Consequence and formality in the logic of Walter Burley

Abstract This paper details and situates Walter Burley's account of *consequentiae*, or consequences.

In the first part, I present the basic distinctions governing Burley's division of consequences, followed by a symbolic reconstruction of the rules governing consequences in Burley's later version of *De puritate artis logicae*. An examination of the rules of Burley's logic reveals that:

i) Burley distinguishes consequences from conditionals, and prioritizes the former. For instance, Burley gives contraposition for consequence as a basic rule, on which he claims contraposition for the conditional depends.

ii) For Burley, every consequence is an *enthymeme*. Hence consequences are not foundational for Burley (as they are for his younger contemporary John Buridan), but rather depend on the theory of the topical syllogism.

iii) While Burley discusses consequences involving contradictions, he gives every indication that these consequences are *not* explosive. Rather, propositions derivable from a contradiction are restricted to those whose terms either themselves appear in the premises or are linked to these terms in a suitable way (e.g. where the beings denoted by one term form a subset of those denoted by the other). In this respect, Burley's account is somewhat close to modern relevant logics.

The second part of the paper compares Burley's remarks on formal consequence to the account of John Buridan, and thereby charts a path whereby Burley's account was able to be creatively engaged by his younger contemporary at Paris.

For Buridan, i) a consequence holds formally exactly when it holds for every uniform substitution of its categorematic terms; ii) it holds *in virtue* of its formal part, identified with its syncategorematic terms; and iii) the distinction between formal and material consequences, based on that between formal and material parts of a language, is taken to be disjoint, exhaustive, and absolute. Hence, Buridan inherits a medieval version of Tarski's problem of the demarcation of logical constants.

By contrast,

i) Burley sees uniform substitution as a necessary, but not sufficient, condition for formal consequence. Hence, Buridan's theory takes what for Burley is a method for finding formally *invalid* consequences, and turns it into a definition of formally *valid* consequence.

ii) Burley distinguishes between formal consequences that hold in virtue of terms and those that hold in virtue of the whole structure of an argument. But whenever Burley speaks about formal consequences holding in virtue of terms, he means *categorematic* terms. Hence, Buridan's understanding of categorematic consequences as dependent on *syn*categorematic terms reflects an interesting inversion of Burley's approach.

iii) Burley's distinction between formal and material consequence is relative, and depends on an explicit determination of which terms are to be held constant in a given consequence. Hence, unlike Buridan's account, Burley's does not suffer from Tarski's demarcation problem.

Burley is probably best known for his 'extreme realist' metaphysics. This study shows an examination of the logic of this extreme realist provides much of interest even for understanding the nominalists opposed by – and indebted to – him.