Maximality Mimics Exhaustivity: A Case Study of Dake ‘only’ in Japanese

Different semantics strategies sometimes lead to the interpretations that are indistinguishable (e.g., a definite plural vs. a universal quantifier). In this talk, I present another such case: the apparent exhaustive expression dake ‘only’ in Japanese. Kuno (1999) and Yoshimura (2007) noted some instances where the exhaustive meaning of dake is much weaker than that of the other ‘only’, the NPI sika...nai. Previously unnoticed, however, is the effect of clefting: the clefted dake exhibits the exhaustivity comparable with the NPI ‘only’. The relevant paradigm is shown below.

1) Context: Why didn’t Daisuke get that job?
   a. ?? nihongo-dake hanas-eru-kara-desu.
      Japanese-DAKE speak-can-because-be
      ‘Intended: Because he can speak only Japanese.’
   b. nihongo-shika hanas-e-nai-kara-desu.
      Japanese-SHIKA speak-can-Neg-because-be
      ‘Because he cannot speak any languages other than Japanese.
   c. hanas-eru-no-ga nihongo-dake-da-kara-desu.
      speak-can-NML-Nom Japanese-DAKE-be-because-be
      ‘Because Japanese is the only language that he can speak.’

The use of an ‘in-situ’ dake in (1a) is surprisingly inadequate in the context above, while sika...nai and the clefted dake are perfectly felicitous. Kuno’s and Yoshimura’s accounts are similar in that they take the exhaustive meaning of dake to be secondary or not-at-issue. Both authors take it for granted that the exhaustivity is a part of the meaning of dake, and the critical issue for them is what kind of meaning category it belongs to. I offer an alternative analysis in which the exhaustivity (= the negative quantification over non-weaker alternatives in the sense of Fox 2007) is all together absent in dake. I argue that the exhaustive-like meaning has a root in its use as a degree expression, roughly paraphrased as ‘the extent of’, which is strengthened by the maximization commonly associated degree expressions (cf. von Stechow 1984, Rullmann 1995).

Historically, dake derives from take, which means ‘height’ or ‘length’ (cf. Futagi 2004), and its degree meaning is well retained to this day in such expressions as dekiru-dake, can.do-dake, ‘as much as possible’, dore-dake, which-dake, ‘how much/many, to what extent’, moteru-dake-no yasai, can.hold-dake-Gen vegetable, ‘as many vegetables as one can hold’, etc. (Incidentally, there are other exhaustive-like expressions that are also degree-based: X-bakari ‘only X’ comes from the verb hakaru ‘to measure’, X-kagiri ‘X (and no more than X)’ is derived from kagiru ‘to limit’.) Under the degree analysis of dake, X-dake is roughly paraphrased as ‘up to X’ or ‘as many/much as X’. The proposed interpretation of dake is (2a), which in effect gives the definite plural denotation for the second argument (=P).

2a. || dake || = λx.λP. max(P) = x

b. || Mari-dake-ga kita (Mair-dake came) || = 1 iff the maximal entity that came is Mari.

The degree account must be augmented with an additional ingredient, however. Consider the following example.

   Aya-and Saki-and Eri-DAKE-Nom exam-Dat passed-Past
   The maximal individuals who passed the exam are Aya, Saki and Eri.

3b) is compatible with a situation where Aya, Saki and Eri are all the students who took the exam. Clearly, 3a) is totally inappropriate in such a situation. To derive the infelicity of 3a), I adopt the ‘mirative’ analysis
of focus particles in English by Zeevat (2009), who argues that the semantic contribution of some of the focus particles is the sense of surprise/unexpectedness: even means more than expected, only, less than expected, already, earlier than expected, still, later than expected, etc. I suggest that a sentence with dake elicits the meaning that the argument of dake was less than expected/some salient standard of comparison. With this additional meaning, the interpretation of (3a) is ‘the maximal individuals who passed the exam are Aya, Saki and Eri, and it was less than expected (e.g., more people were expected to have passed)’.

Obviously, the meaning of dake is similar to that of ‘only’. As far as the truth conditions are concerned, they are practically identical. However, dake lacks the explicit negative quantification over the alternatives, which accounts for the weakness of the exhaustive meaning associated with dake. Let us next examine why the clefted dake elicits the kind of exhaustivity comparable to sika...nai. First, the cleft construction involves focus, and when X–dake is in the focus position of a cleft sentence, it evokes a sense of contrast with ‘X as well as some others’. In other words, it is a case of polar contrast, as illustrated below.

(4) a. ukat-ta no-wa Eri-dake-desu.
   pass-Past NML-Top Eri-DAKE-be
   b. {Eri is the maximal of those who passed, Eri is not the maximal of those who passed}

Of the two alternatives, the former is chosen, and the latter is negated. This has the same effect as; (i) generate a set of scalar alternatives; X, X ⊕ Y, X ⊕ Z, X ⊕ Y ⊕ Z, and (ii) negate all except X. Therefore, cleft sentences with dake–phrases as their foci become equivalent to the usual semantics of only, which involves the negation of all the non-weaker alternatives.

The proposed analysis has many other advantages. The unexpected behavior of dake in a conditional sentence, noted by Kuno (1999), is no longer a surprise.

(5) sekai-ryokou-o suru-niwa, eigo-dake hanas-er-eba ii
   world-travel-ACC do-in.order.to English-DAKE speak-can-if good
   ‘In order to make an around-the-world trip, it is all right as long as (you) can speak English.’

If you replace dake with sika...nai, the sentence becomes infelicitous, just as the case with the English ‘only’. The degree semantics can make sense out since it means, ‘in order to make an around-the-world trip, if the maximal language that you speak is English, it is good (enough)’. Another interesting consequence is that dake is no longer focus-sensitive. While nothing can prevent it from being focused, the meaning of dake does not require a focus semantic value of its argument. This aspect of the analysis is in accordance with the experimental result of Kitagawa et al (2013), which shows that dake–phrases do not induce focus intervention effects at all, contrary to the predictions made by all the previous analyses including Beck 2006 and Tomioka 2007. If dake does not require the generation of focus alternatives, however, there is no obvious reason to expect it to act as an intervener, and the Kitagawa et al’s result is accounted for. It is also correctly predicted that dake and sika...nai can be combined (cf. Erlewine 2011). The combination of the two expressions does not involve the doubling of exhaustivity, as dake is merely a degree expression.

Partial References