

Strict/Tolerant and Tolerant/Strict Logics, Melvin Fitting, CUNY

Strict/tolerant logic, ST, evaluates the premises and the conclusions of its consequence relation differently, with the premises held to stricter standards while conclusions are treated more tolerantly. More specifically, ST is a three-valued logic with left sides of sequents understood as if in Kleene's Strong Three Valued Logic, and right sides as if in Priest's Logic of Paradox. Surprisingly, this hybrid validates the same sequents that classical logic does, though it differs from classical logic at the metaconsequence level. A version of this result has been extended to meta, metameta, etc. consequence levels, creating a very interesting hierarchy of logics.

In two papers I showed that the original ideas behind ST are, in fact, much more general than first appeared, and an infinite family of many valued logics have Strict/Tolerant counterparts. Besides classical logic, this family includes both Kleene's and Priest's logic themselves, as well as first degree entailment. For instance, for both the Kleene and the Priest logic, the corresponding strict/tolerant logic is six-valued, but with differing sets of strictly and tolerantly designated truth values. There is a reverse notion, of Tolerant/Strict logics, which exist for the same structures. And the hierarchy going through meta, metameta, \ldots consequence levels exists for the same infinite family of many valued logics.

I will present a sketch of the basic generalizations, of Strict/Tolerant and Tolerant/Strict, but I will not have time to discuss the hierarchies of such logics, nor will I have time to give proofs, beyond a sketch of the ideas involved. Throughout, my aim is not the philosophical applications of the Strict/Tolerant idea, but the determination of how general a phenomenon it is. Full details can be found in my recent paper "A Family of Strict/Tolerant Logics", *Journal of Philosophical Logic*, only online version available at the moment.

Expressibility and the (Un)paradoxicality Paradoxes, Will Nava, NYU

In recent work, Julien Murzi and Lorenzo Rossi introduce a series of new revenge paradoxes, one for each of paracomplete, paraconsistent, non-contractive, and non-transitive solutions to semantic paradox. The revenge paradoxes involve a pair of predicates — 'is paradoxical' and 'is unparadoxical' — one of which each revisionist approach is unable to express. In this talk, I review the options for the four subclassical approaches and show how the non-transitivist and paraconsistentist can avoid the new paradoxes. Along the way, I discuss criteria for what predicates nonclassical solutions to paradox are obligated to be able to express.

What is Meta-inferential Validity?, Chris Scambler, NYU

The recent literature on substructural logics has seen the distinction between 'local' and 'global' notions of meta-inferential validity rise to prominence. In this talk I'll begin by explaining the distinction/it's significance and giving some intuitive considerations for/against each account. I'll then motivate a Humberstone-inspired definition that in a certain sense lives "between" these two alternatives (perhaps a little closer to local than global) and argue that it has intuitive advantages over both. I'll close by discussing the relation between all the notions at issue and recent results

on hierarchies of substructural logics due to Barrio, Pailos and Szmuc. (The presentation will be based on joint work with Brian Porter.)

Supervaluations and the Strict-Tolerant Hierarchy, Brian Porter, CUNY

In a series of recent papers, members of the Buenos Aires Logic Group show that there are logics that have exactly the validities of classical logic up to arbitrarily high levels of inference. They suggest that a logic therefore must be identified by its valid inferences at every inferential level. However, Scambler shows that although these logics have all the validities of classical logic at every inferential level, they have no antivalidities at any inferential level, and therefore do not have the same antivalidities as classical logic. Scambler concludes that in order to identify a logic, we at least need to look at the validities and the antivalidities of every inferential level. In this talk, I'll argue that this is still not enough to identify a logic. I'll apply BPS's techniques in a super/sub-valuationist setting to construct a logic that has exactly the validities and antivalidities of classical logic at every inferential level. I argue that the resulting logic is nevertheless distinct from classical logic. I propose sets of mutually satisfiable inferences as an additional criterion for identity between logics.