Vagueness and abundance

Martín Abreu Zavaleta

mabreuza@syr.edu

https://martinabreu.net/va.pdf

Arguments from abundance

Oaks are tall

Arguments from abundance

Somewhere between 1m and 6m, there's a boundary (perhaps vague) between trees that count as "tall" and trees that don't.

Arguments from abundance

Infinitely many candidates:

$$\vdots$$

"oaks are tall" means that oaks are at least 4.999m tall
"oaks are tall" means that oaks are at least 5m tall
"oaks are tall" means that oaks are at least 5.001m tall

$$\vdots$$

Arguments from abundance

$$\Gamma = \left\{ \begin{array}{l} \qquad\qquad\qquad\qquad\qquad\vdots \\ \text{“oaks are tall” means that oaks are at least 4.999m tall} \\ \text{“oaks are tall” means that oaks are at least 5m tall} \\ \text{“oaks are tall” means that oaks are at least 5.001m tall} \\ \qquad\qquad\qquad\qquad\qquad\vdots \end{array} \right\}$$

Arguments from abundance

Abreu Zavaleta (2022):

1. (**Uniqueness**) Necessarily, at most one of the propositions in Γ is true.
2. (**Indistinguishability**) $\mathsf{Cr}(P) = \mathsf{Cr}(Q)$ for all $P, Q \in \Gamma$.
   Therefore,
3. (**Zeroism**): $\mathsf{Cr}(P) = 0$ for all $P \in \Gamma$.

Arguments from abundance

Other arguments from abundance:
Semantic plasticity (Dorr and Hawthorne, 2014)
Against Gricean accounts of speaker meaning (Schiffer, 2017)

Arguments from abundance

Troubles for orthodoxy:

- Speaker meaning (Bach and Harnish, 1979; Grice, 1989; Schiffer, 1972)
- Understanding (Grice, 1989; Strawson, 1964)
- Substantive agreement/disagreement (Chalmers, 2011; Vermeulen, 2018)
- Semantic competence and semantic content (Heim and Kratzer, 1998; Kaplan, 1989; Lewis, 1970)
- Counterfactual speech reports

Arguments from abundance

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Arguments from abundance

Sparseness: Typical declarative sentences have exactly one meaning candidate which is better than the rest.

Arguments from abundance

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Plan

The metaphysical picture

The metasemantic picture

Responding to arguments from abundance

Conclusion

The metaphysical picture

$\Box$ - metaphysical necessity
Δ - determinacy

The metaphysical picture

Propositional Leibniz's Law

$$P = Q \to (\phi \to \phi[Q/P])$$

The metaphysical picture

P is precise iff it is necessarily determinate.

$$\Box(\Delta P \vee \Delta\neg P)$$

The metaphysical picture

P is vague iff it is possibly indeterminate.

$$\Diamond(\neg\Delta P \wedge \neg\Delta\neg P)$$

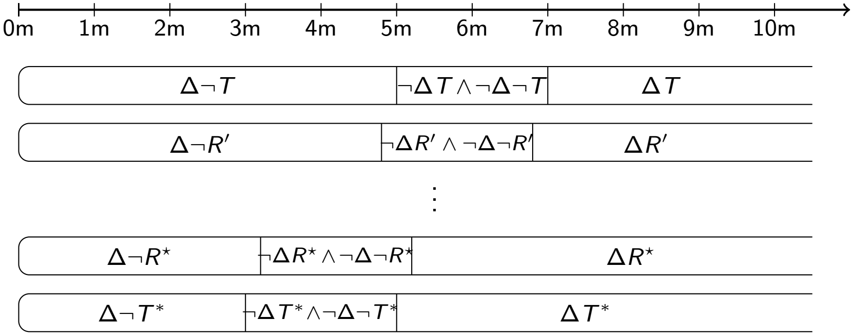
The metaphysical picture

Vague distinctness: If P and Q are distinct vague propositions, then it's possible that one is determinately true while the other is determinately false.

