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## Further Thoughts on Counterfactuals, Compatibilism, Conceptual Mismatches, and Choices: Response to Commentaries

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The grand question of whether people have free will turns out to be not one but several different questions. We have been challenged and excited to work on them, and we are honored to benefit from the commentaries by such distinguished thinkers as Mele, Holton, and Nahmias. In this brief article we say how we have benefited from their comments.

### Mismatched Conceptions and Misconceptions

One key point that came up in all the commentaries was that there is a mismatch between what skeptical scientists mean by free will and what the general public understands. Nahmias articulated this most forcefully. Scientists may say that free will is an illusion, and by that they mean that science has no place for supernatural

entities that mysteriously intervene in the flow of events to override physical causality and natural law. But when many laypersons hear that scientists deem free will an illusion, they think that their powers of rational choice and self-control have been discredited.

Laypersons in our experiments respond to critiques of free will by cheating, stealing, aggressing, and doing other undesirable things. Surely the scientists and philosophers who express skepticism about free will are not intending to promote such behaviors. They do not even mean that “you do not have free will, so you might as well steal money and hurt people, and if you do those things you couldn’t really help it anyhow.”

Possibly one interesting direction for future research would be to refine the laboratory manipulations to make explicit the distinctions that Mele and Nahmias have emphasized. One group might hear skepticism about having libertarian powers and supernatural agency. That is, they might be told it is false to think that two different outcomes could ensue from exactly the same person with the same thoughts and feelings in the same circumstances. Or they might be told that they do not have anything like an immaterial soul or other faculty that intervenes in their brains to alter behavior. In contrast, a second group might hear skepticism of their compatibilist powers: that rationality and self-control are largely illusory. The latter message might have a bigger impact on antisocial behavior than the former.

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## Does Determinism Matter?

In his commentary, Mele says he remains agnostic as to whether compatibilism is true or false. And with good reason: Most scientists and philosophers do not really believe determinism is viable. The strongest contrary evidence involves quantum indeterminacy. But as both Mele and Holton point out, quantum indeterminacy is not really relevant to the question of free will. Some occasional erratic veerings by subatomic particles do not really provide much of a conceptual basis for free will or free action in any useful, meaningful sense.

We agree. But why do people continue to worry about whether free will is compatible with determinism, if determinism is false? The answer is because at the macro level, things still might be strictly causal and fully determined, or close enough that it might as well be. (Quantum indeterminacy does entail that once in a very great while even at the macro level something indeterminate will happen. But those events will be so rare as not to be worth considering, and certainly rare enough not to help theory of free will.)

Are most laypersons compatibilists? At first blush, no. The idea that everything is caused is initially taken by most persons to rule out free will. We also suspect that many scientists' statements on the matter stem from that same simple assumption. But as all three commentators suggest, in reality causation can be reconciled with free action, and most people do believe in both free, responsible action and that everything has a cause, so at some level they are compatibilists. Indeed, it is precisely this fuzziness—this sense of basic incompatibilism sitting atop a trove of beliefs in both free action and causality—that makes our manipulations work. If people had thought everything through and committed to a rigorous position, they would be less influenced by our manipulation. We doubt, for example, that any veteran philosopher would change his or her behavior after sitting through our manipulation of belief for or against free will.

One consequence of this exchange and related discussions is that we ourselves have become more congenial to compatibilism. Mele was exactly right that several of our arguments have contained at least an undercurrent of incompatibilism. To us, compatibilism has long seemed a gutless, namby-pamby, and

flimsy attempt to have one's cake and eat it too. Was it possible that the agent could have done something different, or was it not? How can the answer be both? But perhaps this characterization was unfair. Moreover, as all three commentators have intimated, our research findings will appeal to compatibilists more than libertarians.

If we were skeptical of compatibilism, it was due in part to the assumption that the theory of free action would have to be gutted to fit it into the straitjacket of determinism. Instead, though, perhaps determinism can be softened up to accommodate genuinely free action? The next section will explore that possibility.

## Finding the Basis of Multiple Possibilities

One line of thought that all of this prompts is whether deterministic causation really rules out the multiplicity of alternative possibilities in the future. In other words, is the future just as fixed as the past? Are the causal processes that have brought the universe this far sufficiently rigid that the future is inevitable?

The view of free will that is hardest for many scientists to accept is what Mele's commentary describes as the pure libertarian view. It holds that given the present state of the universe down to every precise detail, what happens next is still undecided. According to that view, there are at least two things that a person can do in a given situation, even with everything about the person and the situation being exactly as it is.

In that view, free will contains the source of indeterminacy. Two different futures can follow from one present. The causal sequence of the past has led to a precise situation, including all the psychological properties of the agent, and the agent's free will can produce two (or more) different futures out of this same present.

Thinking in that style introduces a variety of problems. Instead, perhaps it would be useful to explore ways that a deterministic account of the external world can still create multiple possibilities. In that style, the purpose of the agent is to reduce that multiplicity so as to bring about a desirable result.

