factor in fixing the content of choices and intentions.

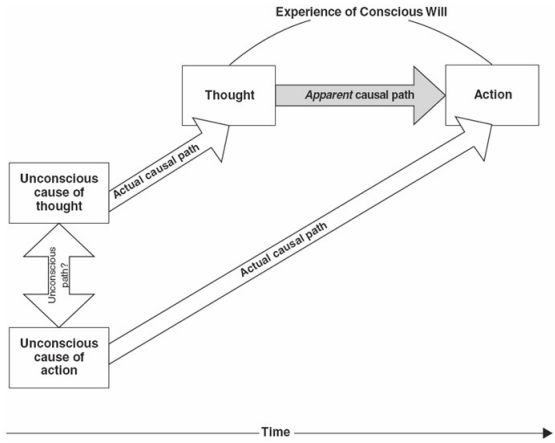

Fig. 4 "The experience of conscious will arises when a person infers an apparent causal path from thought to action. The actual causal paths are not present in the person's consciousness. The thought is caused by unconscious mental events, and the action is caused by unconscious mental events, and these unconscious mental events may also be linked to each other directly or through yet other mental or brain processes. The will is experienced as a result of what is apparent, though, not what is real." (Fig. 3.1 in Wegner 2002. Reproduced under permission of the author).

3.2 OURSELVES: AGENTS

You arrive to your neighbor´s house, knock on the door, he opens and welcomes you. *Who* do you think it was the one that opened the door? His brain? Is your neighbor a brain or a *bunch-of-RPs*? Do you actually greet his brain or, rather, a person? There is an apparent confusion between common understanding of FW and that of neuroscientific approaches.

Paradox: for a radical monist –accepting physical world's causal closure-, brain processes are not unconscious *per se,* but rather are part of a neurobiological flow that generates a physical event called conscious awareness; for a phenomenist or an anti-reductionist, the type of relevant objects that give content to intentional actions are those that you know as a *person* – not as a brain: the door, the doorbell, your friend. Libet's analysis is somewhere between these two domains.

RP is not an agent, but a factor involved in motor acts of an agent. The tension arises when an apparently monist stance is mixed with the domain in which our concept of will makes sense.

An obstacle is the fact of the vagueness of traditional use of concepts such as 'will' and 'wish' and similar in German (for instance, 'wollen', 'möchten') and Spanish ('querer', 'pretender'). Hacker 1996 speaks of "ambiguities that have characterized the efforts of philosophers to illuminate the nature of the will and of human action" and Bennett & Hacker 2005 draw a similar diagnosis in the case of some neuroscientific explanatory efforts.

Hacker also points out that "philosophers have invented a new use for the words 'will', 'want' and 'volition'." Following Wittgenstein: "How is "will" actually used? In philosophy one is unaware of having invented a quite new use of the word, by assimilating its use to that of, e.g., the word "wish". It is interesting that one constructs certain uses of words especially for philosophy, wanting to claim a more elaborated use than they have, for words that seem important to us." (RPP I §51).

To bring meanings of terms from natural language to technical domains is a common habit. Such concepts begin to lose their initial meanings and uses and start to be wrapped by presuppositions of the new domains. Although common, it has not been proven as the best strategy since it seems to be a result of 'traditional anxiety for generality'.

We do not need to track causal connections between a partial state of an agent (e.g. a belief) and his intentional action to destroy the concept of FW; what we need is to undo the causal connection between the agent –be it a whole of neurobiological states or a subject- and his intentional actions. Adopting Libet's approach, the conscious agent seems an epiphenomenal factor reduced to beliefs (registered as W-j) in the causal flow that generates motor act (see Hacker 1996, Id. §2).

There are a lot of processes that biologically compose an agent. The agent does not have control over most of them, but they are causally involved in its actions. One standpoint against FW lies in identifying an agent's state isolated from the rest of the agent's mental states. This is not Libet's path: neither he, nor others have demonstrated yet that RP is isolated from other brain states involving conscious content.

In 1963 Walter turned electric brain states (EBS, perhaps RPs) into agents: he connected EBS recorders to the brains of subjects and these to a slide-viewer. Slides were changed by this efficient, but bizarre-electric-agent. In this experiment the efficient causal agent was not human and the subjects' conscious states seemed to be mere epiphenomenal facts, but we are not epiphenomenal states placed somewhere between electric-agents and actions.

