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Animacy, Specificity, and Verb Semantics. What Drives Differential Object Marking in Hindi?

सार्त्य वर्बेंके और आरीसीया पोन्नेत्

सजीवता, विशिष्टता और क्रिया शब्दार्थ। डिफरेंशियल ऑब्जेक्ट मार्किंग "को" हिंदी में किन कारकों से प्रभावित होता है?

Abstract This article aims to explore the dynamics of differential object marking (DOM) in Hindi. In Hindi, the *ko*-marking of the direct object (DO) is known to be influenced by two factors: animacy and definiteness or specificity. The marking of the inanimate object depends on the definiteness or specificity of the object. Unmarked inanimate objects can be interpreted as both definite and specific or indefinite and nonspecific, but when the inanimate object is marked with *ko*, it can only be interpreted as definite and/or specific. The definiteness/specificity opposition raises some questions: linguists do not seem to agree on which terminology to use. Some use definiteness and specificity as interchangeable concepts, others mention either definiteness or specificity, again others describe these factors as differentially influencing. This brings us to the following research question: do definiteness and specificity play different roles in the *ko*-marking of the DO? If so, which definitions of definiteness/specificity are pointedly applicable, and what are the different roles of these factors? Furthermore, how do they interact with animacy? Generally, animate arguments are marked with *ko*. However, Mohanan (1994) gives examples of animate nonspecific and indefinite DO's which are not *ko*-marked. Is this a rule or are there exceptions? Another influencing factor to be considered is the verb semantics. Several linguists describe that the *ko*-marking in Hindi also depends on the selectional properties of the verb. This asks for further investigation: does the DO of a certain verb always get *ko*-marked, and, vice versa, are there verbs of which the DO is never marked? To answer these questions, our

methodological approach will be twofold: firstly, we will perform a literature study of existing textbooks and grammars of Hindi to explore the different ways in which DOM in Hindi is being described and taught. Secondly, we will conduct a brief analysis of examples taken from the EMILLE corpus of Spoken Hindi[1] and the Corpus of Spoken Hindi[2] to find the frequencies of occurrence of *ko*-marked objects (as opposed to zero marking) and their correlation with the semantic parameters of animacy, definiteness, specificity and verb meaning.

Keywords Hindi, differential object marking, corpus linguistics.

सारांश इस लेख का उद्देश्य हिंदी में डिफरेंशियल ऑब्जेक्ट मार्किंग (डी ओ एम) अर्थात "प्रत्यक्ष कर्म को अलग-अलग ढंग से चिह्नित करना" की गतिशीलता का पता लगाना है। हिंदी में प्रत्यक्ष कर्म का "को" से चिह्नित होना दो कारणों से जाना जाता है: सजीवता और निश्चितता या विशिष्टता। निर्जीव वस्तु का अंकन वस्तु की निश्चितता या विशिष्टता पर निर्भर करता है। चिह्नित निर्जीव वस्तुओं की निश्चित और विशिष्ट या अनिश्चित और गैर-विशिष्ट दोनों के रूप में व्याख्या की जा सकती है, लेकिन जब निर्जीव वस्तु को "को" के साथ चिह्नित किया जाता है, तो इसे केवल निश्चित/विशिष्ट रूप में देखा जाता है। निश्चितता/विशिष्टता के अंतर से कुछ सवाल उठते हैं: भाषाविद इस बात से सहमत नहीं हैं कि किस शब्दावली का उपयोग करना है। जहाँ कुछ भाषाविद दोनों—निश्चितता और विशिष्टता—का उपयोग करते हैं, जैसे कि वे परस्पर परिवर्तनीय अवधारणाएँ हों, वहाँ अन्य या तो निश्चितता या फिर विशिष्टता का उल्लेख करते हैं और फिर कुछ इन कारकों के प्रभाव को अलग-अलग मानते हैं। यह बात हमें निम्नलिखित शोध प्रश्न पर ला खड़ा करती है क्या डी ओ की «को»-मार्किंग में निश्चितता और विशिष्टता अलग-अलग भूमिकाएँ निभाती हैं? यदि हाँ, तो निश्चितता/विशिष्टता की कौनसी परिभाषाएँ स्पष्ट रूप से लागू होती हैं, और इन कारकों की विभिन्न भूमिकाएँ क्या हैं? इसके अतिरिक्त उनका सजीवता से क्या लेना-देना है? आम तौर पर सजीव डी ओ "को" के साथ चिह्नित किया जाता है। हालाँकि एक भाषाविद (मोहनन 1994) सजीव गैर-विशिष्ट और अनिश्चित डी ओ के उदाहरण देती हैं जो "को" से चिह्नित नहीं हैं। क्या यह एक नियम है या क्या ये उदाहरण अपवाद हैं? एक और प्रभावशाली कारण क्रिया का शब्दार्थ है। कई भाषाविदों का मानना है कि हिंदी में "को"-चिह्नक क्रिया के चुनिंदा अर्थ संबंधी गुणों पर भी निर्भर करता है। प्रश्न यह उठता है कि क्या एक निश्चित क्रिया का डी ओ हमेशा "को" से चिह्नित किया जाता है, और, इसके विपरीत, क्या ऐसी क्रियाएँ हैं जिनके साथ डी ओ को कभी चिह्नित नहीं किया जाता है? इन सवालों का जवाब देने के लिए हमारी खोज दुहरी हो जाती है: सबसे पहले हम हिंदी की मौजूदा पाठ्यपुस्तकों और विभिन्न हिंदी व्याकरणों का अध्ययन करेंगी जिनमें हिंदी में डी ओ एम की मार्किंग का वर्णन है। दूसरा, ऐसे उदाहरण जो "को" से चिह्नित वस्तुओं और वे जो शून्य से अंकित हैं, अर्थात जहाँ "को" का लोप है, की तुलना आवृत्तियों के आंकड़ों के आधार पर करेंगी। इसके लिए "EMILLE कॉर्पस ऑफ़ स्पोकन हिंदी"[1] और "कॉर्पस ऑफ़ स्पोकन हिंदी"[2] से लिए गए उदाहरणों के सहारे हम इसका संक्षिप्त विश्लेषण करेंगी कि डी ओ की "को"-मार्किंग या "को" के लोप का सजीवता, निश्चितता, विशिष्टता एवं क्रियार्थ से क्या संबंध है।

