

Dissertation Abstract

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Modality in Flux develops a novel semantic theory for modals that has important consequences for contemporary work in epistemology, metaphysics and ethics. Many prominent issues in these areas—for instance, those that concern the status of relativism or the paradoxes about conditional obligations—are intimately tied to theoretical questions about the semantics of modality. On the orthodox view that dominates the literature, our best semantic theory for modals is truth-conditional. I argue that this view is the main culprit behind a number of puzzles in analytic philosophy. In place of the orthodox view, I develop a well-motivated non-truth-conditional semantics for modals. Its results include a simple explanation of the possibility of modal disagreement that avoids relativism, a solution to the gentle murder paradox, and new impulses for a generalized solution to the Frege-Geach problem for noncognitivism.

My dissertation starts with the problem of modal disagreement. If Alex says that the keys might be in the car and Mary says that they cannot be in the car, it looks as if they disagree. But on the orthodox view, what Alex and Mary *say* seems perfectly compatible. What Alex says is true if the keys being in the car is compatible with what *he* knows; what Mary says is true if the keys being in the car is incompatible with what *she* knows. Hence there is no conflict in what Alex and Mary say, and thus there should be no disagreement. It is widely agreed that this is a severe problem, and it has lead contemporary philosophers to extraordinary conclusions. Some say that epistemic modals make a strong case for relativism: epistemically modalized sentences vary in truth-value across points of assessment (e.g. Egan, Hawthorne, MacFarlane, Weatherston). Others say that there is no unique proposition expressed by a judgment of epistemic modality (von Fintel, Gillies). I argue against these views and in favor of a *dynamic* semantics for modals.

According to dynamic semantics, the meaning of a sentence is to be described in terms of what we *do* when we utter that sentence. The general idea is that utterances are instructions to move from one conversational context (the context in which it is made) to another conversational context (the context posterior to the utterance). Some declarative sentences are uttered with

the intention of conveying a truth-condition determining proposition to the audience, but we are not committed to saying that *all* declarative sentences are uttered with this intention. Such sentences have content since their utterances encode instructions for changing the conversational context in a certain way. But their content does not reduce to truth-conditional content.

Dynamic semantics is much discussed in linguistics and computer science but is only beginning to make its way into philosophy (though some central ideas of dynamic semantics go back to Stalnaker's work in the 1970s). On my view, its relevance for philosophy is twofold. First, since dynamic semantics is fully compositional, we can now elaborate a non-truth-conditional semantics for a certain bit of natural language while avoiding the Frege-Geach problem. Second, since some sentences may lack truth-conditions, logical validity cannot simply be a matter of necessary truth-preservation. Instead, I argue for a dynamic notion of logical consequence that is couched in terms of the necessary preservation of *information* (the notions of entailment, inconsistency, etc., are correspondingly interpreted).

Applied to the case of epistemic modals, the key idea of my proposal is that *might*-statements are designed to highlight certain epistemic possibilities. Such statements are then not accurate or inaccurate descriptions of someone's knowledge but instructions for changing the context in a certain way. When Alex says that the keys might be in the car, he tries to make Mary aware of the epistemic possibility of the keys being in the car. As with all other assertions, Mary will react to Alex's assertion on the basis of what *she* knows. But she thereby does not misinterpret what Alex says, as what Alex knows is semantically irrelevant for his assertion. My theory predicts that every sentence and its negation are (dynamically) inconsistent, thus accounting for the intuition that Alex and Mary disagree. Of particular importance is that my theory is non-truth-conditional yet fully compositional. This is the starting point for a generalized solution to the Frege-Geach problem for nondescriptive semantics, and in particular to the Frege-Geach problem for noncognitivism.

My theory about modals also solves a longstanding problem in ethics. Conditional obligations give rise to a series of paradoxes, including Forrester's gentle murder paradox and the recent "miners paradox" from Kolodny and MacFarlane. I argue that such paradoxes arise if one ignores that what ought to be done depends on the available information about possible outcomes and alternative courses of action. This information may change during discourse or reasoning, and so may what ought to be done. As a result we have independent reason to give up certain principles of classical deontic logic, including those that lie at the heart of our paradoxes (closure of *ought* under logical entailment, proof by cases). I develop a dynamic logic in which *ought* is evaluated

against an ever-changing context, and this allows us to take these philosophical morals into account. At the same time the resulting logic is strong enough to do justice to our common normative reasoning. Specifically, we can preserve the validity of modus ponens and identify those circumstances in which one can indeed rely on logical entailment to derive one normative judgment from another.

Finally, my dynamic semantics for modals also resolves some outstanding problems about conditionals in formal epistemology. I favor a reading of the Ramsey test according to which evaluating a conditional proceeds by first adding the antecedent hypothetically to what is believed and then evaluating the consequent on that basis. This reading is similar in spirit to traditional treatments of conditionals as developed by, e.g., Gärdenfors and Levi, but the details of my proposal avoid a range of problems this traditional treatment faces. Specifically, my treatment of conditionals easily accounts for the distinction between hypothetical reasoning and adopting a potential state of full belief, thus providing for the intelligibility of conditionals like “If Sally is deceiving me, I do not believe it” (originally due to Thomason and discussed by van Fraassen, Lewis, Jackson, and others). Furthermore, hypothetical reasoning fails to preserve previous commitments, a feature which avoids Gärdenfors’s triviality result for the Ramsey test.