4. CONCLUSIONS

Libet´s conclusions on FW represent an instance of *mereological fallacy* (*vid*. Bennett & Hacker 2005). The notion of agent is not the same in his works as the one relevant in the dispute for FW. Our *(neuro)cognitive conjecture* is that the processes that lead to fixating our attention are prior to the appearance of RP (Kornhuber & Deecke 1965); fixating our attention is an intentional activity, whereas RP is not such by definition –at least, further research is necessary to settle the dispute (e.g., Kilner *et al.* 2004). Reducing conscious intentions to W-j reports is also inappropriate. Subjective conscious choices and intentional *cognitive processes* are not to be reduced to beliefs -though beliefs, intentions and desires have classically been considered as propositional attitudes with the same logical form-. Finally, a causal account based upon tracking temporal precedence between events pertaining to two sources of evidence is wrong; thus, an ICP seems to bring us to prudent conclusions –for empirical reference on a similar direction see Haggard & Eimer 1999.

Again, *we are not epiphenomenal states. Neither Libet, nor others have demonstrated that RP is isolated from other brain states involving conscious content.* Philosophers such as Wittgenstein have contributed with elements that neuroscientists are compelled to consider. Philosophical hypothesis seem to give meta-theoretical feedback to scientific theories of mind and brain, despite the associated despise for them and the frantic and systematic ignorance derived from 'traditional anxiety for generality'.

Bennett, Max, Hacker, Peter 2005 *Philosophical Foundations of Neuroscience*, Blackwell.

Deecke, Lüder, Scheid, P. and Kornhuber, Hans 1969 "Distribution of readiness potential, pre-motion positivity, and motor potential of the human cerebral cortex preceding voluntary finger movements", *Experimental Brain Research* 7, 2, 158-168.

Hacker, Peter 1996c *Wittgenstein: Mind and Will, An Analytical Commentary to Philosophical Investigations* 4, Oxford, Blackwell.

Haggard, Patrick and Eimer, Martin 1999 "On the relation between brain potentials and conscious awareness", *Experimental Brain Research*, 126, 128–133.

Haggard, Patrick and Libet, Benjamin 2001 "Conscious Intention and Brain Activity", *Journal of Consciousness Studies*, 8, # 11, 47-63.

Kandel, Erick Schwartz, James & Jessell, Thomas 1995 *Essentials of Neural Science and Behavior*, Hertfordshire, Prentice Hall.

Kilner James, Vargas, Claudia, Duval, Sylvie, Blakemore, Sarah-Jayne and Sirigu, Angela 2004 "Motor activation prior to observation of a predicted movement", *Nature Neuroscience*, Vol.: 7, # 2, 1299-1301.

Kornhuber, Hans and Deecke, Lüder 1965, "Hirnpotentialänderungen bei Willkürbewegungen und passiven Bewegungen des Menschen: Bereitschaftspotential und Reafferente Potentiale", *Pflügers Archiv*, 284, 1-17.

Libet, Benjamin 1985 "Unconscious cerebral initiative and the role of conscious will in voluntary action", *Behavioral and Brain Sciences*, 8, 529-566.

Libet, Benjamin 1999 "Do We Have FW?", *Journal of Consciousness Studies*, 6, 8- 9, 47-57.

Libet, Benjamin 2003 "Can Conscious Experience Affect Brain Activity", *Journal of Consciousness Studies*, 10, 2, 24-28.

Libet, Benjamin, Gleason, Curtis, Wright Elwood and Dennis Pearl 1983 "Time of conscious intention to act in relation to onset of cerebral activity (readiness potential): The unconscious initiation of a freely voluntary act", *Brain*, 102, 623–42.

Rizzolatti, Giacomo and Luppino, Giuseppe 2001 "The Cortical Motor System", *Neuron* (Sept.), 31, 889-901.

Tugendhat, Ernst 2006 "Libre albedrío y determinismo", *El Hombre y la Máquina*, 26, 80-87.

Wegner, Daniel 2002 *The Illusion of Conscious Will*, Cambridge Mass and London, England, Bradford Books and MIT Press.

Wittgenstein, Ludwig 1916 Notebooks 1914- 1916, *The Collected Works of Wittgenstein*, Wright, George and Anscombe, Gertude, (eds.), Oxford, Basil Blackwell.

Wittgenstein, Ludwig 1980 *Bemerkungen über die Philosophie der Psychologie* (Tss 229, 232, 244-245).