Consequence and proportionality in Boethius’ *De Differentiis Topicis*

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# Abstract

This paper represents the first part of a larger project, inquiring into the origins of the notion of formal consequence developed in the Medieval Parisian tradition, and culminating in the work of arts master John Buridan. That such a project should start with Boethius’ *DDT* witnesses not to a broad chronological scope, but to a rather limited one: that of the later 13th into the 14th century, during which time the treatise was one of only three original Latin works in the curriculum of the *logica antiqua*,[[1]](#footnote-1) and the one most clearly concerned with rules of inference.[[2]](#footnote-2)

Boethius’ treatise addresses proportionality in two senses, one broader and one more restricted. In the more restricted sense, it is *part* of the treatment of consequence given in the treatise – that concerned with the Themistian topic *a proportione*.[[3]](#footnote-3) In the broader sense, though, proportionality governs the treatment of inference in its entirety: *every* valid conditional holds by virtue of a topic, which is itself a proportional relation between the *significata* of the terms of the antecedent and consequent – e.g. cause-effect, part-whole, etc. set

Taking Buridan’s *Tractatus de Consequentiis* as a foil, this paper shows the following:

* That for Boethius, Topics form a framework for the discussion of conditionals in their entirety;
* That this framework is essentially *term*-based, rather than proposition-based;
* That *because* it is term-based, Boethius’ treatment of conditional sentences aims to provide an exhaustive schema capturing not only *which* inferences are valid, but *why* they are: consequents follow from their antecedents by virtue of their *significata* being in certain topical relations to what the terms of the antecedent denote;
* For this reason, Boethius’ treatment of consequence differs from Buridan’s (and contemporary accounts) in the following two essential respects:
  + For Boethius, the question of which consequences hold is simultaneously a question about *evidence*, i.e. one does not have a good consequence unless the antecedent *makes* the consequents’ holding clear. Buridan’s treatment, by contrast, since it admits both circular proof and rules like *ab impossibili quodlibet*, eschews this requirement.[[4]](#footnote-4) Boethius’ framework thereby remains “relevant”.
  + But unlike modern relevant logic, Boethius’ account is relevant precisely *because* it rejects a defining aspect of the modern relevance paradigm: the quest for an adequate account of ‘the’ conditional. For Boethius, the syncategorematical term *si* (i.e. English ‘if-then’) does not signify a form of reasoning: it is an ambiguous verbal construction used to signify several *different* kinds of topical argument. For this reason, the conditional as a connective, and argument forms like modus ponens based on it and accepted by later nominalists like Buridan as basic, Boethius takes to be confused.

1. The other two were Boethius’ *De Divisione* and the anonymous *Liber Sex Principiorum*. The manuscript tradition suggests that Boethius’ commentaries as well as his treatises on syllogisms, though popular in the 12th century and earlier, were by this later time no longer canonical. [↑](#footnote-ref-1)
2. Though in modern logic, consequence, inference, entailment, etc. are distinguished, I will follow the Medieval (and common English) practice of using such terms more or less interchangeably. [↑](#footnote-ref-2)
3. This topic corresponds to what we today would be more likely to call ‘analogy’, and Boethius gives the following argument as an example:

   1. Magistrate: city ≈ captain: ship
   2. The captain of a ship shouldn’t be chosen by lot
   3. The magistrate of a city shouldn’t be chosen by lot [1, 2, *a proportione*]

   In this sense, the topic *a proportione* represents a substitution rule according to which in a sentence where one series of terms is found, a second analogous to it may be substituted *salva veritate*. [↑](#footnote-ref-3)
4. The main conditional with which Buridan operates in the *TC* is essentially identical with C. I. Lewis’ strict conditional. [↑](#footnote-ref-4)