

Speaking of Preferences: Imperative and Desiderative Assertions in Context

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June 4–5, 2010

1 Speech acts performed by imperatives

Central problem for semantic analyses of imperatives (in the formulation of Schwager (2006), as far as we know first appreciated in its entirety by Schmerling (1982)):

The Problem of Functional Heterogeneity Crosslinguistically, imperatives get associated with a rather heterogeneous range of speech act types (COMMANDS, WARNINGS, REQUESTS, ADVICE, CURSES, PERMISSIONS, OFFERS, CONCESSIONS, ...).

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|-----|----|------------------------------|-------------|
| (1) | a. | Stand at attention! | (COMMAND) |
| | b. | Don't touch the hot plate! | (WARNING) |
| | c. | Hand me the salt, please. | (REQUEST) |
| | d. | Take these pills for a week. | (ADVICE) |
| | e. | Please, lend me the money! | (PLEA) |
| | f. | Get well soon! | (WELL-WISH) |

- g. Drop dead! (CURSE)
- h. Please, don't rain! (ABSENT WISH)
- i. Okay, go out and play. (PERMISSION/CONCESSION)
- j. Have a cookie(, if you like). (OFFER)

- Conventional content of the utterances in (1) vs. the speech act performed by the imperative utterance in a given context (as intended by the speaker) vs. hearer “responses” to the utterance
- For the hearer “responses”, we distinguish three notions, where each item in the following list presupposes the earlier one(s):
 - (i) **Uptake:** Uptake succeeds if the hearer understands the imperative in the way it is intended by the speaker.
 - (ii) **Acceptance:** A hearer accepts an imperative if he takes on the prejacent as an action-preference for himself.
 - (iii) **Fulfillment:** An imperative is fulfilled if the prejacent is made true.
- An imperative can be taken up, but denied; or taken up and accepted, but go unfulfilled. Or it can be taken up, accepted, and fulfilled.
- A hearer will often be required to either signal acceptance (thus taking on a commitment to act in a certain way), or denial (thus rejecting such a commitment).
- Imperatives can realize (at least) the speech-act types in (1) *in virtue of them being imperatives*.
- How can we capture the heterogeneity and systematic exclusion of speech act types associated with imperatives without disjunctively listing the different illocutionary forces in the semantics of an imperative operator?

Performative Uses of Modal Sentences Well-known observation (at least since Kamp (1973)): Modal sentences can be used both to *report* and to *bring about* obligations and permissions.

- (2) [Tax lawyer to client]
You must report this donation as income. (reportative use)

- (3) [Lecturer to class]
The final assignment must be in my mailbox by six pm on Friday.
(performative use)

- Strategy 1** a. Assume that modals are ambiguous between a reportative and a performative meaning (Kamp 1973, Kamp 1978, van Rooy 2000).
b. Alternatively, assume that modals can carry an optional ‘performative’ meaning component (in addition to its usual, propositional content) that gives rise to the performative effect in (3) (Portner 2007).

- Strategy 2** Assume that the semantics of **must** is constant across the two uses, and that the performative effect arises through pragmatic/interactional reasoning triggered by certain contextual conditions (Kamp 1978, Schwager 2006).

These two strategies can also be employed in the analysis of imperatives:

- Following Strategy 1b., one can simply assume that the meaning of an imperative consists of the additional meaning component that modals can have. Similarly, following Strategy 1a., one can assume that imperatives have the same meaning as modals on their performative reading.
- To follow Strategy 2 one would have to assume that the meaning of imperatives is distinct from that of modals (as imperatives do not have a descriptive use). Or so it would seem.

2 An assertoric account

- Central idea: Underspecification + felicity conditions
- Imperatives denote propositions
- Resolved content in a context satisfying the felicity conditions determines the speech act performed
- Update of the common ground with an imperative utterance is the usual assertoric update but because of the conditions on the contextually resolved parameters the information gained is of a special sort

