for cooking by a cook, but not by someone who has never even boiled water.

The preceding examples highlight the fact that our interactions with the world are already suffused with meaning and significance. More importantly, they also underline the manifest fact that the manner in which situations will be perceived affects the way in which we will act. Stated otherwise: The action possibilities that situations afford us are a function of how such situations are perceived by us. A hacker is both freer and more restrained to act than someone who knows very little about computer programming. Both have the freedom to turn on a computer, but only the former has the freedom to uncover security vulnerabilities-a freedom that depends upon conformity to certain rules (for more on this point see Dahlstrom 2007). Or consider someone who can read. Reading radically transforms many objects in her environment and her world is a world rich of possible actions. Books, for instance, are now readable and political leaflets or flyers are infuriating. At the same time however, her choices become, in an important sense, more restricted: She does not open emergency doors, she does not drive into one-way roads, and she pays attention to the gap when stepping out of the subway. Such examples of human conduct call for an explanation.

It seems clear that there is a type of freedom—one that is central to our human condition—that is premised on the existence and cultivation of certain abilities. Such abilities are neither clearly innate nor easily explained as the products of evolutionary forces. But if that is the case, then in what way can an evolutionary account help us understand the freedom that results from such abilities? In other words, how could an evolutionary account explain the sense in which agents are free (or constrained) in various thoroughly social and practical situations? Recall that Banja understands freedom to be "a capacity to intend and execute behavior(s) that the organism understands to be in his or her best interests" (7). But the organism's interests are not only biological interests. Banja thus owes us a story as to how his evolutionary understanding of freedom accounts for all the choices that are made available to us. As it stands, Banja's account of freedom appears to be incomplete.

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# Some Remarks Concerning Free Will and Evolutionary Theory

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Since its origins in Darwin, evolutionary theory has often been considered a revolutionary theory. Besides profoundly altering the biological conception of humankind and its place within the natural order, it has been repeatedly applied to philosophical topics, including truth and knowledge (evolutionary epistemology), as well as right and wrong (evolutionary ethics). Presumably, it was only a matter of time until it was utilized in philosophical debates concerning free will, too.

Such an approach has now been suggested by John Banja (2015). Banja challenges philosophical accounts of free will, accusing them of being metaphysically overloaded by clinging to the principle of alternate possibilities (in his wording the "CHACO-UIC" formulation). Instead, Banja claims, free will should be understood in evolutionary terms, as an organism's capacity for environmental adjustments (or "adaptive choices").

Unfortunately, Banja's account suffers from essential shortcomings. First, his portrayal of the philosophical debate on free will is faulty. Second, his own proposal misses the point of discussion.

## PHILOSOPHICAL POSITIONS

Philosophical accounts of free will attempt to clarify to what extent and in what sense human decisions and

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actions may be regarded as free against the background of a causally structured natural world. In addressing this fundamental problem, philosophy has developed a multitude of approaches that can be divided into the following groups.

Incompatibilists hold that freedom and causality cannot be reconciled. This opens up two options. Either one accepts that the world is universally causal and denies the possibility of free will ("hard determinism"), or one insists on free will and challenges the idea of a causally closed world ("libertarianism"). Libertarianism may rely on a Cartesian dualism of res extensa and res cogitans, holding that the latter is exempt from physical causation while itself influencing the physical realm (Eccles 1994). Or it may assume some special kind of agent causation besides common event causation, enabling the agent to start a new cause-effect line without his action being the effect of any antecedent cause (Chisholm 1964). Libertarian approaches are rightfully deemed metaphysical. It should be noted, however, that the idea of an all-embracing causal structure determining the complete natural order cannot be supported by empirical evidence and thus contains some speculative element, too.

Compatibilists, by contrast, argue that a proper conception of free will is reconcilable with the ubiquitous presence of causal processes. Again, two main paths can be taken. Some define freedom as an appropriate relationship between higher-order desires and lower-order desires (Frankfurt 1971). Others refer to the impact of reasons in human decisions and actions and underline the autarchy of the space of reasons as opposed to the space of causes (Sellars 1997). Compatibilist positions can hardly be reproached for being overly speculative. In particular, they typically dismiss the principle of alternate possibilities, that is, the idea that freedom requires an agent to be able to do otherwise under identical conditions. Acting under identical conditions, an agent's volitional structure as well as her relevant reasons should remain constant, so that identical decisions and actions are to be expected. Exactly such constancy, rather than indeterminacy or unpredictability, is regarded as the characteristic attribute of compatibilist freedom.

### **BANJA'S ACCOUNT**

It is striking that John Banja deviates considerably from this standard representation of the free will debate. In particular, he claims that compatibilists as well as incompatibilists are both libertarian, ostensibly advocating the principle of alternate possibilities. This claim is essential to Banja's argument as it enables him to denounce philosophical discussions as stuck in "philosophical speculation." However, it is deeply mistaken. Compatibilist approaches, as already outlined, are antilibertarian by their very definition and usually reject the principle of alternate possibilities. Furthermore, the majority of modern philosophers, as well as important classical proponents such as Kant, advocate a compatibilist understanding of free will. Banja's accusation that the philosophical tradition hopes for "gaps and discontinuities in causation that might save free will" (7) is thus largely unfounded (one explanation for this might be that Banja, although citing a list of important figures in the free will debate, makes very few direct references to any of their works, instead relying heavily on unscholarly sources such as "The Information Philosopher").