The metaphysical picture

$$(P \neq Q \wedge \mathsf{VAGUE}(P) \wedge \mathsf{VAGUE}(Q)) \rightarrow \Diamond[(\Delta P \wedge \Delta \neg Q) \vee (\Delta \neg P \wedge \Delta Q)]$$

The metaphysical picture



The metaphysical picture

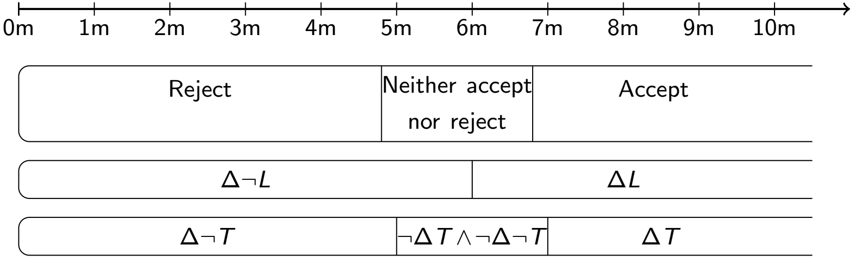
Vague propositions are coarser than precise ones:

- every vague proposition is precisifed by at least two precise propositions, but
- any precise proposition precisifies at most one vague proposition.

The metasemantic picture

Dispositionalism: Declarative sentence s means proposition P just in case P best matches competent speakers' profile of dispositions to accept or reject s.

The metasemantic picture



Responding to arguments from abundance

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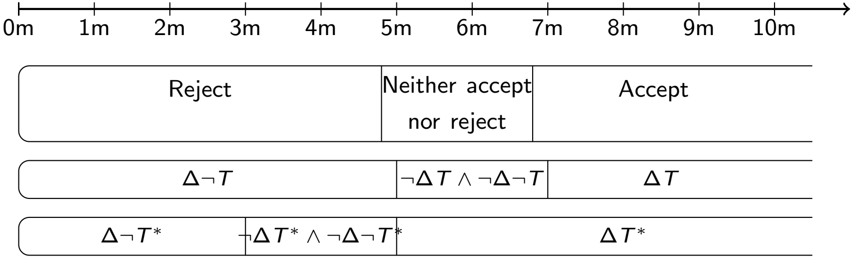
Responding to arguments from abundance



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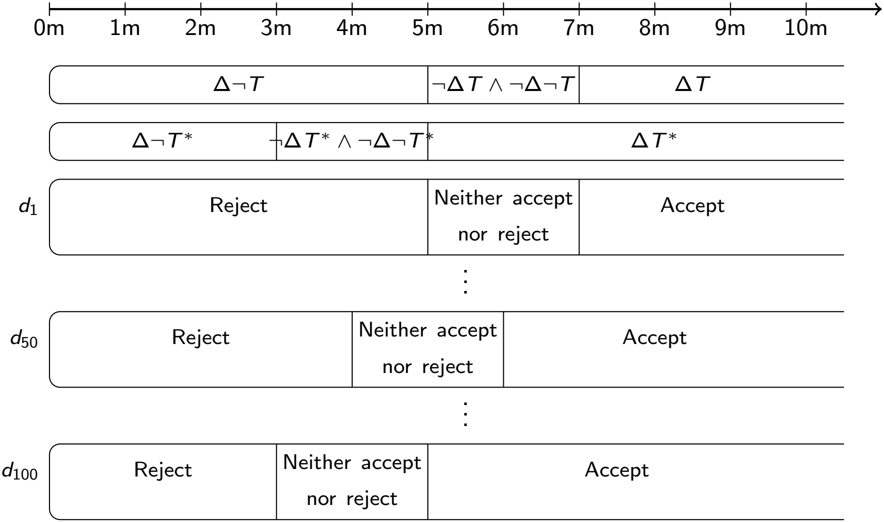

