

Subjective Attitudes and Counterstance Contingency

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Summary

Across languages, SUBJECTIVE ATTITUDE VERBS (SAVs), such as English *find*, differ from ordinary doxastic attitude verbs (such as English *believe*) in that they require their complement to be subjective in a particular way. The goal of this paper is to develop a semantics for SAVs that predicts this fact but also captures the finer-grained differences between *find*-type SAVs and *consider*-type SAVs that make the former more restrictive than the latter. We propose that in terms of their core, at issue content, SAVs are just like *believe* in expressing a doxastic attitude towards the prejacent. They differ in that they introduce a presupposition that their prejacent is contingent relative to what we will call COUNTERSTANCES of the attitude holder's doxastic state: information states that differ only in decisions about how to resolve semantic underdetermination by the facts of the discourse situation. We provide a formal model for deriving counterstances from information states, the key idea being that an information state can be understood as the result of a decision procedure that involves application of multidimensional and evaluative choice functions, and thus provide a formal characterization of the “two types” of subjectivity that emerges in the variable acceptability of predicates under *find* and *consider*. The larger theoretical significance of our proposal is that it supports a characterization of “subjective language” as an essentially pragmatic, context-sensitive phenomenon, which does not correlate with semantic type (pace Sæbø) but derives from speakers' recognition of the possibility of counterstance.

Abstract

Background Sæbø (2009) examines SUBJECTIVE ATTITUDE VERBS, such as English *find*, with the goal of adjudicating between different formal accounts of the semantics of taste predicates, evaluative adjectives, and other expressions with “subjective” content [see also Stephenson 2007, Bouchard 2012, Fleisher 2013, Kennedy 2013, Bylinina forthcoming]. *Find* is notable because it requires its complement to be subjective in a particular way. Thus (1a) with the evaluative adjective *fascinating* is acceptable, but (1b) with *vegetarian* is not, even though this is an expression for which there may be inter-speaker variation as to which criteria are relevant for determining whether the predicate applies.

- (1) a. Kim finds Lee fascinating, because he is an expert on oysters.
- b. # Kim finds Lee vegetarian, because the only animals he eats are oysters.

In this sense, *find* contrasts with the otherwise similar verb *consider*, which can be used with predicates like *vegetarian* (as well as *fascinating*):

- (2) a. Kim considers Lee fascinating, because he is an expert on oysters.
- b. Kim considers Lee vegetarian, because the only animals he eats are oysters.

At the same time, *consider* is like *find* in rejecting fully objective predicates (Fleisher 2013):

- (3) a. # Kim finds the sum of two and two equal to four.
- b. # Kim considers the sum of two and two equal to four.

Intuitively, the sentences in (1)-(3) all imply that it is somehow “up to Kim” whether the predicate in the complement can be truthfully applied to its argument (albeit in slightly different ways, as shown by the contrast between (1b) vs. (2b)), which accords with our understanding of the meaning and use of *fascinating* and *vegetarian*, but not *equal to four*. It is in this sense that both *find* and *consider* express subjective attitudes, and it is in this sense that they differ from a “vanilla” doxastic attitude verb like *believe*, which accepts any kind of predicate in its complement:

- (4) a. Kim believes that Lee is fascinating, because he is an expert on oysters.
- b. Kim believes that Lee is vegetarian, because the only animals he eats are oysters.
- c. Kim believes that the sum of two and two is equal to four.

The goal of this paper is to develop a semantics for subjective attitude verbs (SAVs) that captures this intuitive characterization of their difference from plain doxastic attitude verbs, and also captures the finer-grained differences between *find*-type SAVs and *consider*-type SAVs that make the former more restrictive than the latter. Our analysis is inspired by the treatment of epistemic *must* in von Stechow and Gillies 2010. Von Stechow and Gillies are interested in explaining the intuition that a *must*-statement such as “*It must be raining*” is weaker than its non-modalized counterpart, while at the same time maintaining a strong semantics in which *must p* entails *p*. Their proposal is that in addition to its universal quantificational force, epistemic *must* carries with it an additional evidential component, such that an utterance of *must p* is appropriate only if the prejacent is known on the basis of indirect evidence or deduction, rather than on the basis of direct evidence. We claim that something along these lines is also right for *find* and *consider*. In terms of core, at-issue content, these verbs are just like *believe* in expressing a doxastic attitude towards the

prejacent. (*Find*-statements and *consider*-statements entail the corresponding *believe*-statements.) They differ in that they introduce a presupposition that their prejacent is contingent relative to what we will call COUNTERSTANCES of the attitude holder's doxastic state: information states that differ only in decisions about how to resolve underdetermination about arbitrary matters of linguistic practice.

