

Title: Theory or Metatheory? At What Level Should We Be Pluralists About Logic?

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Although a long tradition of philosophers has considered logic to be universal and unique, its epistemological and normative status has very often been called into question, particularly following work in non-classical logics¹. Regarding this plurality, one of the philosophical positions that has been put forward is that of *logical pluralism*. In the current state of the literature in philosophy of logic, we still do not have a unitary characterisation of logical pluralism, nor of its status and foundations. Depending on the definition of logic and depending on its applications, different analyses of the plurality of logical systems have been proposed². On one hand, there are various logical pluralisms on the basis of what is meant by *logic* and what conception of *logical consequence* we accept (Hlobil 2021). On the other hand, Caret (2021) emphasizes that “the term ‘logic’ is at least three ways ambiguous in contemporary use: it can refer to a topic, an interdisciplinary line of research (i.e. what *logicians* do), or a ‘mathematical toolbox’ [...]”; a distinction which yields another set of versions of pluralisms that are anchored in the field of applied logic. The aim of the presentation is to try to investigate the level at which a pluralism in logic is fruitful and enriching, not only at the level of practice but also in the domain of theoretical logic.

In a recent article, Poirier (2014) proposes to think of the plurality of logical systems in logical practice in the framework of Gentzen's sequent calculus. The following passage summarises how he conceives of logical pluralism: “Logical pluralism goes as follow: these different logics are said to be ‘correct’ in that they specify differently, through the modification of structural properties, the concept of proof given by the sequent calculus. [...] The sequent calculus allows us to give an account of a crucial aspect of the logical practice: the existence of a plurality of formal systems.”³ Even if the generality of the sequent calculus and the possibility of comparing different logical proof systems is begged for by pluralists, it seems that at the level of the metalanguage things are still not settled. There is not only little consensus on the distinction between logical and non-logical vocabulary, but also on the consequences of mixing up different logics (i.e. intermediate logics) or translating one into another. One possibility to treat this type of questions has been to set the debate at a *meta-level*, something like a meta-theory or meta-logic, which nevertheless leaves several worries to the pluralists to manage, i.e. coherence-worry (Passmann 2021).

A path that could offer a new perspective in the logical pluralism debate is the one that considers the plurality of logics as close to the plurality of languages. The *Principles and Parameters* approach has made possible the serious investigation of linguistic properties and has offered a more systematic explanation of the plurality of language systems. A notable consequence of this approach is that it proposes a new conceptualisation of the relation between the universal aspects of all languages and their plurality. The hypothesis of a nucleus of principles could be applied to logics at the level of the metalanguage. Thus, a strategy for pluralist logicians emerges: by adopting the theoretical framework borrowed from generative linguistics, everyone could justify the adoption of various inferential and structural rules by considering that these would result from the choice of specific parameters. A set of fundamental principles could form a nucleus of logical properties that would be common to every logical system. Egré (2021) suggests that this approach of Generative Linguistics gives a monistic foundation to the analysis of the plurality of logics. The talk will examine this possibility but will argue for a substantial pluralism generated by the variation of structural logical parameters.

¹ I use the term “non-classical logic” in an extremely broad way, it includes any logical system that differs from classical logic in one way or another. Examples of such logics include modal logics, intuitionistic logic, and paraconsistent logic, and substructural logics.

² The richness of current debates can be seen even in the following works: Bueno and Shalkowski 2009, Hjortland 2013, Barrio et al. 2020, Restall 2014.

³ Poirier 2014, p.39-40.

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