Banja's article contains further mistaken delineations. He identifies "determinism" with a "fatalistic" outlook on existence. But again, these two are clearly distinct. Determinism asserts that the human will is subject to causal determination, whereas fatalism claims that no matter what the human will chooses, fate will ensure that the same course of events obtains.

Banja also advances strange philosophical connotations. He declares Derek Parfit's use of thought experiments as an instance of "academic philosophy's ideologically entrenched resistance to a naturalist or bioevolutionary way of thinking," claiming that thought experiments are "temperamentally aligned with the CHACO-UIC formulation"(5). It is hard to see any relevant connection here, particularly when considering the widespread use of thought experiments in modern physics. By the way, anyone acquainted with Parfit's work would agree that he is not tending toward any kind of metaphysical speculation (again, as Banja makes no direct reference to Parfit's writings, it is difficult to determine the extent to which he has engaged with them).

Generally, Banja shows little reliable understanding of fundamental philosophical concepts. For instance, he confuses "transcendental" and "transcendent." There is no room here to explain the difference between the two. But sadly, Banja's ignorance leads him to sweeping formulations like "Cartesians, Husserlians, spiritualists, mystics, and the like" (9) that serve him to nourish his prejudices against "philosophers" but that do not survive any closer scrutiny.

#### **BANJA'S PROPOSAL**

Banja's own proposal for redefining freedom of the will bears scant relation to the problem that is usually addressed under this heading. He declares freedom to denote an organism's capacity "to intend and execute behavior(s)" that will serve his or her "best interest" (7). In this way, freedom of the will (being free in making one's decisions) is eventually reduced to freedom of action (being free to follow one's decisions). In fact, Banja finally suggests dismissing the term "free will" altogether and substituting for it "freedom from internal or external constraints" (8).

Freedom of action is an important idea, and it is certainly not compromised by causal structures. But it misses the point of the debate and thus provides no answer to its questions. Banja does not offer an evolutionary perspective on free will. He simply replaces it with something else. However, the distinction between incompatibilism and compatibilism covers all possible positions. So even Banja, although he essentially offers an account of freedom of action, must make his choice whenever he touches upon one of the issues that freedom of the will is actually concerned with. As he wants to reconcile this freedom with "causality and determinism," he is clearly a compatibilist. Regarding human behavior against a background of "reasons [!], incentives, desires [!], anxieties, fears, and interests" (7) he even reinvents some of the standard repertoire that compatibilist philosophers have been using all the time.

At this point Banja's argument is on the brink of collapse. Instead of offering an alternative approach, his evolutionary framework simply restates common compatibilist accounts of free will. So what can he do to save the originality of his contribution? Nothing but reiterating his mistaken claim that "the philosophical tradition's compatibilist versions" of free will rely "on contracausal willing" (8)—exactly what compatibilist accounts, by their very definition, do not do.

### CONCLUSION

Empirical findings can make important contributions to philosophical debates. But this presupposes good knowledge and an unbiased account of relevant discussions. It is not enough to draw on lay sources and to ridicule whole academic branches as prone to metaphysical speculation. Interdisciplinary work is much harder.

The extent to which insights from evolutionary theory can contribute to the philosophical debate on free will is uncertain. But if one decides to pursue this idea, it seems advisable to do so with an eye toward evolutionary biology's more detailed accounts of different life forms. It is not promising to define freedom in a way that covers all organisms "whether they are slime molds or humans" (7). And it is insufficient to add some higher faculties, such as "information-processing skills," that remain within the perspective of adapting to external challenges. Rather, an evolutionary perspective should draw our attention to qualitative particularities of the human life form. As a start, it might underline that human beings actually do not simply adapt to their environment but change their environment in ways that correspond to their desires and reasons. This is far from a substantial account of free will. But it brings some issues to the fore that might indeed be central to the concept.

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# The Evolutionary Perspective on Free Will Might Be Mechanistic But Not Deterministic

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Instead of conceptualizing free will as the ability to "do otherwise," the core of Banja's (2015) article is the idea that evolution has shaped intentionality so as to restrict the organism's choices to those enabling it to follow rules, exert self-control, make plans, and desist from irrational and random behavior. Banja writes that "at any moment of decisive choosing it is indeed true that I choose in a way such that I 'cannot do otherwise'" (6). However, this circumstance might be explained by the fact that neural processing is largely inaccessible to conscious awareness; thus, the organism only registers the response to the choice situation resulting from the neural processes that "win out" over competing activation patterns. Banja's point relies on redefining "freedom" to denote "a capacity to intend and execute behaviour(s) that the organism understands to be in his or her best interests" (7).

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