Against the Brogaard-Salerno Stricture
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'It is widely agreed that contraposition, strengthening the antecedent and hypothetical syllogism fail for subjunctive conditionals', write Brogaard and Salerno in (2008: Counterfactuals and context, *Analysis* 68.1, 39–46). In that article they argue that the putative counterexamples to these principles are actually no threat, on the grounds that they involve a certain kind of illicit contextual shift.

Here I argue that this particular kind of contextual shift, if it is properly so called, is not generally illicit, and that therefore the counterexamples shouldn't be blocked with the kind of blanket restriction Brogaard and Salerno advocate. The idea that the reasoning patterns in question can be vindicated given restrictions still seems promising; the purpose of this note is to show that the simple restriction proposed by Brogaard and Salerno isn't the right way of going.

Brogaard and Salerno conduct their discussion within the framework of the standard Lewisian account of counterfactuals, which says that

> a subjunctive of the form 'if A had been the case, B would have been the case' is true at a world *w* iff B is true at all the A-worlds closest (or most relevantly similar) to *w*.

(This is the formulation used by Brogaard and Salerno. It is adapted from Lewis (1973: *Counterfactuals*, Oxford: Blackwell).) They introduce the term 'background facts' to designate 'the respects in which *A*-worlds are relevantly similar to *w*'. Thus every counterfactual in a particular context, on the standard theory, is attached to a set of background facts. Now, the central claim of their article is that 'the set of contextually determined background facts must remain fixed when evaluating an argument involving subjunctives for validity'. One set of background facts per argument. Let us call this *the Brogaard-Salerno Stricture*. Brogaard and Salerno say that to flout this stricture is to make an illicit contextual shift, and that since the putative counterexamples to contraposition etc. flout the stricture, they should not be accepted. (While Brogaard and Salerno use Lewis's account, it is important to note that their Stricture, and my argument against it, can be carried over to other accounts which differ from Lewis's in detail but still involve background facts or something like them.)

For an argument to comply with the Brogaard-Salerno Stricture, all counterfactuals occurring within it have to be alike in background facts. What I wish to point out is that this condition is unsatisfied by many valid arguments, including the following:

(P1) If Mary hadn't had breakfast, she would have lunched sooner.
(P2) If John had worn black shoes, he would have worn black socks.
(C) Therefore, if Mary hadn't had breakfast, she would have lunched sooner, and if John had worn black shoes, he would have worn black socks.

The conclusion follows from the premises by conjunction introduction. For the first premise, one of the background facts might be that Mary has a normal appetite. Another might be that she does not like to go hungry. These are plainly irrelevant to the second premise. Conversely, John's sense of style has nothing to do with the first. So the *salient* background facts are different for each premise. More acutely: with (P1) we are certainly *not* including Mary's having had breakfast - let's assume she did, i.e. that (P1)'s antecedent is false - as a background fact, since the conditional is about what she would have done had she not had breakfast. Likewise, with (P2), we are certainly not including the fact - let's assume it is one - that John did not wear black shoes. (I owe this way of making the point to an anonymous referee.) The point is, we cannot stipulate that these premises are attached to the same set of background facts without doing obvious violence to their meaning. These two premises, if they are to be understood the way they are meant to be understood, cannot figure in the same argument without flouting the Brogaard-Salerno Stricture. But the above argument is obviously valid. Therefore the stricture is not appropriate.

That is my argument against the Brogaard-Salerno Stricture. That the Stricture is too strong is a negative result, but there is no reason to think we have reached a dead end here. Brogaard and Salerno's basic idea, that the inference patterns at issue can be vindicated once proper restrictions are observed, has not been seriously threatened. What I have shown is just that their particular approach to the restricting is too simple.

One alternative approach which suggests itself is to place restrictions regarding background facts on particular inference rules, rather than all deductive reasoning occurring within a given argument. We might do well to start with contraposition, strengthening the antecedent and hypothetical syllogism. Other rules may be fair game too. In this connection, consider this passage:

> But suppose we are wrong about this. Suppose shifting context mid-inference is no fallacy at all. Then a rather surprising consequence follows. Modus ponens - which many possible world accountants love and cherish - fails too. (Brogaard and Salerno, (2008: p. 44).)

On the present suggestion, the evidence for the claim of the last sentence might motivate the view that modus ponens needs to be restricted too - but still, not all deductive reasoning within a given argument. Conjunction introduction, for example, is *prima facie* OK without such a restriction.

This rule-by-rule approach may also be mistaken (or insufficient by itself, or adequate in principle but inelegant compared to some other approach). Also, requiring *sameness* of background facts, even at the level of particular rules, may in some cases be too simple; for instance, perhaps bringing in a counterfactual whose set of background facts is a proper superset of another's - adding but not subtracting background facts, so to speak - is sometimes allowable. These are no more than suggestions, but their availability indicates that there is a good opportunity for further work here.