This note outlines a proposal for a novel mathematical treatment of a phenomenon which is well-recognised in formal semantics (understood as a subfield of linguistics) but which has increasing relevance for denotational semantics (understood as a tool for the analysis and design of programming languages). The discussion here is at a high level and the formal aspects are not developed in any detail, but I refer throughout to relevant mathematical literature and draw heavily on Avron (date), Zeilberger (date), (SUBSTRUCTURAL GUYS), and...

This phenomenon can be roughly described by two claims: i) everyday reasoning as expressed in a natural language such as English is *defeasible*, in the sense that conclusions derived from a set of true premises by a sequence of acceptable rules of inference should sometimes be withheld as new evidence is uncovered and as our premise-set grows and ii) there is a special fragment of reasoning, which we call *deductive* reasoning, characterised by the fact that

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