

Reasoning and Representing

Bob Brandom

Full Disclosure: These lectures are shamelessly promoting some of the ideas developed in more detail in the book: Ulf Hlobil and Robert Brandom, *Reasons for Logic, Logic for Reasons: Pragmatics, Semantics, and Conceptual Roles*, [Routledge, 2024].

Gilbert Harman: “There is no such thing as deductive inference.” We must distinguish *relations* of implication from inferential *practices*. (1984) “Logic and reasoning.” *Synthese*, 60(1):107–127.

A minimal model of discursive practice includes:

- Speech acts of *assertion* and *denial* by uttering declarative sentences, which express
- Practical attitudes of *accepting* and *rejecting*, which are
- Doxastic *commitments*, *entitlement* to which can be
- *Challenged* and *defended* by further claims.
- Reason relations of *implication* (consequence) and *incompatibility*, determining which claimables are reasons *for* and reasons *against* other claimables, and so which are suitable as defenses and challenges.

Greg Restall’s and David Ripley’s bilateral normative pragmatics for the sequent calculus defines reason relations:

- Γ *implies* A iff the position of being committed to *accept* all of Γ and to *reject* A is “out of bounds”: a constellation of commitments to which one cannot be entitled.
- Γ is *incompatible* with A iff the position of being committed to *accept* all of Γ and to *accept* A is “out of bounds”: a constellation of commitments to which one cannot be entitled.
- If *commitment* to *accept* all of Γ precludes *entitlement* to *reject* A, then it *implicitly* commits one to *accept* A.

Kit Fine’s truth-maker semantics and its modal, mereological metaphysics:

- A universe of states,
- Divided into possible and impossible states. (Modal structure)

- States can be fused with others to form new states as wholes, of which they are parts. (Mereological structure)
- A semantic interpretation function assigns declarative sentences to pairs of sets of states, understood as the truth-makers and falsity-makers (verifiers and falsifiers) of those sentences, subject to the condition of
- Exclusivity: every fusion of truth-makers of a sentence with any falsity-maker of that sentence is an impossible state.
- Consequence as Entailment: Γ entails A iff every verifier of all of Γ is a verifier of A.
- Consequence as Containment: A contains Γ iff every verifier of A includes as a part a verifier of all of Γ and every verifier of all of Γ is a part of a verifier of A.
- There are many more propositions (=df. pairs of sets of states satisfying Exclusivity) than can be expressed by the sentences of any particular language.

Suggestion: Define *implication* in the truth-maker framework by analogy to Exclusivity.

Definition: Γ implies A iff every fusion of any truth-maker of all of Γ with any falsity-maker of A is an impossible state.

Hlobil isomorphism of bilateral normative pragmatic definition of reason relations and truth-maker semantic definition:

- i) Pragmatic consequence: Γ implies A iff any position that includes accepting all of Γ and rejecting A is normatively incoherent or “out of bounds”: one cannot be entitled to such a constellation of commitments.
- ii) Semantic consequence: Γ implies A iff any fusion of a state that verifies all the members of Γ with a state that falsifies A is an impossible state.
- iii) Pragmatic incompatibility: Γ is incompatible with A $\Leftrightarrow$ the position resulting from concomitant commitment to *accept* all of Γ and to *accept* A is normatively *incoherent* (“out of bounds”): a constellation of commitments to which one *cannot* be entitled.
- iv) Semantic incompatibility: Γ is incompatible with A $\Leftrightarrow$ the state resulting from *fusion* of any *verifiers* of all the members of Γ with any *verifier* of A is an *impossible* state.

The key to *conceptual realism* is understanding conceptual form as role with respect to reason *relations*, rather than reasoning: the Harman distinction. For relations of a kind of *inclusion* (consequence, implication) and *exclusion* (inconsistency, incompatibility) characterize both discursive thought and the world thought about. We understand these as *reason* relations (so as functionally defining specifically *conceptual* form) because of the role they play pragmatically as norms governing what claimables are properly treated as reasons for and against what other claimables. But it turns out that we can then see relations articulating the world that is there to be represented semantically as *isomorphic* to those that articulate discursive practice.

Reason relations are modally robust. The modality is different on the subjective side of appearance than on the objective side of reality. The modality characteristic of consequence and incompatibility on the pragmatic side of reason relations implicit in practices of rationally defending and challenging (giving reasons for and against) claimings is a *deontic normative* matter of what constellations of *commitments* one can be or is precluded from being *entitled* to. The modality characteristic of consequence and incompatibility on the side of the metaphysics of representational semantics is an *alethic modal* matter of what combinations of states are *possible* or *impossible*. This is *bimodal* conceptual realism. In the third lecture, we will consider the abstract *ranges of subjunctive robustness* of reason relations, which manifest themselves concretely in these two modalities.

1. A key element of early modern philosophers' response to the rise of the new science was to move from thinking of appearance in terms of its *resemblance to* reality to thinking of it in terms of its *representation of* reality.
2. Looking at Descartes' algebraic representation of geometrical properties, Spinoza understood the new notion of representation in holistic terms of a global isomorphism: "the order and connection of ideas is the same as the order and connection of things." (*Ethics* II, Prop 7.)
3. Kant took a further step away from the original *perceptual* paradigm of the appearance/reality distinction by focusing on specifically *conceptual* appearances.

"Kant was on the right track when he insisted that just as concepts are essentially (and not accidentally) items which can occur in judgments, so judgments (and, therefore, indirectly concepts) are essentially (and not accidentally) items which can occur in reasonings or arguments." Wilfrid Sellars ("Inference and Meaning" [I-4].)