

Generics Introduction

Erik Hoversten

February 27, 2017

1 Attempt 1

The topic of this discussion is the class of English bare plural sentences. These are sentences that are plural in the sense that the NP denotes something other than an individual and bare in that the NP is not fronted by an article. As our stalking horse, take:

- (1) Bears are dangerous.

More vulgar linguists like to take things at face value, and they'll maintain that bare plurals are of simple subject-predicate form, with the copula expressing instantiation. Semantically, instantiation of a predicate by a subject is cashed out in terms of set membership: The denotation of the subject phrase is a member of the set expressed by the predicate phrase.

If *are* means predication in (1), then there must be an object to which Bears refers. The simplest such object is the composite of all the members of the class of bears. So, the vulgar linguist is committed to countenancing such pluralities; metaphysically brash, perhaps, but the vulgar needn't be ontological ostriches.

The higher order contends that the vulgar must submit to the fact that their class is fractured twice over. Bare plurals are a class divided between those sentences read existentially and those read generally. (1) exemplifies the latter reading. The former is relevant for (2):

- (2) Bears are in the berry patch.

The existential reading could perhaps be given a predication semantics (though the higher order would prefer they incorporate existential quantification), but the general variety obstinately resists any such attempt. For the plurality formed from the individuals in the subject class needn't be a member of the predicate class, as is demonstrated by the truth of (3) despite the existence of non-hibernating bears.

- (3) Bears hibernate.

And the fracture runs deeper still. For while all generally read sentences are equal, some are more equal than others. Compare (1) with (4):

(4) Bears are widespread.

While (1) makes a claim about the members of the subject class generally, (4) makes a claim about the class as a whole. Individual bears are dangerous, but no individual bear is widespread. (1) is an example of a characterizing generic while (4) is a direct kind generic. The key claim of the higher order is that this conceptual difference exerts itself in the linguistic representation of these sentences.

There is a vulgar resistance movement, but as with most resistances, their efforts at independence begin to look more like assimilation. Kathrin Koslicki (1999) has argued that characterizing and direct kind generics will submit to a uniform predication analysis under two qualifications:

- Plural subjects are understood conceptually, which is to say that they denote the members of the class individually (though all at once).
- Generalization over individuals reappears at a second level of analysis. The LF of generic sentences is uniform across the readings, but the lexical semantics of the two types of NP varies greatly.

David Liebesman has argued that the predication account can be pressed into work for both styles of generic with one qualification and one shift tho the division of labor in sentence understanding.

- Plural subjects denote kinds, a *sui generis* ontological type distinct from its members but subsuming them all.
- The appearance of generality is delegated to the metaphysics of property instantiation by kinds.

Both attempts, while mounting a noble resistance, concede too much for my liking. Their efforts to secure grammatical simplicity lead them to a baroque expansion of vocabulary. Koslicki is forthright in her flouting of Grice's Razor. She accepts that the same NP can contribute different values depending on its surrounding linguistic context, principally, the predicate concatenated to it. Liebesman's trespasses aren't evident from the predicate-sensitivity of generic bare plurals. Different conditions for instantiating predicates can be operative for one and the same object. Even Koslicki's violation of our semantic innocence could perhaps be overlooked if they were isolated and governed merely by predicate choice. But the vagaries of generality aren't merely predicate-sensitive. They are pervasive and widely sensitive to extra-sentential context. In addition to their quirkiness, generics are also contextually fragile.

Quirkiness different subject-predicate pairs give rise to different demands on generality.

Fragility extra-sentential context gives rise to different demands on generality.

I wish to wage a full out assault on the higher order, and the mechanisms of plural predication provide adequate weapons for the cause. Hoes and shovels, if wielded in defense of elegance, can carry more power than the advanced weaponry of the higher order.

2 Attempt 2

Viewed as a distinction between speaking about individuals generally and the group as a whole, the characterizing/direct kind distinction is parallel to the distributive/non-distributive distinction already familiar from the literature on plurals. What apparently distinguishes the case of characterizing generics, in contrast to the distributive construal of plurals, is that the predicate needn't apply to each member of the subject class in a characterizing generic sentence. In fact, the bulk of research on generics has centered on the project of locking down the requisite proportion of the class that must satisfy the predicate and establishing a method for determining it for each sentence.

But even in this regard, characterizing generics are not unique. For plural predication generally admits of intermediate construals, only partially distributive.

1. EXAMPLE

It is this observation that leads Roger Schwarzschild to argue in favor of a reductive account of distributivity in terms of contextual domain restriction over sets closed under plurality formation. I maintain that the same mechanisms that allow for a uniform analysis of distributive and non-distributive construals of plurals can be leveraged to provide a uniform analysis of characterizing and direct kind generics at all levels of analysis.

