

The thirteenth chapter, by **Max Kistler**, entitled *Models of Downward Causation*, takes on the causal exclusion arguments for physicalism and against any downward causation from the mind. His conclusion and solution diverges from Friederich's and Mukherjee's, yet he also argues for the possibility of downward causation. Kistler holds that we could not make sense of downward causation, especially from the mental and the abstract to the physical, in physicalist terms, because we have not yet found the right model for downward causation. In this chapter, Kistler now analyses two models of causal influences that provide this missing framework. The first model utilises the notion of phase space from dynamical systems theory. Kistler constructs such a model for a case of mental causation, showing that the causal exclusion arguments pose no threat and that downward causation is an unproblematic occurrence. The second model builds on the framework of structural equations which are used in the computer modelling of complex systems to find causal dependencies. Kistler argues that this model respects the principle of causal closure but the exclusion principle, the second premise of causal exclusion arguments, does not hold in this model. He concludes that in both models the exclusion premise is false and takes this as a sign that even physicalists should not endorse it.

In the fifth and final part of this Festschrift, **George F. R. Ellis** replies to each of the contributions in turn. In revisiting each chapter, he not only provides incisive and balanced responses to the assembled perspectives on his work, but also takes the opportunity to situate the multitude of issues that have been raised within a broader scientific and philosophical landscape.

We hope that readers will derive as much enlightenment from these contributions as we have and take them as an incentive to continue exploring the implications of George's unique work. It remains to express our thanks to everyone who has supported us during the process of editing this volume. Special thanks goes to Otávio Bueno, who has time and again—and with astonishing promptness—answered innumerable questions, and to Alex Englander, who has helped immensely with the revision of this introduction and provided frequent advise on our contributions. Finally, we would like to take this opportunity to congratulate you, George, on your birthday—we hope you will continue to provoke and inspire us for many years to come.

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