

## Epilogue: The Scientific Study of Intentional Action and Free Will

In this book, my main aim was to argue that neuroscientific and psychological experiments are not as threatening to free will as they are taken to be by some. These studies do not show that explanations of what we do in terms of external triggers and unconscious states and processes replace explanations in terms of conscious intentions. We should not conclude from these studies that what we do merely happens to us. Because of this, the experiments do not give us reason to think that our experience as acting agents is unreliable, and that free will is an illusion.

This research project was part of the larger project *Science Beyond Scientism*. Scientism can be understood as the view the science is the only source of knowledge, and that only science can tell us what exists (see, e.g., de Ridder, Peels, & van Woudenberg, *forthcoming*). If scientism is true, philosophy and our individual perspective on the world and what we do *not* provide us with knowledge and do not tell us what exists. In order to respond to scientism in the case of free will, the aim of the book was mainly negative: current experiments that are taken to show that free will does not exist in fact do not provide us with sufficient reason to draw this conclusion. At the moment, science does not overrule the experience we have that we often act freely and intentionally. Also, it does not show that the philosophical discussion on free will has become redundant. This is an important conclusion to draw, because, if taken seriously, the findings may have a large influence on people's self-image, and society as a whole.

However, I do not think that the only thing we can learn from my analysis of the experiments and the surrounding discussions is that, for now, our experience of free will might still reflect something real and that philosophical discussions on free will might still be valuable. I think that more can be said about the scientific study of free will and, with that, intentional action, and how it relates to philosophy and the perspective of the agent. That is what I want to focus on, as a starting point for further investigation, in this epilogue. First, I want to address the question of whether science *can* show that free will does not (or does!) exist without relying on philosophy and taking the perspective of the agent into account. Although I am not completely sure about how to demarcate philosophy from science and whether this

is possible or advisable, I want to argue that the experiments as they have currently been conducted do presuppose a view on what free will is and what the experience of free will is like. That suggests that these researchers are making philosophical claims about what free will is, and that the perspective of the agent and what it is like to act freely does play a role in their arguments. Because of that, it seems that, independently of what these studies exactly show, it is not the case that *only* science provides us with knowledge about free will. Second, I want to reflect on what ‘science beyond scientism’ might look like in the case of free will and intentional action. My suggestion is that in order to expand our understanding of free will and intentional action, experiments should be conducted in which philosophy and the perspective of the agent play a more prominent role. At least, the views on what the concepts measured precisely refer to and what it is like for the agent should be argued for. In line with that, I put forth some suggestions of how the scientific study of intentional action and free will can be improved, and how science can contribute to our understanding of free will and intentional action.

First, I want to address the role of philosophy and the perspective of the agent in the experiments as they are currently conducted. As I said, I think it is difficult to make general claims about what philosophy is and what it is not, but one method that is commonly used by philosophers is conceptual analysis. The aim is to find out what, in this case, free will is and what it is not. If we look at the experiments as they have been conducted and we take conceptual analysis to count as philosophy, it is clear that the scientists do make claims about what free will is. As I pointed out in chapter 1, the suggestion is that free will is about being unresponsive to any past influence (e.g., Wegner, 2002, p. 322). Because of this, it is not true that these scientists only make scientific claims: they make statements about what free will is and conduct experiments on the basis of this conception. Therefore, it seems that they are doing philosophy or at least are concerned with a philosophical question, namely the question of what free will is. They are not scientifically investigating what free will is, but what they take free will to be. This is also the case for other central concepts, such as conscious control and conscious intentions. This suggests that in the scientific study of free will and intentional action philosophy plays an important role; the researchers need to establish how the objects of study should be understood.

Something similar can be said about the perspective of the agent. Some suggest that these findings show that free will is an illusion (e.g., Wegner, 2002): our experience of acting freely is illusory because what we do is in fact not free from causation. It is only because we do not realize that all kinds of unconscious states and processes and external triggers contribute to what we do that we have this experience. With that, these researchers state what our experience of free will is like, namely the experience that you are the uncaused cause of what you do (e.g., Bargh, 2008, p. 131 & p. 133; Libet, 1985, p. 536). Thus, when they state that free will is an illusion, these researchers take a position on what the perspective of the acting agent is like and what it feels like to act freely.

