Interpretation as Optimization: (So-called) Privative Adjective Constructions

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Privative adjective constructions include adjectives like *fake* and *counterfeit*. According to the traditional classification of adjectives [Kamp and Partee, 1995], composite structures involving these modifiers have an extension that has no overlap with the extension of the noun. For example, a fake gun is not in the positive extension of *gun*. However, Partee has recently argued, on the basis of NP-splitting phenomena in Polish, that there are no privative adjectives [Partee, 2003, Partee, 2010]. Everything that we would have called a privative adjective is really just a subsective adjective construction that has been coerced. While this is a compelling proposal, the proposed coercion operations has yet to be explored in detail. I argue that Partee's coercion operation reduces to optimization over conflicting constraints on interpretation. To formalize this account, I deploy a default logic [Reiter, 1980] where each constraint on interpretation corresponds to a default rule.

Part of Partee's proposal rests on the fact that expressions such as (1) seem felicitous, which is unexpected given the traditional account of privative adjectives.

(1)   Is that gun real or fake?

To account for this fact, Partee has suggested that *gun* is coerced to include both guns and non-guns when it occurs in the presence of modifiers like *real* or *fake*. After coercion, the expression is interpreted subsectively. One complication with this proposal is that it seems false to say that *gun* is coerced to include all guns and non-guns given that this expression would be infelicitous if the speaker had chosen a fork as a referent of *gun*, but this is predicted to be acceptable given that *gun*, in this instance, refers to guns and non-guns. This raises an additional question that my proposal will help to resolve: What are the limits of the proposed coercion operation?

I propose that every adjective or noun contributes constraints on interpretation that are derived from the constituent's lexical entry. For example, *gun* would contribute a constraint on interpretation, derived from the telic component of the lexical entry [Pustejovsky, 1995], that requires that the intended referent be capable of firing a bullet. Similarly, the modifiers *fake* and *counterfeit* would contribute constraints on interpretation that target dimensions of the qualia structure of the noun [Pustejovsky, 1995]. Specifically, I propose that *fake* contributes two constraints on interpretation: (a) The intended referent does not have the function (telic quale) specified by the noun and (b) The intended referent does not have the source/origin (agentive quale) specified by the noun.

To interpret the expression "fake gun", we iteratively enter these constraints, construed as default rules, into the theory. This constrains the extension to the class of entities that do not have the function or origin specified by the noun. After entering these constraints into the theory, we iteratively enter each of the constraints, construed as default rules, contributed by the noun. Since the theory already contains expressions derived from the default rules contributed by *fake*, only the default rules that correspond to properties that are compatible with not having the origin or function of a gun will be entered into the theory. The resulting theory is modeled by a set of entities that have all the properties of a gun that are compatible with not functioning as a gun and not having the origin of a gun.

The proposed formalism has several useful consequences. First, it accounts for the felicitousness of sentences like (1). Since all adjectives and nouns are interpreted as collections of constraints on interpretation, *gun* is permitted to refer to the most gun-like, contextually salient entity, which may or may not be a gun. Importantly, this interpretation strategy accounts for the infelicity of (1) when

the speaker is referring to a fork, which is unlikely to be the most gun-like entity in the context of the discourse. Second, the proposed formalism can be viewed as an augmentation of the standard compositional account, rather than a replacement. On the standard compositional account, adjectives are functions from properties to properties [Parsons, 1970, Kamp, 1975, Heim and Kratzer, 1998] . In the proposed framework the resulting property is just the characteristic function of the derived extension. Third, the coercion operation is limited by the constraints imposed by the noun. Coercion, on this account, must result in a class of entities that satisfies some subset of the constraints imposed by the noun. Finally, the proposed account "builds-in" the Non-vacuity Principle given that optimization will always converge on a winning candidate, which in this instance amounts to an extension for the composed expression.

References

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