Types of Kind-referring BSs and Pseudo-Incorporation

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0. The puzzle

Hindi (H) and Brazilian Portuguese (BrP) are alike insofar as they allow bare singulars (BSs) in argument positions to take both existential and kind-referring readings (Dayal 2004, 2011for H and Munn & Schmitt 1999, 2005, Schmitt & Munn 2002 for BrP). However, the two languages differ insofar as Hindi kind-referring BSs behave on a par with English singular definites (Dayal 2004), whereas in BrP, kind-referring BSs show the behavior of English BPs (Dobrovie-Sorin & Pires 2008). This difference cannot be explained within neo-Carlsonian analyses such as those proposed by Dayal 2004 for H or Pires & Rothstein's 2011 for Br. The goal of the presentation is to show that the semantic difference between generic BSs in Hindi and BrP can be reduced to a syntactic parameter regarding Number features. As a terminological note, the label 'BS' should not be understood literally as meaning (morpho-syntactic or semantic) 'singular' but rather 'count bare noun that is unmarked for morphological Number'.

1. Kind-referring BSs in Hindi and Brazilian Portuguese

The example in (1) shows that BSs in H refer to 'singular kinds' (see *the dog*, *the bear*, etc. in English), while (2) shows that kind-referring BSs in BrP refer to 'plural kinds' (see bare plurals (BP) in English):

(1) kutta aam janvar hai (Dayal 2004, ex. 14a)
dog common animal is 'The dog is a common animal'

(2) Pedreiro é preguiçoso. (Dobrovie-Sorin & Pires 2008)
Bricklayer is lazy. 'Bricklayers are lazy.'

This difference cannot be accounted for within neo-Carlsonian approaches according to which kind-reference is obtained by applying a type-shifting operator to the output of the Lexicon, i.e., to an NP constituent that lacks any functional projection. Thus, according to Dayal (2004), kind-referring BSs are obtained by applying the Iota operator to a singular (or rather unmarked) count NP. The problem is that under this view we would expect kind-referring BSs in BrP to behave on a par with BSs in H. The only way out is to assume that count NPs may differ *in the Lexicon* from one language to another: BSs in H would be singular, i.e., they would denote a set of atoms, whereas BSs in BrP would be either 'number-neutral', i.e., they would denote a set that contains pluralities in addition to atoms (Müller 2002) or 'mass' (Pires & Rothstein 2011). Due to their number neutrality (or 'mass-like' nature), BSs in BrP allow an application of the Down operator, which yields the type of kind-reference characteristic of English BPs (Dobrovie-Sorin & Pires 2008). Lexical parameters are however stipulative and theoretically undesirable. Moreover, the role of number neutrality needs to be clarified, since according to Dayal's (2004, 2011) description, Hindi BSs also allow number neutral readings. Finally, neo-Carlsonian accounts are problematic insofar as they cannot capture interesting generalizations regarding the correlation between the existential and the kind-referring readings of BSs.

2. Number-neutrality and Pseudo-incorporation

As is clear from Dayal's (2004, 2011) description, the number-neutrality of Hindi BSs is related to pseudo-incorporation: pseudo-incorporated BSs are number-neutral property-denoting expressions NPs, whereas non-pseudo-incorporated existential BSs can only refer to atomic individuals. This generalization does not hold for BrP, where it can be shown that there exist number-neutral BSs that are not pseudo-incorporated. A clear minimal pair is shown in (3):

(3) a. #caaro taraf *bacca* khel rahaa thaa (Dayal (2004, ex. (1a))
four ways child play PROG PAST "The (same) child was playing everywhere."
[my gloss: 'everywhere a child was playing']

b. da toda parte estava brincando menino. (BrP)
everywhere was playing child
'There were children playing everywhere'.

We can thus conclude:

(4) Non-pseudo-incorporated existential BSs are interpreted as singular in Hindi but as number-neutral in BrP.

In the remaining part of this abstract we will only be interested in non-pseudo-incorporated BSs, which are the only relevant ones for our initial puzzle regarding the difference between kind-referring BSs in Hindi and BrP (Note that the theory(ies) according to which pseudo-incorporated BNs are kind-referring are orthogonal to this puzzle).

3. Bare Singulars and Number

My syntactic implementation relies on the following assumption:

(5) Existential BSs (in both Hindi and BrP) are Quant(ity)Ps.
Genuinely bare NPs can only occupy predicate positions or be pseudo-incorporated.