That means that the scientific conclusions about the nonexistence of free will in fact have

not been made without holding a position on what free will is and what it is like to act freely. Then, the conclusions that are drawn about free will on the basis of these experiments also depends on philosophy, understood as making conceptual claims about what free will is, and a view on what the perspective of the agent is like. However, in order to draw conclusions about free will and whether it is an illusion, thinkers should defend their definition of free will and what they take the experience of the freely acting agent to be like. In this book I argued that their definition of free will and, with that, what they think it is like to act freely, is problematic. Regarding the definition of free will, why would not being responsive to any *reason* to act a certain way, e.g., to turn off the gas when you are finished cooking because leaving it on is dangerous, make actions or decisions free? Responding to reasons is generally taken to be central to free will (e.g., Schlosser, 2014). Furthermore, they do not argue for their view on what it is like to act freely, and experimental philosophy seems to suggest that being an uncaused cause is not how most people experience free will (see, e.g., Deery, Bedke & Nichols, 2013; Nahmias, Morris, Nadelhoffer & Turner, 2004). This shows that the problem is that the researchers do not support or critically assess their views on what the perspective of the agent on her (free) actions is like, or what free will is. And precisely because of that, the value of these experiments for understanding free will and/or intentional action is limited. This suggests that one problem of scientism in case of free will is that scientists may assume that, or act as if, they conduct experiments without doing philosophy and without taking the perspective of the agent into account, but in fact they *are* involved with philosophical questions and take a certain perspective or experience of the agent to be correct. The problem is that they do not sufficiently argue for their view. The analysis in this book suggests that in order to scientifically study free will or intentional action, doing conceptual analysis and taking the perspective of the acting agent seriously may be unavoidable.

This brings me to my second aim in this epilogue: to put forth some suggestions of how the scientific study of intentional action and free will can be improved. In other words: what should the science of free will and intentional action look like if we move beyond scientism? This book has offered at least two concrete examples in which conceptual analysis and improving our understanding of the perspective of the agent can improve the scientific study of intentional action and free will. The first example concerns intentional action and the perspective of the agent on what she intentionally does. Similar to free will, science cannot establish what intentional actions are. Before we can scientifically study intentional action, we need to make sure that it is defined and operationalized in the right, or at least in a well-supported, way. And in order to understand what intentional actions precisely are, philosophy offers a lot of valuable insights. For example, in Libet-style experiments a problematic definition of voluntary (or intentional) action is used. The central idea in philosophy, that intentional action is about acting for reasons, is ignored in the neuroscientific experiments. Furthermore, I have argued in chapter 3 that what an agent intentionally does and intends to do depends partly on the perspective of the agent. That is, researchers should think about how to reliably assess this perspective, and they should ask the right questions to find out what the agent did

intentionally and what she did unintentionally. What the agent does intentionally depends on the intention with which she acts, and this cannot be observed 'from the outside'. This means that researchers should not assume that the agent acts with a certain intention on a certain level of description. For example, they cannot assume that I have the intention to flip the turn indicator, or that instead I have the intention to drive to work and that flipping the turn indicator is an intentional subsidiary action.

To provide a concrete suggestion for improvement based on my analysis, researchers should ask their subjects what they were doing intentionally and/or what they were doing for reasons, rather than asking whether they were conscious of a certain intention. Researchers should not assume that agents have a certain intention in action, and then ask whether the subjects are aware of it or not. If that is how the research is conducted, subjects are 'forced' to give an answer, and they might make up reasons or intentions that they in fact did not have. If researchers ask these better questions, they are able to find out whether sometimes we really are mistaken in what we think we are (intentionally) doing, and can provide us with insights about when and why this might happen.

This brings me to my second example: conscious control and whether it matters. Some think that conscious control has to do with the ability to stop what you are doing (e.g., Bargh & Chartrand, 1999), but I have argued that this understanding of conscious control is problematic (see chapter 3). That suggests that they could improve their experiments and draw more interesting conclusions if they would improve their definition. Furthermore, from my analysis in chapter 6 I concluded that it turns out that we lack conscious control (almost) all the time: every time I intentionally act I do something unintentionally as well. While typing these words I also unintentionally make certain sounds, wear off the keyboard, and tighten the muscles in my shoulders and neck. I lack conscious control of what I do under these descriptions. But often that does not matter. I do not *want* to consciously control wearing off the keyboard. However, I do care that I unintentionally tighten my muscles, because I will suffer from doing that later. This lack of conscious control is much more interesting, because it is something I unintentionally do that goes against my (distal) intentions, values, and/or principles. This suggests that, even with a better definition in place, the conclusions that can be drawn about free will are limited, because we should make a distinction between conscious control that is important and conscious control that is not. This depends on the intentions, values, and principles of the person, those of society, and our view about the values and principles we should hold. Thus, in order for scientific research to make valuable claims about conscious control it should take into account what it means to lack conscious control in a way we care about and should care about. This also seems to be an issue that cannot be fully determined scientifically: whether agents lack conscious control in a way that matters to them is something we have to ask the specific agent. Also, I do not see how the question of what lack of conscious control should matter can be answered by scientific research alone.

To conclude, my suggestion is that science can contribute to understanding intentional action and free will, but my analysis of the experiments and the surrounding discussions

suggests that it cannot do so without philosophical investigation and taking into account the perspective of the agent. By doing so, scientific research can provide insight into when and under which circumstances we think we act intentionally while in fact we do not, and might lack conscious control in a way that does or should matter. I hope that with this book I did not only to show that the current research findings do not challenge the existence of free will, but also provided insights in how science can contribute to our understanding of intentional action and free will.