I first present Schwarzschild's proposal in enough detail to expose the path forward for a similar account of generics. We'll see that the role of context that is already proposed to capture the vagaries of distributivity can be leveraged to capture the quirkiness of generics. It is also the right tool to make sense of the fragility of generics. Though, capturing this requires us to examine more deeply the role of pragmatics in discourse evolution.

3 Attempt 3

> Start with the story introduced by Schwarzschild (1994):

Semantic theories recognize the existence of pluralities, entities composed of individuals, on the basis of sentences such as:

1. Bears got into the picnic basket

The argument in favor of pluralities stems from cumulative inferences. Consider:

2. Yogi got into the picnic basket
3. Booboo got into the picnic basket
4. Therefore, bears got into the picnic basket.

We could treat plural subjects like bears as being paraphrasable as everything that is in the (contextually constrained) class of bears, and then noting that both Yogi and Booboo are salient in the inference (and no others are), the conclusion follows. But this approach to plural subjects fails to render the following valid:

5. Yogi bothered the only the Clapper party.
6. Booboo bothered the only the Jones party.
7. Therefore, bears have been bothering multiple campers.

For neither bear bothered multiple campers.

If, alternatively, plural subjects are taken to denote pluralities, the extension of plural predicates is taken to contain pluralities, then we can equally generate both inferences. We need, additionally, to treat plural predicates as closed under plurality formation from individuals in the set. Plural predicates already must contain individuals to account for the falsity of Seen in a situation in which only one black bear has been seen.

8. Seen: No black bears have been seen in the area.

The situation is complicated by the fact that plural predications are subject to different readings. Consider:

9. Yogi ate 5 pounds of berries.
10. Booboo ate 5 pounds of berries.
11. Therefore, bears ate 10 pounds of berries.

There is a reading of the conclusion, where the inference does not go through. This is the reading on which we are considering the predicate to distribute to each of the individuals in the plurality denoted by the subject. Since neither bear ate 10 pounds himself, the inference fails on this reading.

One option would be to take plural predicates to be ambiguous between closed and non-closed versions. Alternatively, Schwarzschild shows us that we can treat plural predicates as uniformly closed, while subject to contextual variation that generates the non-distributive readings. Schwarzschild's unification requires added complexity in the semantic and pragmatic structure of the language [EXPLAIN SCHWARZSCHILD'S DEVELOPMENT].

But this complexity is worth it. For plural predications aren't just subject to well-partitioned distributive and non-distributive readings. Instead, plural predications are subject to both mixed and intermediate readings.

- 11. Intermediate: Readings in which the predicate is only paritally distributed
- 12. Mixed: Sentences for which multiple readings are available.

Intermediate readings threaten massive ambiguity, where a different closure principle applies and generates a vast number of readings. Distributive and non-distributive readings are just extremes on a potentially dense spectrum. Mixed readings threaten systematic misunderstanding or talking past. If you intend a distributive reading, but I take it as non-distributive...

The contextualist approach, on which contextual features impose different restrictions on the one plural predicate extension, can account for both intermediate and mixed readings.

Variable distributivity isn't the only complication with plural predications. For it is often claimed that plural sentences for a class fractured twice over. The existential group, like those considered above, is distinguished from the superficially similar:

- 13. Danger: Bears are dangerous.

If uttered in a context in which no specific bears are salient, this sentence is naturally read as making a claim about the class of bears generally. Even more, these generic readings are not uniform. While characterizing generics, such as Danger are natrually viewed as making a general claim about the individuals that fall under the predicate, direct kind generics, such as Widespread seem to predicate something of the group (or kind) of which the individuals are members.

- 14. Widespread: Bears are widespread.

Let's call the first reading, bottom-up and the second top-down. It is commonly assumed that the difference presents itself in the logical form of the two types of sentence:

- 15. Top-down: $P(k)$
- 16. Bottom-up: $\text{Gen}(K)(P)$

Top-down sentences involve direct predication of a property to a kind, whereas bottom-up sentences are given a tri-partite structure with a specialized, generic quantifier imposing a relationship between the domain (restricted by the subject class) and the predicate class.

I take these two views on plural predication to be construals as opposed to readings because it isn't so clear that psychology supports a conceptual distinction between the two views. [STUDIES ON ABSTRACTION]

Most of the discussion of generics centers on the quirkiness of characterizing generics. While it is presumed that all involve bottom-up generalization over individuals, there is immense diversity in the force of that generalization. Some are best paraphrased with a most quantifier, but some seem only to demand a significant proportion and still others are true despite there being only a few witnesses.

But generics aren't just quirky, they're also subject to mixed readings, and they're fickle.

- 17. Mixed: A single sentence can be read as either top-down or bottom-up depending on the context.
- 18. Fickle: Generics are susceptible to correction, but also resilient in the face of challenge.

Fickleness suggests systematic talking past and misunderstanding, unless we can provide a uniform account that allows for modification over the course of conversation.

I'm aware of 2 proposals that attempt unification from the top-down. Both succumb to the fickleness of generics