Indeed, a psychological account of human behavior would be almost incomprehensible without the reality of multiple possibilities. Choice, opportunity, threat, preference, and many other indispensable parts

of the human experience are all based on the possibility that something might happen and might not happen—that some event is possible but not inevitable. Indeed, a recent review of empirical findings on how consciousness affects behavior identified as a common theme that consciousness often has its effects in precisely the sort of circumstances that have multiple possible outcomes, such as in overriding one response in favor of another, negotiation, mental practice, and counterfactual thinking [1]. In that view, the purpose of the conscious human mind is not so much to create indeterminacy but to deal with it—that is, to sway the course of events so that the best of several possible outcomes occurs.

The challenge for this approach is to explain how causal processes can produce a multiplicity of possible outcomes. Such a task is clearly beyond the scope of this paper. Some possible lines of analysis include the following. First, the confluence of separate, independent causal chains creates an element of randomness as to where they are when they intersect. Second, insofar as symbolism is not a physical fact yet can ultimately cause physical objects to be moved, the influence of symbolic meaning on human action may produce results that are not fully explicable in terms of natural law and physical causation. Third, instead of thinking of infinite causal chains that stretch from the Big Bang to the end of time, it may be useful to think of discrete causal sequences that start and stop. The result of a causal event may be not another event but rather a situation that contains multiple possibilities. Fourth, if people change their behavior to avoid a particular, imminent event, then perhaps that implies it was imminent but not inevitable.

### **Metaphysics and Motivation in Counterfactual Thinking**

All three commentators took us to task for our somewhat offhand interpretation of our findings regarding counterfactual thinking. Our study found that manipulating belief in free will altered how many responses people generated to the question of what they might have done differently on an earlier occasion from their lives during which they hurt someone. Increasing belief in free will led to an increase in the number of counterfactuals. Undermining belief in free will produced a tendency to

generate fewer responses, though that was not significantly different from the baseline.

We said that determinists believe that what happened was the only thing that could have happened, which rules out counterfactuals. All three commentators objected, and we concede the point. A strict determinist might still think that had circumstances been different, the result might have been different. One might have acted differently and produced a different result.

To be sure, it is not easy for a determinist to allow that circumstances really could have been different. Because the chains of causation are fixed (to a determinist), changing any one thing would mean that prior events would have had to be different too, and events prior to that, and so forth all the way back to the origin of the universe. Still, a determinist can legitimately entertain such thoughts.

In the philosophically untutored mind, which is to say according to most modern American citizens (and most research participants), determinism is easily confused with fatalism. Holton's commentary was especially lucid and persuasive on this. Fatalism entails that the outcome would have been the same regardless of what the person did. Determinism says that the person's actions were a potentially vital, indispensable part of producing that outcome.

The difference may not be quite as big as it first appears. True, a determinist would say that a different action would have produced a different outcome. But the determinist would also say that the person could not really have acted differently, under those exact circumstances. (And those circumstances themselves could not have been different, unless the causal chain were different all the way back to the Big Bang.)

Most likely, though, our results do not stem from philosophical reasoning, as we had suggested. Instead, a change in motivation and effort was probably decisive. To put this another way: Manipulating belief in free will does not alter the generation of counterfactuals because research participants draw metaphysical implications about the deterministic implausibility of alternative scenarios. Instead, most likely they decide whether to bother or not.

A central finding of our research program has been that exerting self-control, rational thought, and other forms of free will requires effort. It is psychologically and even metabolically expensive. People, like all living things, naturally conserve energy. Hence they may be easily persuaded to abandon self-control and other

virtuous but strenuous activities. If they get the impression that they do not have free will, they may gladly abandon the arduous and aversive task of reflecting on how they should have behaved differently.

Understanding the results of our free will manipulations as a change in motivation rather than a consequence of metaphysical reasoning pulls together our accumulated results effectively. When participants are told that they lack free will, they (or at least some of them) may welcome that as an excuse not to bother with the exertions of free will. It is difficult and strenuous to resist temptation, to hold one's temper, and to ponder the implications of one's past misdeeds. Their thoughts may be along the lines of, "My behavior is not a result of my own free decision and conscious control, so why struggle to act as if it were?" If free will meant taking the easy and self-indulgent way out, we suspect our manipulations would have much less discernible effect, even if the metaphysical implications of the message were unchanged.

### Concluding Remarks

We have appreciated the opportunity to benefit from the wisdom of our distinguished colleagues in philosophy. We hope that experimental psychology and philosophy can continue to inform each other. Over the decades, choice has been a powerful,

influential concept in psychology—as is also true of philosophy, literature, law, economics, political science, and many other fields. Whether and in what sense choice involves an agent actually and freely selecting among multiple options, all of which are genuinely possible, is an important foundational question for psychology and indeed for all fields that are concerned with the human condition.

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