

# Notes on Mayo's Notion of Severity

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## Abstract

Deborah Mayo propounded the epistemology of experiment in her *Error and the Growth of Experimental Knowledge* (1996), and the notion of severity plays an essential role in her epistemology. In the following two notes, I wish to point out a defect of her definition of severity, and to argue that she must revise this definition in conformity with what she actually does in her book (Note 1). The revision has some important consequence: in order to apply Mayo's severity consideration to experimental tests, we have to know all alternative hypotheses, in a given experimental situation, in advance. Mayo does not seem to recognize this, and her analysis of Perrin's experiment seems to be affected by this defect. I will present what I regard as the correct way to reconstruct Perrin's argument (Note 2).

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**Additional Information:** minor typographical changes on the earlier version, because some symbol did not appear on some browsers

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