

Commentary
The Volitional Brain

B. Libet, A. Freeman and K. Sutherland (Eds.)
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First published in 1999, as a collection of 18 influential papers from two important issues (No. 8-9) of the *Journal of Consciousness Studies*, and reprinted in 2004, *The Volitional Brain* results a work in what would have been called, at least since 2002, “neuroethics” (see Illes 2006). The neologism “neuroethics” does not appear in the book. As a matter of fact, even though first mentioned by A. Pontius on *Psychological report* in 1993, the term rapidly imposed itself only after a series of meetings in Europe and United States in 2002 producing a general agreement of a new burgeoning disciplinary field on brain research related to ethical and moral issues (just think about the publication of the proceedings *Neuroethics: Mapping the Field* by Dana Foundation in 2002). Given two general approaches to neuroethics (Roskies 2002), the *ethics of neuroscience* and the *neuroscience of ethics*, the book turns out to be a work in the neuroscience of ethics and thus privileges cognitive neuroscience, instead of philosophical bioethics, as a framework for ethical theory. This approach has been recently developed and has produced a number of international works among which this book can be considered a real classic.

In its four sections (Neuroscience, Psychology and Psychiatry, Physics, Philosophy), followed by Comments, the book discusses the relevance of neuroscience research for free will debate pertaining to the different theoretical areas. The various chapters arises as comments of the editor Benjamin Libet’s results in 1985 showing automatic unconscious brain processes, preceding the awareness of a decision, as responsible of human volitional behavior. Although the reference to the unconscious with regard to

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free will could recall the debate about Sigmund Freud's psychic determinism, it should be clear for outsiders that Libet's intent was referring to non-conscious mental events – in other words, completely inaccessible to consciousness – differently from what stated by Freud through the object of psychoanalytic therapy and properly expressed by himself as “sub-conscious” (Ostrowick 2007). Thus, according to neuroscientific findings, the problem of free will becomes even more worrying. Are we free? Are we the authors of our volition? The way this book faces the subject is surely not a traditional one.

Traditionally, free will has been considered a problem of over-causation between human volitional causation and deterministic one (that of God foreknowledge or physical laws). The spectrum of traditional responses has framed the debate concerning the relationships between free will and determinism. In other words, whether free will and determinism were mutually exclusive opposite (incompatibilism) or not (compatibilism). Incompatibilism provides solutions among libertarianism (indeterminism), hard determinism (free will illusion) or skepticism (randomness). The book covers all positions well.

The aim of the book is to highlight Libet's findings thanks to more recent scanning techniques as PET and fMRI (see Chs. 1, 2, 3). Despite what Libet's results might appear at a first sight, the book maintains an equilibrium between the compatibilist alternatives (e.g., Gomes, Ch. 5; Clark, Ch. 18) and Libet's work (Ch. 4): it just lightens the idea of free will (as a consciousness veto over volitional activity) but does not jettison it. Contrary to all expectations for a neuroethical text, even anti-materialistic positions (see Chs. 17, 13, 8, 11) or suggestions from Eastern cultures and meditation traditions (especially Buddhism, see Chs. 8, 6, 7, 14) are presented. These two groups of articles, which respectively prefer non-physical mental forces as a solution even in clinical contexts (see Schwarz, Ch. 8, on OCD) or offer an “ambiguous phenomenology” (Libet *et al.*, Introduction, p. XIX), are a fault for a book that pretends to be *neuroscientific*. Moreover, the discussion on mind-body relation interestingly involves constraints coming from physics: laws of nature conception (Hodgson, Ch. 12), quantum theory (Stapp, Ch. 9), conservation law (Mohrhoff, Ch. 10), time (Lanier, Ch. 15). And finally it turns to law and compares free will to the problem of the power and penal responsibility (Chs. 16, 17).

The non-traditional way according to which the book presents the subject is referring to the reducibility of folk psychological notion of volition (and

choice) to brain processes. Admittedly free will has two components to be showed. Obviously free will is something dealing with freedom and will. So free will contains a metaphysical component (freedom) and a psychological one (will). As freedom has been traditionally contrasted by referring to physical laws (scientific determinism) and the mental event of volition to neurological causation (mind-brain problem), free will can be regarded as a question of reducibility of higher-level causal processes and explanations to lower-level ones. Accordingly, freedom and volition are two common sense intuitive notions related to the scientific conception of the world.