2.1 Schwager (2006): Imperatives as modal assertions

- Schwager (2006) analyzes imperatives as *assertions of modals*, which come with a set of felicity conditions that ensure that these modals are always *performatively used*.
- Modal assertions give rise to performative effects *when the context is right*, while imperatives are only felicitous if the context is right, in the same sense.
- The meaning of an imperative is that of relativized necessity (human necessity in Kratzer's terms) where the two conversational backgrounds, modal base and ordering source, have to satisfy certain conditions.
- The modal base is constituted by mutual joint belief.
- The ordering source has to be preference-related (deontic, bouletic, teleological) but can otherwise vary from context to context.
 - E.g. if the ordering source is 'what the speaker commands' we get orders, if the ordering source is 'what the speaker desires', we get wishes, if it is a bouletic+teleological one, we get advice, etc.
- Schwager proposes a number of further conditions relating the speaker, the common ground and the conversational backgrounds fixing the content of imperatives.¹
- Imperative utterances are informative: a world in the common ground gets eliminated if the value of the ordering source at that world does not verify the human necessity that is the propositional content of the imperative.
- The problem of functional heterogeneity is solved through the *underspecification* of modals, i.e. their dependence on a modal base and ordering source. Once the conversational backgrounds are fixed (as intended by the speaker), the content of the imperative determines the speech act performed.

¹See Schwager (2006) for the exact formulation and Kaufmann and Schwager (2009) for a more updated version of the conditions.

2.2 Some worries about an underspecification account

(Contextual) Inconsistency Inconsistency between two imperatives requires retraction. This is true for wishes as much as it is for orders.

- Schwager motivates the need for putting information about what the speaker commands or wants in the ordering source rather the modal base on the basis of the fact that conflicting orders or wishes are not vacuous.
- But not trivializing necessity is not enough.
- Contradicting imperatives are necessarily interpreted as *revisions* (Portner 2007). If two imperatives are conflicting and uttered one after another (even with some temporal distance between the two utterances), the second imperative must be interpreted as a **correction** of the first:

- (4) a. Stay inside all day!
b. Okay, go outside and play!

- Surprisingly, contradicting imperatives expressing wishes are incoherent, while conflicting desires can be coherently asserted with **want**. Interestingly, contradicting expressions of wish with **if only** are incoherent as well.

- (5) a. Please, rain tomorrow so the picnic gets cancelled!
b. Please, don't rain tomorrow so I can go hiking.

- (6) I want it to rain tomorrow so the picnic gets cancelled but, on the other hand, I don't want it to rain tomorrow so I can go hiking.

- (7) a. If only it could be snowing all day tomorrow so that there is no school closes!
b. If only it doesn't snow tomorrow so we can play outside!

- Thus while the preferences expressed with imperatives are required to be *consistent*, the same is not true for desires asserted by means of **want**.

- The question about an underspecification account is: Why can't you just adjust the conversational background by adding more propositions to resolve the conflict?

Proper place of interactional conditions

- In order to get orders right, for example, Schwager has to appeal to non-standard ordering sources, such as 'what the speaker commands'
- It is not exactly clear what this ordering source is supposed to amount to: At times, it seems that Schwager wants to bring the classical speech-act analyses through the back-door (in the ordering source).
- The speech-act notion of COMMAND is necessarily interactional: For example, a COMMAND is only successful if it is understood appropriately.
- But: If we import all these interactional facts into the definition of the ordering source, it becomes unclear how Schwager's felicity conditions (in particular her condition that the speaker have 'perfect knowledge' of the ordering source) can ever be satisfied.
- If we understand the relevant notion of 'commanding' in 'what the speaker commands' as a kind of 'mental/private commanding', her conditions can easily be satisfied.
- But then it is unclear how the performative effect comes about.

Orders via imperatives and via explicit performatives are no different Imperatives intended as orders by the speaker but not accepted by the hearer still count as orderings, just like explicit orders with a performative verb like **order**. (This does not mean the conventional meaning of imperative sentences and of sentences with a performative verb is the same!)

- (8) a. A: I order you to sign off on that report!
 B: You can't order me to do anything!
 A: I guess you are right.
- b. C: A ordered B to sign off on the report, but he did not have the authority to do so.

- (9) a. A: Sign off on that report!
B: You can't order me to do anything!
A: I guess you are right.
- b. C: A ordered B to sign off on the report, but he did not have the authority to do so.

Wish readings are not freely available Wish readings arise only if it is taken for granted that it is not under the control of the hearer to fulfill the imperative.

