

Review of Distributed Cognition and the Will: Individual Volition and Social Context

Carlo Martini
PhD Candidate
Tilburg Center for Logic and Philosophy of Science
Dante Building Rm. D241
PO Box 90153
5000 LE Tilburg THE NETHERLANDS
c.martini@uvt.nl
<http://www.martincarlo.net>

Distributed Cognition and the Will: Individual Volition and Social Context

Don Ross, David Spurrett, Harold Kincaid & G. Lynn Stephens (eds.)

Cambridge, MA: MIT Press, 2007

368 pp., ISBN 0-262-18261-0 (hbk) \$70.00

Distributed Cognition and the Will is a very ambitious collection of 13 essays (plus the introduction) exploring different facets of the relation between an “old problem” (the will) and a relatively recent field of studies (distributed cognition theories). As Don Ross, one of the editors, points out in the very opening lines of the introduction, if there were a ranking of the major problems that have been discussed in roughly two and a half millennia of philosophical enquiry, the problem of the will would figure among the top hits. But recent studies and empirical work on cognition and behavioral sciences come to conclusions in stark contrast with the traditional notions of agency, free will and will-causes-action accounts. One of the authors’ opening claims illustrates the general spirit of the collection: P. S. Davies writes that “the traditional notions of agency are dead or dying and their replacements are yet to be born or yet to reach maturity” (p. 39). These 13 essays are an interdisciplinary attempt to contribute to a better understanding of the flaws embedded in the classical conceptions of will and agency and to put forward some proposals for new or revised ones.

Apart from some introductory remarks by Ross, there is little historical investigation on the classical viewpoints on the problem of the will and the focus is rather on the flaws that seem to have accompanied discourses on the problem before the present day. One of these flaws is that the will has for a long time been treated much as a black box in which to put all sources of controlled behavior or even all sources of action, tout court. The will is the source and cause of agential control on behavior, and this thesis seems to have two very strong justificatory stands that are probably the hardest to argue against. The first of them is the idea that banishing the concept of free will as an imaginary concept would amount to opening the way to Nietzschean moral views according to which, by the fact that no one is an actor/agent of their own actions, no one can be held responsible for such actions. The second observation amounts to the very strong intuition that I am in control of my action when I decide, for example to raise my arm: as Samuel Johnson puts it, ‘I know we’re free and there’s the end on’t’ (quoted p. 63).

As the first problem is concerned, we find ourselves in a strange position in which many scientific facts seem to point against the idea that we are in control of our behavior, whereas in almost all areas of the social life we keep using concepts of personhood, responsibility, and so on which play a major role in everyday legal, economical, medical, and many other practices. Several of the pieces in the collection try to reconcile these two horns of a ‘practical dilemma’ that the philosophical inquiry seems to be facing when looking at the different ways in which the concept of will (and its relatives) are used. Tamler Sommers argues that it is because we have the illusion of free will that we attribute robust

moral responsibility to ourselves, whereas previous authors—such as Spinoza and Darwin—held the reverse claim that it is because we have the illusion of being free agents that we attribute moral responsibility to ourselves. By turning over the position, Sommers brings into the discourse the Strawsonian concept REACTIVE ATTITUDES: such attitudes, like resentment and guilt, are in this new framework seen as primitives of the human species. Reactive attitudes are taken to be a product of evolution with the purpose of regulating behavior among humans. In fact, studies with certain types of primates seem to show that they are present also in other animal communities. However, Sommers takes a pluralist stand on the reason why we possess such reactive attitudes; surely evolution can be one explanation but it need not be the only one. Other explanations (for instance Ross' idea of selves as stabilizing devices for social dynamics) are also plausible and probably just complementary to the evolutionary explanation of reactive attitudes.

A second and more detailed account on the evolution of volition is given by Wayne Christensen. In his paper, Christensen presents a high-order control model for the explanation of cognitive processes as opposed to the less recent simple distributed cognition model. The latter allegedly poses a serious threat to the idea that volition can start at a precise point in time and space in the mental process: if cognition is 'purely distributed', the idea of the centrality of volition can only be interpreted as an illusionary byproduct of the interaction between many secondary cognitive systems that control our behavior. On the other hand, the high-order control model allows for a hierarchy of cognitive systems in which the ones (or the one) at the top have a wider scope of control and are activated mostly when conflict arises among sub-systems. In the evolutionary process that brought elementary forms of life to more complex organisms, the motor of evolution was initially 'articulation pressure', namely the need to colonize new and more challenging environments, for instance the passage from aquatic life-forms to amphibious and terrestrial organisms. But the development of complex multiple cognitive systems posed a problem of coordination among sub-centers of behavioral control. This problem (integration pressure) spurred the development of hierarchical control systems in which the different levels play different roles, the top ones being mainly dedicated to control and coordination of the sub-systems. Christensen argues that high-order control models fit better with the idea of volition than simple distributed models. In this framework the will can be seen as a control unit for behavior, thus explaining away the threat that the idea of distributed cognition seems to pose to such unity.

Miriam Thalos expresses similar ideas with the distinction between systems that rank and systems that are ranked over and a different-but-related proposal is provided by Andy Clark, with the notion of ecological control systems. The goals that ecological control systems have to attain are not achieved by exercise of control of each single step of the action but by distributing sub-tasks of the general task to lower-level control systems. Mechanisms of self-monitoring and control theory are also defended in the contribution of Jeffrey B. Vancouver's and Tadeusz Zawidzki's and in Dan Lloyd's paper, the formers with a defense from the point of view of applied psychology and the latter through a discussion of schizophrenic mental disorders.