Examples of QuantPs are nominal constituents headed by MeasurePhrases (*2kg, a dozen*, etc.) or cardinals (*one, two, three*, etc.). Such expressions, and most clearly those QuantPs headed by Measure Phrases, are necessarily weak indefinites, which can be analyzed neither as property-denoting (see Dobrovie-Sorin & Beyssade (2012)) nor as fully argumental. The idea that such expressions are neither NPs nor full DPs is therefore plausible and in fact has been proposed for existential BPs by Farkas & de Swart (2003). The present proposal differs from theirs insofar as I have replaced NumP by QuantP, which allows me to extend the proposal to weak indefinites in general. I assume Number to be a feature (rather than a projecting functional category) that attaches to one of the functional categories inside the DP (Dobrovie-Sorin (in press)).

Existential Bare NPs, in particular BPs and non-pseudo-incorporated BSs (in both Hindi and BrP), are QuantPs headed by a null Quant, notated $[_{Quant}Ø]$ below:

(6) a. $[_{Quant[-sg,\ -pl]}Ø]\ [NP_{mass}]$ mass bare NPs (Hindi, BrP, Engl)
b. $[_{Quant[pl]}Ø]\ [NP_{count}]$ bare plural NPs (Hindi, BrP, Engl)
c. $[_{Quant[sg]}Ø]\ [NP_{count}]$ BSs (Hindi)
d. $[_{Quant[-sg,\ -pl]}Ø]\ [NP_{count}]$ BSs (BrP)

The representations in (6c-d) capture the empirical generalization stated in (4): BSs differ in their Number features in Hindi and BrP. Time-permitting, I will show that Dayal's (2004) argument against treating Hindi BSs as weak singular indefinites is not conclusive.

4. Number and Kind-reference

Our initial puzzle can now be solved by assuming that kind-referring expressions are full DPs in which QuantP is governed by Det, which gets interpreted as either the Iota or the Down operator.:

(7) a. $[_{Det}\ \iota\ [_{Quant[sg]}Ø]\ [NP_{count}]]$ BSs (Hindi)
b. $[_{Det} \cap\ [_{Quant[-sg,\ -pl]}Ø]\ [NP_{count}]]$ BSs (BrP)

The Iota operator applies to singular-marked QuantPs, as in (7a), an option that is not available to the Down operator (notated $\cap$ below): by virtue of Chierchia's 1998 definition, the Down operator cannot apply to sets of atoms but can apply to sets containing both atoms and pluralities, an option that underlies (7b). (see Dayal 2004 for the Down operator applying to mass NPs and Dobrovie-Sorin & Pires 2008 for the Down operator applying to number-neutral BSs). The configuration in (7a) yields either definite singulars or names of 'singular kinds' depending on whether the NP denotes a property of individuals or a property of kinds. Given (7a), Hindi BSs have the semantics of 'singular kinds', e.g., *The bear is a nice animal* in English (Dayal (2004)); (7b), on the other hand, explains why BSs in BrP have the same semantics as kind-referring BPs in English, e.g., *Bears are dangerous* (Dobrovie-Sorin & Pires (2008)).

Selected References. Chierchia, Gennaro 1998. Reference to Kinds across Languages. *NLS 6-4*, 339-405; Dayal, V. 2004, Number marking and (in)definiteness in kind terms. *L&P,* 393-450*;* Dayal, V. 2011 Hindi Pseudo-Incorporation, *NLLT*; Dobrovie-Sorin (in press) Number as a Feature, in Cardinaletti, Munaro, Giusti, Poletto, eds. *Functional Heads*, Oxford University Press; Dobrovie-Sorin, C. & R. Pires de Oliveira 2008. Reference to kinds in Brazilian Portuguese: definite singulars vs bare singulars, in Atle Grønn (ed.). Proceedings of SuB 12, Oslo:107-121; Müller, A. 2002. The Semantics of Generic Quantification in Brazilian Portuguese. *PROBUS* **14**: 279-298. Munn, A. & Schmitt, C. (1999), Against the Nominal Mapping Parameter: Bare nouns in Brazilian Portuguese. *Proceedings of NELS* **29**. Munn, A. & Schmitt, C. (2005), Number and indefinites. *Lingua* **115**: 821-855; Pires de Oliveira, R. & Rothstein, S. 2011. Bare singular noun phrases are mass in Brazilian Portuguese, Lingua 121; Schmitt, Cristina & Allan Munn (2002), The syntax and semantics of bare arguments in Brazilian Portuguese. *Linguistic Variation Yearbook* **2**: 253-269.