- If the functional heterogeneity is due to *underspecification*, then a speaker should feel free to set the contextual parameter any way he pleases.
 - He might be held responsible for not making his choice clear, but he can always claim “That is not what I meant!”
 - But imperatives do not behave like this:
- (10) A: Have a good trip and get some work done on the train!
B: Can you stop micro-managing me? I will do whatever the hell I please on the train.
A: ??That was not what I meant! I just wanted to say that I **hope** you get work done on the train.

- In (10), the second conjunct of A's utterance *cannot* be understood as expressing a mere wish/hope.
- Presumably, that is because it is (somewhat) under the control of the hearer if he gets work done.

2.3 Speech acts performed by desiderative assertions

- Assertions about desires can be plainly informative (or ‘reportative’).
- Thus, a speaker who utters (11) may well have no intention other than informing that Susan is in a certain bouletic state, and his utterance

may well have no effects other than providing the hearer with this information.²

- (11) Susan wants to marry a Swede. (No performative effect)
- But simple assertions of desires can be put to many of the same kinds of uses that imperatives can be put to.
 - So, if the context is right, the sentences in (12-a-g) can be used to perform the type of speech act indicated in the labels on the right.
- (12)
- a. [Mother to child]
I want you to clean your room before playing. (COMMAND)
 - b. [Mother to child]
You do NOT want to touch that cookie!(PROHIBITION/WARNING)
 - c. [Doctor to patient]
I want you to take these pills for a week. (ADVICE)
 - d. [Recipe]
You want to stir the mixture well. (ADVICE)
 - e. [Affirming an offer]
No, really, I want you to take the last cigarette. (INVITATION)
 - f. [Among collaborators]
I want you to write this up before our next meeting.(REQUEST)
 - g. If it is that important to you, I want you to go. (CONCESSION)
- An assertion of sentences like (12)a,c,d,e, under the right contextual conditions, can, in addition, provide information about
 - what the hearer is obligated to do. (COMMAND)
 - what the hearer should do in order to achieve a goal. (ADVICE)
 - what the hearer can do and still adhere to standards of politeness. (INVITATION)
 - Intonational clues (symbolized here by the use of exclamation marks and capital letters) can help give rise to relevant speech act. We see these as signaling certain features of the context rather than as triggering the speech act.

²Of course, it is quite possible that (11) takes on an additional conduct-guiding implication in the right context, e.g. as a request that the addressee introduce some of his Swedish friends to Susan.

- We would like the conventional effect of asserting the sentences in (12) to be no different from that of (11), that is we would like to not pursue the analogue of Strategy 1b or Strategy 1a for modals. But desiderative verbs are not semantically underspecified in the same way that modals are.
- Also, the fact that desiderative assertions can be used as orders suggests a different strategy for deriving order uses of imperatives.

Idea to pursue Analyze imperatives as uniformly expressing speaker preferences.³

3 Representing Preferences

Need for ranked preferences

- In analyses of modality following Kratzer (1981), the ordering source is used to *rank* the worlds in the modal base, by ranking more highly worlds that make more⁴ propositions in the ordering source true.
- Such ordering sources may well be inconsistent.
- Now, while plain ordering sources may be sufficient for the interpretation of modals, they are not good at modeling guidelines for action based on an agent’s conflicting preferences, desires, obligations, etc.
- Suppose, for instance, Sven desires to finish his QP.
- Sven also desires to lie around all day, doing nothing.
- Thus, his bouletic ordering source should include the propositions expressed by (13) and (14):

(13) Sven finishes his QP.

³The analyses proposed by Wilson and Sperber (1988) and in Davis (2009) are analyses in the same spirit. For Wilson and Sperber (1988), an imperative *p!* expresses *desirability* and *achievability* of *p*. For Davis (2009), an imperative *p!* adds *p* to the set of intentions (a set of propositions) the speaker is publically committed to.

⁴Where ‘more’ is either explicated in terms of cardinality or a subset-relationship.

(14) Sven lies around all day, doing nothing.

