

On Semantic Properties of Entities: Specificity and Boundedness

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According to William Frawley's *Linguistic Semantics*, the traditional notion to define a noun as a person, place or thing is inherently inadequate. This is due to the fact that there are nouns that do not fit this category such as peace and economy. While not all nouns fit the traditional definition, reversing the claim does nearly hold true; persons, places, and things are almost always nouns. To expand this initial limited definition, Frawley submits that entities are encoded in nouns. A definition of an entity can be defined as, "an individuated, relatively atemporal region in conceptual space (pg. 69)." Of eight in totality, two phenomena specificity and boundedness are examples of semantic properties found in entities.

Specificity

One entity that languages often encode in their treatment of nouns is specificity. Specificity refers to the degree of individuation signifying its uniqueness or relative singularity of the denotation. The use of specificity may incorporate distinct effects when examined in a sentence producing either a specific result or nonspecific one. Consider the following sentence 'I need an essay for class.' On one hand, the word essay may refer to a specific topic to be written about. On the other hand, the word essay may nonspecifically suggest any essay will do. These specific/nonspecific distinctions have underlying moods that embody them. Specific or referentiality is indicative of actual moods. Actual moods include represented verifiable information. This can be seen in the specific reading of 'I need an essay for class,' a specific essay being verifiable. Conversely, Nonspecific or a lack of referentiality is indicative of nonactual moods. Nonactual moods are unreal or yet to be verified information. So with the nonspecific reading of 'I need an essay for class,' we see that any essay does not refer to any real

essay or one that is yet to be determined. The degree of individuation is just one of many basic characteristics of specificity another is called definiteness.

In addition to the degree of individuation, specificity is connected to definiteness though not simply by semantic factors. “Definiteness is conditioned by nonsemantic factors (pg. 75).” These factors are seen in purely syntactic characteristics and are sensitive to what can be described as a preference in certain constructions to acquire either definite or indefinite nouns. This preference is called the Definiteness Effect. The scale in definiteness starts with definites, which are mostly specific, existing with definite determiners, numerals and quantities. In the middle of the scale are indefinites, which may be specific or nonspecific. Finally, we have generics, which like indefinites are either specific or nonspecific. Additionally, definites tend to be associated with given information and indefinites tend to be associated with new information.

Consider the preference that the Definiteness Effect imposes on the sentence: There is a cat in the refrigerator. A cat in this existential claim is either necessarily indefinite/nonspecific or generic/nonspecific. Here, the indefiniteness seeks to provide the hearer with new information, a cat is assumed not in the receiver’s consciousness. The indefiniteness of the cat disappears, however, in the sentence: The cat is in the refrigerator. Here the interpretation becomes definite/specific or generic/specific. By encoding definiteness, the cat is assumed to be a given and already on the mind of the hearer. Examples such as these illustrate how specificity in entities tends to encode definiteness and nonspecificity tends to encode indefiniteness.

Boundedness

In defining entities as a relatively atemporal region in conceptual space, the region may be said to either have a determinable limit or not have one. Specifically we find that bounded

entities have a determinable limit and unbounded entities do not have one. Determinable limits are essential in examining boundedness. Consider the following sentence: The beer spilled. Constructing a bounded interpretation would entail ‘a specific kind or quantity of beer spilled.’ Interpreting the sentence as ‘some beer spilled’ would render the entity unbounded because it would suggest that an unknown amount of beer spilled. This example shows the distinction between bounded and unbounded interpretations. Of bound, there are four features that can be described.

The first of four features of the bounded is that it encodes delimitation only within ordinary discourse such as use of the word vibration. To speak of a vibration, the vibration, two vibrations, and so on is to encode boundedness because it is limiting vibration to a specific number of occurrences. Alternately, if one is to speak of vibration in technical discourse the entity may become unbounded as in the phrase: some vibration. As an unbounded phrase, some vibration renders the entity to a continuous string of movement that does not have a limit.

The second feature of boundedness is that it may encode virtual as well as real aspects. Virtual entities have no material existence but are still bounded. Examples of virtual entities are: conclusion, voice, and war. These virtual entities can be pluralized, counted, and unitized but are still bound. Real entities such as computer and book when pluralized are also still bound as well.

The third feature of boundedness is that it is an inherent feature of entities and does not have to be extracted from linguistic context. Consider the verb swap. This verb encodes an inherently bound limited duration that is necessarily punctual but despite its boundedness it may take on either a bounded or an unbounded entity. If it were necessary for a bound verb to take on a bound entity the sentence ‘I swapped the front row of cars’ would work but a sentence like ‘I swapped cars’ would not work. This is clearly not the case because both are allowed. This shows

that boundedness is not inherited by events rather it is a property of semantic representation of entities.

The final feature reveals that boundedness is fuzzy. “Bounding is fuzzy, and thus it is possible to override it (pg.82)” To elaborate on this notion, consider the entity beer again. Beer is a bounded entity under ordinary circumstances but if we spill the beer it may then become unbounded as in the sentences ‘there is beer everywhere’ and ‘there is not much beer on the carpet.’ Sentences such as these suggest an unspecified or unbounded amount of beer. This example of a bound entity taking on unbound characteristics shows that boundedness can indeed be fuzzy.

In addition to these four features of the bounded, there are three further features where bounded as well as unbounded entities diverge, the first being internal homogeneity. Consider the entity water. In its bound state it is inherently composed of composed of separate parts and is conceptually heterogeneous, water being comprised of one part oxygen and two parts hydrogen. In its unbounded state, water is merely homogeneous and does not suggest the specific constituents that are water.

Bounded and unbounded entities diverge on two other aspects, expansibility and replicability. Expansibility in bounded entities cannot occur because if expanded or contracted they lose their status as a particular entity. Continuing with the example of water, if we take away the hydrogen in water we no longer have water. However, in its unbounded state subtracting some water (when viewed as a mass of water) just leaves us with less water than when we started, therefore we still have water as it existed before we subtracted some.

Replicability dictates that bounded entities can be repeated but unbounded entities cannot be repeated. Repetition of the unbounded water results in ‘more water’ and is interpreted as more

of the same entity. Repetition of the bounded water results in ‘more waters’ and is interpreted as another instance of the same entity. This shows how water in its unbounded state becomes incremented continuously but not repeatedly as in the bounded state.

Conclusion

To summarize this discussion, entities are encoded within nouns and contain atemporal regions of conceptual space. Specificity and boundedness are two of eight phenomena that may encompass the semantic properties of entities. “Specificity refers to the uniqueness, individuation, or referential accessibility of an entity in a mentally projected world (pg. 80).” Specificity and nonspecificity can be explored through actual moods as well as nonactual moods. Boundedness refers to the inherent delimitation of entities. Characteristics of boundedness include virtual bounding, fuzziness, and expandability. Both specificity and boundedness are intrinsic to the nature of entities and are important to understanding their characteristics. Without such characteristics we would be left with the unsatisfying archaic definition of the noun: a person, place, or thing.