

What Can Be Ground? Noun Type, Constructions, and the Universal Grinder

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Most accounts of the mass/count status of nominals are built on one of two hypotheses: (i) the contextualist hypothesis, wherein a noun is taken to be flexible as to whether it is realized with mass or count morphosyntax, which is in turn determined largely by context (Pelletier 1979, 1991; Borer 2005) and (ii) the intrinsic hypothesis, wherein nouns are taken to have intrinsic semantic content from which a noun's status, as e.g. mass, follows (Wierzbicka 1988). Crucial evidence for the contextualist hypothesis, and against an unconstrained version of the intrinsic hypothesis, is provided by the thought experiment known as the "Universal Grinder" (Pelletier 1979), whereby count nouns, within particular morphosyntactic contexts, surface as mass expressions, as shown in (1).

(1) There is apple in the salad./There is squirrel all over the highway.

Despite its central role in argumentation in the mass/count literature, the "universality" of the Grinder has not been systematically investigated. Nevertheless, it has been observed that this operation is restricted, as shown by the unacceptability of (2) (see also Cheng et al. 2008 for the limitations of the Grinder in Mandarin):

(2) #Would you care for some more pea? (Fillmore 1989: 49)

Here we investigate the grinding operation across a variety of nominal types and constructions, yielding results implicating that an unconstrained version of the contextualist hypothesis is also problematic. The results suggest that the overall felicity of Grinder sentences reflects the relationship between situational contexts and the type of noun at issue: these in turn reflect both intrinsic nominal properties and world knowledge conventionally associated with the referents of nouns.

Experimental Design: Each participant rated seven Grinder and eight filler sentences on a 7 point Likert acceptability scale. Stimuli were created using three Grinder construction types, each of which had two variants, as shown in (3). Grinder sentences were then completed with one of five nouns from seven different noun types (making 35 nouns in all). Noun types were chosen to capture a spectrum of individuation based on complexity, animacy and size including: group terms (*swarm, bouquet*), shapes (*sphere, cube*), simplex artifacts (*hammer, pencil*), complex artifacts (*car, computer*), animals (*squirrel, butterfly*), and foodstuff (*steak, pea*). An example stimulus item is shown in (4). 290 subjects saw a counterbalanced subset of the total 210 stimuli.

(3)

There is <i>NOUN</i> in the bread	There is <i>NOUN</i> all over the floor	A robot eats <i>NOUN</i>
concrete	highway	A termite

(4) [There is [*cracker*]_{noun} in the [**bread**]_{variant}]_{construction}.

Results: Surprisingly, even though such Grinder sentences are cited as acceptable in the literature, they were on average given quite low acceptability ratings: 2.331/7 (SD 1.806), cf. an average of 5.679/7 (SD 1.848) for filler sentences. We found that the acceptability was affected by the noun types, as shown in (5), with the types arranged from lowest to highest acceptability ratings. In contrast, neither the different constructions nor the variants thereof reliably influenced acceptability.

(5) group terms < {shape, simplex artifacts, complex artifacts} < animals < foodstuff

This result argues for a more nuanced view of the semantics of nominals than a purely contextualist view would permit: noun referents may be ground, but the success of this operation is dependent on the noun type. While most noun types were rejected by our participants, foodstuff and animals were no doubt more felicitous due to their conventional associations, viz. the dual life of food nouns as natural entities and processed food stuff and of animate nouns as natural entities or their flesh (see Jakobson 1936). The other nouns of the other types do not regularly show such dual associations.

While this experiment covered the core constructions discussed in the literature, we note that the same issues arise with other constructions, such as comparatives, where group nouns, among others, have difficulty achieving felicity, see (6). Interestingly, such nouns were the most resistant to grinding in the constructions we examined.

(6) #The Giants have more team than the Rangers. (cf. a larger team)

Outlook: The results demonstrate that there is an interaction between noun type and construction which contextualist theories of the mass/count distinction do not speak to. While this argues against the claim that nouns vary arbitrarily between count and mass determinations, or that that all nouns could be underlyingly mass (Borer 2005: 94), it also opens new territory for further investigation: understanding the well-formedness of a mass or count expression as an alignment between construction and noun type.

References

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