- We want to explain why, given that he knows that (13) and (14) are incompatible, Sven *decides* to work on his QP (rather than lying around all day).
- Intuitively, we want a way to specify that finishing his QP (and hence progressing towards his dissertation), is *more important* to Sven than lazing around.
- A **preference structure** relative to an information state W is a pair $\langle P, \leq \rangle$, where $P \subseteq \wp(W)$ and \leq is a (weak) partial order on P .
 - You may think of a preference structure as a modal ordering source plus an ‘importance’ ranking.
- A preference structure $\langle P, \leq \rangle$ is **consistent** iff for any $p, q \in P$ such that $p \cap q = \emptyset$, either $p < q$ or $q < p$.
 - Consistency requires that if two propositions are incompatible, they must be strictly ranked.
 - Recall that the propositions in P are subsets of an information state (typically, the agent’s doxastic state).
 - Thus, the consistency requirement would force a ranking of *contextually incompatible*, as well as *logically incompatible* propositions.
 - For example, Sven knows that he won’t finish his QP if he lies around all day, doing nothing (even though this is not a logical necessity).
 - So, if the preference structure representing his desires is to be consistent, the two propositions in (13) and (14) must be strictly ranked.
 - An inconsistent desire structure is perfectly fine, until Sven wants to *act* on his desires.
 - For how will Sven decide what to do, unless the two incompatible propositions are strictly ranked?
 - More generally, the *consistent* preference structures are those that can be used as a guideline for action.

- We assume that the desires, preferences, and obligations of various kinds of an agent A are represented by a set \mathbb{P}_A of preference structures.
 - Not all of these need to be consistent (internally or mutually). For example, preference structures representing *desires* often will not be.
 - Other preference structures may be consistent (that is what one would hope, e.g. for the ones that represent *what the law requires*.)
- A (consistent) preference structure induces a ‘lexicographic’ partial ordering \preceq on a set of worlds.
- A rational agent A will have a distinguished, consistent preference structure $\langle P_A, \leq_{P_A} \rangle$. We call this A ’s *effective preference structure*.
 - This is intended to be consolidated preference structure that the agent uses to decide upon actions.
- We require that $P_A = \bigcup \mathbb{P}$ and further that if $p, q \in P_A$ such that there is $\langle P, \leq_P \rangle \in \mathbb{P}$ and $p <_P q$ and there is no $\langle P', <_{P'} \rangle \in \mathbb{P}$ such that $q \leq_{P'} p$, then $p <_{P_A} q$.
 - These requirements ensure that there are no spurious goals introduced into P_A , and that rankings that are consistent are kept in the preference structure.
- A ’s induced preference order \preceq_{P_A} will (partially⁵) determine the agent’s behavior: If the agent has the choice between w_1 and w_2 (as worlds that differ only in what action, if any, A performs), and $w_1 \prec w_2$, then A will choose w_2 .

⁵Only partially, as an agent may be genuinely indifferent between two possible courses of affairs.

4 Imperatives as assertions about effective preferences

- With the notion of preference structures in place, we can treat imperatives as assertions that target the effective preference structure of an agent.⁶
- Imperatives are thus assigned a constant, non-underspecified meaning, accompanied by one felicity condition, shared with Schwager (2006).

Epistemic uncertainty constraint

The utterance of an imperative $p!$ is felicitous only if the speaker is *uncertain* about whether p is true.

- We explore two options:
 1. $\llbracket \text{IMP}_1(p) \rrbracket^c = \{w \mid p \text{ is a maximal element of } P_{c_s} \text{ at } w\}$
 2. $\llbracket \text{IMP}_2(p) \rrbracket^c = \{w \mid \text{Commit}(c_a, p) \text{ is a maximal element of } P_{c_s} \text{ at } w\}$ where c_s and c_a are the speaker and the addressee(s) in context c , respectively, and $\text{Commit}(a, p) = \{w \mid a \text{ commits himself to } p \text{ being a maximal element of } P_a \text{ in } w\}$
- The role of the modal base is played, in effect, by the information state preference structures are relativized to.
- In particular, any given world of evaluation determines the doxastic state of the speaker, which may vary from world to world.
- Update with an imperative utterance indirectly gives information not just about the speaker's preference but his beliefs as well.

⁶In this talk we do not discuss how desiderative assertions can give rise to the speech acts seen above. Condoravdi and Lauer (2009) show how this can be done, starting with a semantics of **want** based on Heim's (1992) analysis. One could develop an alternative analysis for **want** based on preference structures as proposed in this talk. On such an analysis, **want** may come out as more underspecified than traditionally thought.