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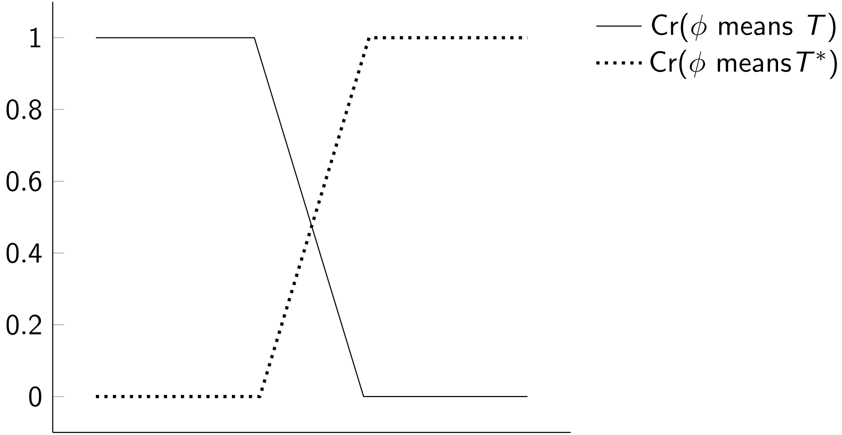

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Responding to arguments from abundance

Dorr and Hawthorne on semantic plasticity.

$W =$ the set of physically possible worlds.

$\mu =$ a translation of the Liouville measure from phase space to W.

Responding to arguments from abundance

If each point in a σ-finite measure space belongs to only finitely many members of a certain family of sets, then at most countably many members of that family have positive measure. (see D&H, fn. 16 for proof)

Responding to arguments from abundance

Dorr and Hawthorne (2014, p. 292):

1. (**Finitude**) Only finitely many members of Γ are true at any given world in W.
2. (**Parity**) If any member of Γ has positive measure relative to W, uncountably many do. Therefore,
3. (**Plasticity**) No member of Γ has positive measure relative to W.

Responding to arguments from abundance

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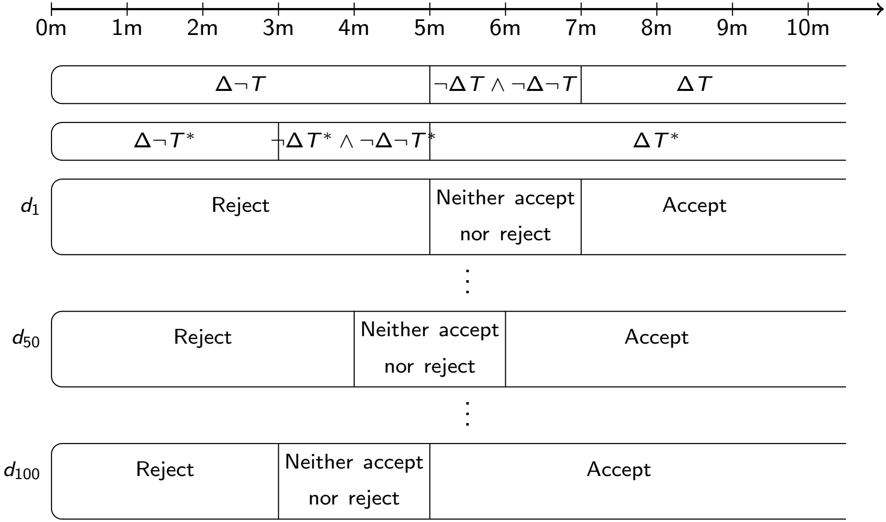

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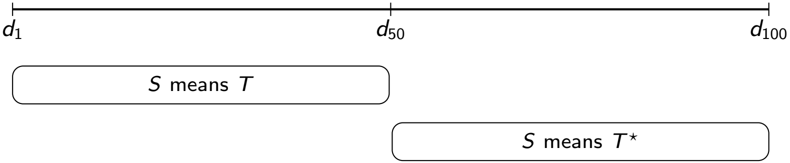

Conclusion

- Outlined a view able to motivate Sparseness.
- Showed how this view helps resist arguments from abundance.