Nevertheless the traditional philosophical debate on free will has attributed a low value to the volitional component, so that the entry “free will” has been explained as «the conventional name of a topic that is best discussed without reference to the will» (Strawson 1998, p. 743). What I am going to discuss here is whether such a book, which deals with the *volitional brain* in order to propose what explicitly declared in the subtitle as a “neuroscience of free will”, can genuinely represents a contribution to the free will debate. Or rather, whether (1) investigating volition is relevant to free will, and (2) neuroscientific findings can challenge or inform our notion of free will (see Roskies 2006).

First of all, there are three kinds of freedom: social freedom, which is conceived as a relation between an agent, an action and a power and sounds like “I’m free to do X with regard to P if P cannot oblige me to do it or prevent me from doing it”; freedom of action, which is a relation between an agent and an action in the sense that “I’m free to do X if I am able or I have a chance to do it”; freedom of will, which made the philosopher Jean-Paul Sartre (1943) seeing humans as “condemned to be free” and corresponds to something like “I could have acted in other ways, as I act on the basis of reasons, that is, I am the author of my decision”. Only the third kind of freedom pertains to free will as the will is the entity that needs to be characterized as free. Questions at the end of the second paragraph can be hence reformulated as following: What is it to act (to choose) freely? What is it to be morally responsible for one’s actions (or choices)?

It should be mentioned that a psychological conception of free will as self-determination is the basis of penal law theory. The core of imputability in Western penal codes is the volitional character of a criminal action, independently from how free will is intended as a metaphysical notion, namely

its reducibility or not to physical causation. Therefore, volition is at least an important component in the way we are ordinarily involved in the matter.

Nevertheless there is an argument according to which neuroscience is not in a position to undermine our intuitive notion of free will, and consequently that of moral (and then penal) responsibility. The argument focuses on the fact that problems on these notions exist independently of neuroscientific advances and depend on the existence of external forces such as God or nature (Roskies 2006). Neuroscientific inquiry is a matter of discovering mechanisms underlying cognitive phenomena (Bechtel 2008 and Craver 2007), while the problem of free will is a metaphysical problem that regards the deterministic (or indeterministic) nature of the universe. It is true that a naturalistic investigation of the wider problem concerns more physics than neuroscience. But intuitive concern on free will maintains that human agency requires freedom whereas mechanisms behave deterministically and that is why volitional brain mechanisms have been recently called into question. Regardless whether or not the universe is deterministic, however, neuroscience aims to show at best whether the brain is. So even if this work cannot give an answer to the wider metaphysical problem, it is still an important direction of inquiry.

Contrary to what people think, mechanism and determinism are not the same thing. A view of ourselves as biological mechanisms should not necessarily undermine our freedom. There are various ways to escape the problem. For example, recent neuroscientific accounts claim that «freedom is not freedom from causation, but the freedom of a system that is directing its own engagement within its environment» (Bechtel and Abrahamsen 2007, p. 63).

What Libet's results showed is that people are not actually *conscious* of their decisions. So these experiments focus on the relation between consciousness and free action within the brain. As a matter of fact we think of free will as *self's* ability to choose whether or not to act. There are arguments against this view and against the link between awareness and decision (for a discussion, see Mele 2005). Apart from the metaphysical framework we choose, our intuitive notion of free will regards our *feeling* of control on our decisions and actions, not the control itself. And this accounts for neuroscientific inquiry. For example, literatures has presented contradictory experiments showing folk conception on free will both compatibilist and incompatibilist depending on the circumstances (Roskies and Nichols 2008).

Therefore even if cognitive neuroscience cannot give an answer to the question of freedom with regard to determinism, it can evidence other factors, which may inform our evaluations on freedom and responsibility. These factors are features of the functioning of mechanisms of choice and decision-making underlying folk psychological processes we refer to when we attribute freedom or responsibility to agents. Independently from the deterministic or stochastic nature of these mechanisms, their understanding corresponds to such essential attribution.

We usually count on our intuition of free will, we make use of it in our ordinary lives and in legal contexts. Recent titles testify that the interest in free will has come back again thanks to neuroscientific discussions introduced in books like this. Even though each paper should be judged separately from the others and some of them might result worthless if we refer to present debate, this text should be read as a precursor. It is a topical work facing the problem of a neuroscience of free will.

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