Relevance and Disjunctive Syllogism

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Introduction   In this paper I present a novel account of the correctness in everyday contexts of informal uses of disjunctive syllogism from the perspective of relevant logics. This account can be regarded as an extension of the Anderson/early-Belnap position which has been much criticized of late. It also draws on intuitions underlying Mortensen's "normal context" approach and uses a similar strategy. Furthermore, it sits well with relevantist methodology because it makes disjunctive syllogism enthymematically valid using a premise which expresses what the relevantist claims is presumed when disjunctive syllogism is taken to be valid. I illustrate this novel approach using examples extant in the literature. This makes it clear that in most everyday, "normal" reasoning situations the formal relevantly valid construal of informal uses of disjunctive syllogism is also sound. It also highlights the shortcomings of classical formal construal of informal uses of disjunctive syllogism. As a further example I prove that the γ result (for R, say) can be used—if A and $\sim A \vee B$ are theorems then B is a theorem—using a relevantly valid argument.

1 An important distinction   We must distinguish between informal use of disjunctive syllogism

$$A \text{ and } (\text{not-}A \text{ or } B), \text{ hence } B,$$

which we will call disjunctive syllogism(or), and contenders for formal reconstruction of the informal argument. An example of the latter is the classical formal reconstruction

$$A, \sim A \vee B \vdash B,$$

which we will call disjunctive syllogism(v). So in speaking of the "correctness of usage . . . of informal uses of disjunctive syllogism" above, I am not suggesting that it is ever correct to use the formal argument disjunctive syllogism(v).