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A SIMPLIFIED DECISION PROCEDURE FOR CATEGORICAL SYLLOGISMS

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In this article I would like to (1) present a simplified decision procedure (the "star-test") for categorical syllogisms, (2) prove the equivalence of this procedure with a more traditional set of rules, (3) present an extended form of the star-test in a simple syllogistic calculus, (4) show how the procedure may be used to derive syllogistic conclusions, (5) present a generalized version of the extended star-test, and (6) sketch a parallel inferential proof-procedure.

1 To test a categorical syllogism (on the modern interpretation): if you asterisk just the distributed terms in the premises and the undistributed terms in the conclusion, then the syllogism is valid if and only if every term is asterisked exactly once and there is exactly one right hand asterisk. Let me give a couple of examples:

no P* is F*
some C is F
∴ some C* is not P

is valid; after asterisking every distributed term in the premises and every undistributed term in the conclusion, it is found that every term is asterisked exactly once and there is exactly one right hand asterisk. But:

no P* is F*
some C is not F*
∴ some C* is P*

is invalid; after doing the asterisking it is found that "P" and "F" are asterisked twice while there are three right hand asterisks. This "star-test" is very easy to learn and remember and takes only five seconds to apply.

A parallel star-test for the Aristotelian interpretation is as follows (the difference between the two tests is italicized): if you asterisk just the distributed terms in the premises and the undistributed terms in the

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