

“On the Modal Status of the Laws of Nature“

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Laws of nature are supposed to have a peculiar modal status. On the one hand, they are not mere contingencies. The well known example of the difference between the uranium isotope and gold sphere illustrates this. The laws of nature, so it seems, are necessary in a certain sense.

On the other hand, the laws of nature are also supposed to be not as necessary as logical necessities. They could have been different after all. If we include natural constants into the laws of nature we find evidence of this in scientific papers which explore the theoretical consequences of slight changes in these constants.

Furthermore the laws of nature are supposedly explored and justified empirically. Contrary to this, logical necessities are a priori.

I will sketch the three big schools of accounts of laws of nature and evaluate how they fare with regards to the modal status of the laws of nature. Humanism seems to abolish the necessity of the laws altogether. ADT (Armstrong, Drestke, Tooley) believe in the necessity of laws, but they just posit it ad hoc. Only dispositional accounts, it seems, can provide a basis for the peculiar necessity of laws of nature. Classical dispositionalists, like Bird and Elis, however go too far. They posited metaphysical necessity as the modality of laws of nature. This has to been argued to be unattainable by Schrenk.

Mumford and Anjum, also two dispositionalists, gave up necessity all together. To me this seems like a too harsh reaction. I'll try to show that one does not have to go this way, by outlining an account of the necessity of laws of nature, based on dispositions of natural kinds. This may be seen as metaphysically costly by some - as it includes the notorious dispositions as well as the equally suspect natural kinds - but it may very well just get us what we want. As Ockham's razor is only utilised in the endgame, the benefits of this account should outweigh its costs.