But what exactly is, in general, the challenge that behavioral and cognitive sciences pose to classical views on free will? Almost every article spells out some of the facets of this challenge. Daniel M. Wegner and Betsy Sparrow present empirical work aimed at showing that control of one's own actions is very much dependent on the environment (the type of social dynamics we are in) rather than by conscious willing. Philip Pettit describes other laboratory experiments, in which the activity of the brain is monitored to show that conscious awareness comes only after the action is physically triggered. Pettit concludes that being a willing being cannot amount to being in control of the initiation of an action and suggests that agency should be seen as the possession of the relevant features (a 'suitable

constitution') that belong to agent-controlled systems: 'I perceive an action as conforming to my perceived will, so far as I perform it in the presence of a capacity for agential agent-control, and not the other way around' (p. 89). Similarly, against the claim that will and agency control is an omnipresent device that constantly monitors and regulate our actions, Lawrence Lengbeyer shows that conscious volition is neither an absolute nor a constant mechanism in our going about our everyday businesses. We have moments in which the automatisms that guide our actions can be overridden, but freedom is more the exception than the norm.

In general, the picture of the self that comes out of the previously mentioned papers is what Daniel Dennett, in his contribution to the collection, calls an 'organ of unification'; a communication control system produced by an evolutionary process that eliminated lineages in which conflicts arising among sub-systems can threaten survival and reproductive success. Such organs mark the difference between automata and human beings insofar as they are able to override automatic behavior-control systems in view of unexpected and unordinary tasks. The evolution of communication and its crucial role in human activity is supported by observing how quickly human subjects can be instructed into a new task, whereas animals need numerous training trials before being able to perform a certain behavior.

As Thalos writes, 'The work of agency is thus the work of controlling subordinates' (p. 136); this picture, however, also calls for a revision of the traditional concepts of causation that is often associated with discourse on volition (the will as cause of action) and Thalos' article provides an articulation of what types of new concepts could replace causation-oriented accounts. The general paradigm in this line of research seems to be that we need to start taking pieces (explanations) out of that black box that the will has long been treated as. In this task a naturalistic approach, by reference to empirical sciences, is an essential aid.

Some final considerations must go to Ross' & George Ainslie's contributions. The latter takes a step back from the recourse to empirical experiments for supporting philosophical enquiry and argues that there are questions to which laboratory experiments cannot answer. In particular, he claims, empirical experiments cannot support the view that the will acts so to maintain 'resolution against short-sighted impulses'. In substitution for such experiments Ainslie presents four thought-experiments that are aimed at supporting the view of the role of willpower as a stabilization mechanism that permits long-run resolutions of game-theoretical problems.

Finally, Ross' contribution to the collection is a brief overview of a much broader project that has occupied the author in several articles and books. Ross's paper aims at providing some conciliatory remarks for bridging the gap between neuroeconomics and classical economic models. Traditional economics (or at least the naive picture of it) has held that agents are to be identified with individuals, but both on the micro scale and on the macro scale such a paradigm has been demolished. Neuroeconomics has shown that individuals do not constitute agents in the economical sense, i.e., that is they cannot be modeled into a reasonably small set of consistency axioms. On the other hand, studies in macro-scale social dynamics has shown that the group often comes as relevantly prior to the individual in the definition of preference sets or other relevant economic properties. Ross argues that classical economic theory is not committed to such a narrow-sighted view of agents and that discoveries from both the macro-level side and the micro-level one can be accommodated by classical economic theory. With this background in mind, selves are interpreted as "narrated structures" that are able to transform real human beings (subject to both micro-scale neurological predeterminations and macro-scale social dynamics) into economical agents, possessing the requirements of consistency that they need to have in order to be treated in mathematical models. What Ross means by saying that individuals are

‘narrated structure’ is that individuals have a normative urge (and an evolutionary incentive) to stabilize into economically coherent selves for purposes of engaging into collective actions. The brain is not identical with the self, but human beings have a comparative advantage in regulating themselves into predictable patterns of behavior, on pain of miscoordination and conflict if they failed to do so. In this sense, selves are a form of private (in the strong sense) institution for the selection of advantageous game theoretical scenarios. Such institutions have the same economical function of public institutions, for instance, in the formation of games appropriate to avoid prisoner's dilemma-like outcomes.

The idea we get from this collection of essays is that the scientific progress in understanding the behavioral processes in relation to the mind/brain is pulling out more and more ex-mysteries from the black box that has been, for a long time of philosophical enquiry, the will. However, conservative sides (mentioned by Davies and others in the collection) are flanking the sides to try to defend the traditional view and the question arises as: is there something that cannot be pulled out from the magic hat and that will always be just what we have been calling ‘free will’? Or in other words, is there something that is *really* the will, *despite* the numerous discoveries that many things are not it?

In contrast to the former stands, the leitmotiv of this collection seems to be not to protect the idea of free will from the dangers of scientific discoveries in order to preserve something in the black box but rather to just throw away the idea of a box altogether. What legal theorists, economists, physicians, etc. have been using for centuries by using concepts such as will, volition, self and others were undetermined concepts, probably never properly understood in certain important respects. The question then, is whether science can now help us disentangle those complexities and cast new light on those concepts.