

# Formalising Semantic Information Lessons from Logical Pluralism

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## Abstract

By introducing the notion of logical pluralism, it can be concluded that up to now theories of semantic information have - at least implicitly - relied on logical monism, the view that there is one true logic. Adopting an unbiased attitude in the philosophy of information, we ought to ask whether logical pluralism could entail informational pluralism. The basic insights from logical pluralism and their implications for a theory of semantic information should therefore be explored. First, it is shown that (i) the general definition of semantic information as meaningful well-formed data does not favour any logical system, (ii) there are nevertheless good reasons to prefer a given logic above some others, and (iii) preferring a given logic does not contradict logical pluralism. A genuine informational pluralism is then outlined by arguing that for every true logic the logical pluralist accepts, a corresponding notion of semantic information arises. Relying on connections between these logics, it can be concluded that different logics yield complementary formalisations of information and informational content. The resulting framework can be considered as a more versatile approach to information than its monist counterparts.