(Contextual) Inconsistency

- IMP_1 directly accounts for the fact that inconsistent imperatives must be revisions: The effective preference structure must be consistent, hence no two maximal elements can be (contextually) incompatible.
- Resolution of the conflict may amount to reranking (change in the order of the effective preference order of the speaker), or to change of beliefs leading to reranking (change in both components of the effective preference order of the speaker).

(15) Mother: Clean your room immediately!
Johnie: You mean you don't want me to do my homework?

- What about IMP_2 ?
- IMP_2 also predicts this, if we assume that the speaker does not want the hearer to take on incompatible commitments, a reasonable assumption for all but the most malicious speakers.

Interactional conditions

- Our account only requires the speaker to have a certain mental attitude in order to (truly and) felicitously utter an imperative.
- Interactional conditions play a role only at a pragmatic level, in the interaction of the imperative utterance with the context.
- They have nothing to do with the denotational meaning of the imperative.
- On the other hand, our account gives us a handle on explaining why many uses of imperatives require the hearer to ensure *uptake* and *acceptance* of the imperative utterance (and understand the cases in which this is not necessary/possible).

4.1 Functional heterogeneity

The different illocutionary forces of imperative utterances arise as contextual entailments based on contextual conditions resulting from socio-cultural circumstance and manifest assumptions about hearer and speaker desires.

Orders, requests, and pleas are naturally accounted for on the IMP₂-analysis: Assume p is under the control of the addressee.

- In certain contexts, the addressee will be socially or institutionally obligated to take on the commitment the speaker requests.
- In contexts where this is not the case, we will get the weaker requests or pleas.
- To reiterate: We do not think that what separates orders from requests are some sort of linguistic convention—rather, we claim that they are differentiated by differential contextual assumptions.

Similarly, the IMP₁-analysis can deal with orders, requests and pleas easily.

- The authority-condition, in this case, has to be slightly more general⁷: The utterance of imperative is an order in a given context, if, in this context, the hearer is socially or institutionally obligated to defer to the preferences of the speaker (with respect to p)⁸.

Advice uses come in two kinds: Those where there is a salient shared goal between hearer and speaker (16) and those where there is not (17).⁹

(16) [Doctor to patient] Take these pills for a week.

(17) A: Excuse me, how do I get to San Francisco?
B: Take the North-bound Caltrain.

- On both analyses, cases like (16) come out quite directly.
 - In light of a topical goal, the hearer will conclude that the speaker's preference (for a commitment) is due to the speaker wanting to realize the shared goal.
 - Thus, the hearer also learns something about the speaker's belief (viz. that fulfilling the imperative will further the goal).

⁷Observe that this version would also do the job with IMP₂.

⁸Such authority will always be bound to a specific domain, except perhaps in certain militaristic scenarios.

⁹In the former case we get desiderative assertions of the form **I want you to q**, e.g. *I want you to take these pills for a week*, in the latter we get desiderative assertions of the form **You want to q**, e.g. *You want to take the North-bound Caltrain*.

- Cases like (17) are more difficult, unless one wants to assume that there is a shared goal in (17) as well.
 - We do not think one gets this assumptions for free: Between strangers, as in (17), there are no shared goals.
 - However, we think that the following principle is plausible to assume for social agents:

Cooperation by default

An agent A is cooperative-by-default iff he adds any topical goal g of another agent to his preference structure, such that for all $P \in \mathbb{P}_A$: for no $p \in P$: $p < g$.

- That is, an agent is cooperative-by-default if he acts as though he shares topical goals of his interlocutors, *in case none of his own private preferences interferes*.
- We submit that interlocutors usually assume each other to be cooperative-by-default.
- Note that the condition above does *not* exclude the ‘fake’ preference g being a maximal element: If, and only if, no other goal interferes, it will be.
- But that is the case precisely when we get ‘disinterested advice’ uses.

Permission uses likewise come in two varieties: Those where is is (plausibly) commonly presupposed that the hearer has a desire to fulfill the imperative (18), and those where this assumption is not usually met (19).

(18) A: Can I go out and play?
B: Okay, go out.

(19) Take a cookie/seat/...

- The first variant, in (18), can be rather easily accommodated by either of the proposed analyses:

- With IMP_1 , the speaker commits himself to act as though he preferred p , i.e. as if he shared the hearer’s desire—but if he has the power to allow/forbid p , this means he must allow it.
- With IMP_2 , the speaker says he has a preference for the hearer taking on a commitment to do p .
 - * Case 1: The speaker can safely be assumed not to want to provoke a fight. Then he would prefer such a commitment only if he allows p .
 - * Case 2: The speaker is ‘spoiling for a fight’. On this analysis, this should be possible, and it is. Except that we do not think of these occurrences as *permissions*, but rather as *dares*:

(20) Come on! Take the ball from me!