Our proposal We start with the familiar assumption that semantics assigns to sentences truth-values at possible worlds and with respect to specific contextual parameters (standards of comparisons, modal bases, and the like), and we take it as a truism that the facts about a conversation are compatible with multiple ways of setting these parameters, and thus effectively underdetermine the truth-values of sentences in discourse. For the purposes of our analysis of subjective attitudes, two instantiations of such underdetermination are key. One is MULTIDIMENSIONALITY: given some set of facts, the conventions of language use remain consistent with multiple (possibly conflicting) criteria for assigning extension and anti-extension for some predicates. A second is EVALUATIVITY: even if the criteria for assigning extension and anti-extension are fixed, they may be consistent with multiple decisions about the assignment of extension and anti-extension for some predicates.

In actual discourse interactions, participants partially resolve the contextual underdetermination in various ways, such as through explicit or implicit agreement about criteria (e.g., by deciding to exclude eating mollusks from the factors that would disqualify an individual from counting as vegetarian), by coordinating on evaluative judgments or tastes, and by other means. What is crucial for our purposes is the assumption that speakers are aware that these decisions, made in order to construct a common ground, are not based on objective facts of the world, but instead represent arbitrary decisions about linguistic practice.

To capture the arbitrariness of the path to a (Stalnakerian) common ground — and more generally, to any distinct belief state or information carrier — we will embellish the familiar model of an information state as a set of possible worlds with a device for tracking salient decision points leading up to it. Specifically, we introduce a function κ which models the contingency of the stipulations involved in achieving an information state. κ takes an information state s and derives a partitioned set including s as well its counterstances: each such counterstance is a set of worlds that represents *what the state would have been like given different contextually salient choices about how to resolve multidimensionality and evaluativity*. Elements belonging to a single partition π in $\kappa(s)$ are those in which *decisions about multidimensionality (but not evaluativity) are held constant*.

We have a formal model for deriving counterstances from information states, the key idea being that an information state can be understood as the result of a decision procedure that involves application of multidimensional and evaluative choice functions. Its counterstances are those states reachable by modulating the choice functions.

On our view, a context determines a tuple $\langle s, \kappa \rangle$, where s is the common ground and κ is the mapping from an information carrier to a partition of its salient counterstances. We claim that both *find* and *consider* entail belief in the prejacent, and presuppose the contingency of the prejacent relative to counterstances of the subject's doxastic state — which is just to say that belief in the prejacent is not based on objective information alone, but is rather based in a recognition that at least some alternative ways of resolving uncertainty in linguistic practice fail to preserve the truth of the belief. It is in this sense that *find* and *consider* denotes subjective attitudes.

Using the standard notation from Heim and Kratzer, we implement this analysis as follows, where $\text{DOX}(w,x)$ maps an individual x to the worlds compatible with what x believes at w :

- (5) a. $\llbracket \textit{believe} \rrbracket^{c,w} = \lambda p_{\langle w,t \rangle} \lambda x_e \text{DOX}(w,x) \subseteq p$
 b. $\llbracket \textit{consider} \rrbracket^{c,w} = \lambda p_{\langle w,t \rangle} \lambda x_e: \exists \pi \in \kappa_c(\text{DOX}(w,x)) \exists s \in \pi \text{ s.t. } s \not\subseteq p. \text{DOX}(w,x) \subseteq p$
 c. $\llbracket \textit{find} \rrbracket^{c,w} = \lambda p_{\langle w,t \rangle} \lambda x_e: \forall \pi \in \kappa_c(\text{DOX}(w,x)) \exists s \in \pi \text{ s.t. } s \not\subseteq p. \text{DOX}(w,x) \subseteq p$

(5a) gives a standard denotation for *believe*. The denotation for *consider* in (5b) effectively introduces the presupposition that the prejacent is contingent relative to some counterstance of the attitude holder’s doxastic state, which will be the case only if the prejacent includes expressions that introduce multidimensionality or evaluativity. The denotation for *find* in (5c) introduces the stronger presupposition that contingency persists even if we have resolved those aspects of indeterminacy that are subject to coordination (those stemming from MULTIDIMENSIONALITY, that is, matters of linguistic practice). This will be the case only if the prejacent introduces properly evaluative content. It follows from this analysis that if *find* p is acceptable in some context, so is *consider* p .

We thus explain the contrast between (1b)–(2b) as follows. (2b) is acceptable because differences in the criteria relevant for application of *vegetarian* across counterstances may impact the truth of the prejacent. (1b) presupposes that this impact persists even if we hold all relevant matters of linguistic practice constant, which will be the case only if the determination of the extension of *vegetarian* is sensitive to individual variation in experience. But this is not the case for a predicate whose applicability is determined by eating habits. It is, however, the case for a predicate whose applicability is determined by an experience of interest/engagement/curiosity/... like *fascinating*.

An important feature of our analysis is that whether a predicate is “counterstance contingent,” and so whether it can be used to express the object of a subjective attitude, is crucially discourse sensitive, and does not correlate with semantic type as in Sæbø 2009 (a position that is criticized in Bouchard 2012). It may of course correlate with certain features of lexical semantics, such as the experiential semantics of taste predicates or the threshold semantics of vague predicates, but it may also depend entirely on practices of use, and it can change over the course of a conversation depending on how multidimensionality and evaluativity are resolved. Thus we see that in German, in which subjective *find* embeds full clauses, the sentence in (6) sounds acceptable in the immediate aftermath of a debate, when evaluativity remains unresolved, but it sounds odd once an exhaustive set of poll results have come in, effectively resolving evaluativity.

- (6) Ich finde, Obama hat die Debatte gewonnen.
 I find that Obama won the debate.

Similarly, in English expressions that denote purely quantitative properties like *heavy*, *dense* and *light* can also take on qualitative meanings when used to describe objects that engage with sensory or aesthetic experience (like food, music or literature; see Kennedy13). When embedded under *consider*, both the quantitative and qualitative senses are available: (7a) can be used express either Kim’s judgment that the actual weight of the sauce is above a threshold for *heavy* (contingent relative to counterstances with different thresholds), or Kim’s judgment that the sauce generates a feeling of heaviness in the stomach (contingent relative to counterstances with different evaluations). In contrast, only the qualitative sense is available for *find* in (7b).

- (7) a. Kim considers the sauce heavy.
b. Kim finds the sauce heavy.

This difference follows from the different presuppositions of *consider* and *find*, but it does not entail a substantive semantic difference between the quantitative and qualitative uses of *heavy*; it is enough that our conventions for using the word are consistent with both multidimensional and evaluative uncertainty.

Conclusion We have proposed an analysis of subjective attitude verbs as expressing counterstance contingent beliefs: beliefs that are based in a recognition that their truth is not preserved under alternative ways of resolving contextual underdetermination of the features relevant for fixing meaning. Our analysis is compatible with different formalizations of these features (e.g., relativist vs. contextualist vs. epistemicist), and indeed does not presume that they are homogenous. Indeed, if our analysis is correct, it suggests that subjectivity in language, as a general phenomenon, is not to be explained strictly in terms of any particular semantic parameter, implicit argument, or lexical underspecification, but rather emerges from language users' awareness of counterstance: that the choices they make about how to resolve these features in the course of constructing a common ground could have been different. Additionally, it provides a formal characterization of the "two types" of subjectivity pointed at in work by Kennedy, Fleisher, Bylinina and others, which emerges in the variable acceptability of predicates under *find* and *consider*.

References

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