- The second variant, where it is not commonly known that the hearer has a desire to fulfill the imperative, need more work. We suggest that these are implicitly conditionalized (perhaps as a repair strategy in response to a request that would be unreasonable if made unconditionally).
 - Note that these often come with an overt **if you like**, which we take to be a standard (reduced) conditional.¹⁰
 - IMP_1 comes out as asserting, roughly, “If you want to do p , I want you do p .”
 - IMP_2 comes out as asserting, roughly, “If you want to do p , I want that you commit to acting on this desire.”
 - Both will have the effect, in context, to effectively give permission / extend an invitation.
 - Note also that imperatives with overt **if you like** can *never* be anything but a permission/invitation.
 - Our account predicts this straightforwardly.

Absent wishes, well-wishes, ill-wishes can only be straightforwardly analysed (as sincere utterances) using IMP_1 : They come out as mere expressions of wishes . . . or do they?

¹⁰This assumption is immune to the objections raised by Hamblin (1987) and Schwager. Their objections against conditionalization rely on the assumption that permissions/invitations are *conditional obligations* or *conditional teleological necessities*.

- Really, assertions about effective preferences are not particularly suited to express desires.
- That is because such preferences will always be construed as enticements for the hearer, if he is likely to fulfill the desire, and able to do so.
- Note that examples where plain-wish readings are possible arise exactly if these conditions are not met, ...
 - Because there is no addressee (present), as in the examples in (21) (absent wish).
 - It is mutually assumed that the hearer has no influence on whether or not p , as in (22) (well-wish).
 - It is mutually assumed that the hearer will not fulfill the desire, as in (23) (ill-wish).

(21) a. [On a way to a blind date]
 Please, be blond!
 b. Please, don't rain!
 c. [Co-author A to himself about co-author B] Now, B, don't screw up!

(22) Get well soon!

(23) Drop dead!

5 Commitments and conventions of use

5.1 Speaking of Commitments

- While an assertoric account has its attractions (viz. conceptual simplicity), we think that an elegant (and more uniform) account can be given if one thinks of imperatives (and utterances in general) as directly manipulating the commitments of the speaker.
- Thus, an assertion ' p ' can be viewed as the speaker *taking on the commitment to act as though he believed p* .

- And an imperative ‘*p!*’ can be viewed as the speaker *taking on the commitment to act as though he effectively preferred p* (\simeq IMP₁).
- Or as the speaker *taking on the commitment to act as though he effectively preferred that the hearer commit himself act as though he effectively preferred p* (\simeq IMP₂).
- Indeed we want to suggest that the latter version follows from the former version, in contexts in which this is adequate (hence, e.g., for orders, but not for well-wishes).
- **Upshot:** Under this view, imperatives add to the public version of the speaker’s effective preference structure (and assertions add to his public beliefs).

5.2 Conventions of Use

- We’ve said that assertions and imperatives update the public commitments of the speaker.
- How do they do that?
- We want to suggest: Not because they denote different kinds of update functions. Indeed, we may assume that imperatives denote traditional model-theoretic objects (say, sets of events).
- Nor do we assume an abstract ‘force head’ in the structure of imperative (and other) sentences.
- Instead, we propose that both propositions and event descriptions are associated with *Conventions of Use*.
- These are conventions in the sense of Lewis (1969) (roughly, self-sustainable regularities in behavior in a population).
- The conventions we propose here are in the spirit of Lewis (1975)’s ‘convention of truthfulness and trust’, but their content is very different.
- In particular, we propose the following two conventions:

- If a speaker utters an indicative (or: proposition-denoting expression), he is thereby committed to act as though he believed the content of the indicative.
 - If a speaker utters an imperative (or: event-property-denoting expression), he is thereby committed to act as though he effectively preferred the content of the imperative.
- **Upshot:** Assuming that there is conventional meaning that is not compositional meaning (viz. conventions of use) allows for a rather attractive and straightforward conceptualization of the semantics/pragmatics interface.

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