मुख्य शब्द – विशिष्टता, डिफरेंशियल ऑब्जेक्ट मार्किंग, सजीवता, निश्चितता, क्रियार्थ।

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1 Introduction

This article aims to explore the dynamics of differential object marking (DOM) in Hindi. In Hindi, the *ko*-marking of the direct object (DO) is known to be influenced by two factors: animacy and definiteness and/or specificity (Kachru 2006: 175). However, few studies (Bhatt & Anagnostopoulou 1996; Butt 1993; Self 2012) have exclusively focused on the interplay of these two factors under different circumstances and their impact on the formal marking of the patient.[3] In this article, we intend to present the linguistic problems associated with Hindi objective marking and to compare the earlier linguistic analyses with the results of the present analysis of actual language usage. We will shed light on three issues pertaining to Hindi DOM marking: (a) the role of animacy, (b) the role of definiteness/specificity, and (c) the role of verb semantics.

First, it is traditionally assumed that an animate DO is marked with the objective marker *ko*.[4] However, there are attestations of animate DOs which are not *ko*-marked. Is there a rule behind these unmarked DOs or are they simply exceptions? The unmarked animate DOs, as suggested by Mohanan (1994), are nonspecific. We discuss two possible hypotheses: either the lexical feature of animacy is overruled by the feature definiteness/specificity, or animacy does remain the primary factor determining the marking and we need to look at other syntactic properties to explain the unmarked forms.

Second, the specificity/definiteness opposition raises some questions: linguists do not seem to agree on which terminology to use. Some use 'specificity' and 'definiteness' as interchangeable terms; others mention either the role of definiteness or the role of specificity in DOM; again others describe these factors as each having a different impact on the marking. We will give an overview of the different approaches in the literature and focus on the following questions: Do specificity and definiteness play a different role in the *ko*-marking of the DO? If so, which definitions of definiteness/specificity should be used, and what are the different roles of these factors?

Third, another factor influencing DOM to be considered is the verb semantics. Several linguists (Mohanan 1994; de Hoop & Narasimhan 2005; Klein 2007; Geist et al. 2007) describe that the *ko*-marking in Hindi depends on the selectional semantic properties of the verb. We will look at several transitive verbs and investigate what kind of alignment structure they take.

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3   The term is used in its broader meaning which includes also 'theme'.
4   We prefer to use the term "objective" instead of "accusative" or "dative". Hindi *ko* is used to mark the DO in a differential pattern, but it is also used to mark the IO. Neither the term "accusative" nor "dative" covers both uses. "Objective" refers to a case used to mark an object, and is as such more neutral than the two traditional terms.

To find an answer to these issues, our methodological approach will be two-fold: firstly, we will perform a literature study of existing textbooks and grammars of Hindi to explore the different ways in which DOM in Hindi is being described and taught. Secondly, we will conduct a brief analysis of 450 sentences extracted from the EMILLE Spoken Hindi corpus (Lancaster University, available on <https://cqpweb.lancs.ac.uk/>, created by Hardie 2012). We selected these sentences based on a search for constructions including a particular verb to find the frequencies of occurrence of *ko*-marked objects and their correlation with the semantic parameters of animacy, definiteness/specificity, and verb meaning. As such, this article aims, first, to offer an overview of the various linguistic analyses of differential object marking in Hindi, and second, to supply examples underpinning or negating these analyses using spoken language sentences documented from hearing.

Thus, this article uses two separate kinds of data, and this will, of course, influence the conclusions: the data taken from the textbooks and grammars is Hindi by prescription and is the closest to Standard Hindi one can find, whereas the sentences found in the corpora are renditions of spoken Hindi, and hence there may be dialectal variation or substandard grammar, thus breaking the grammatical rules of Standard Hindi, that will not be acceptable to every speaker of the language. However, compared to textbook material, corpus samples of Spoken Hindi are much closer to the actual language use, and a corpus is a representation of the changing and vibrant nature of language.

The structure of the article is as follows: section 2 briefly presents the basics of DOM in Hindi, based on traditional accounts found in grammar books. Section 3 focuses on the interaction between animacy, definiteness, and specificity. Section 4 gives an overview of the different accounts of definiteness and specificity determining the objective marking, and section 5 is a small-scale corpus study of the occurrences of marked and unmarked DOs with particular verbs.

2 Differential object marking

Traditionally, differential object marking in Hindi is said to be determined by the factors animacy and definiteness/specificity (Malchukov 2008; Klein & de Swart 2011; Aissen 2003; de Hoop & Narasimhan 2005; de Hoop & Malchukov 2008). The following examples from Mohanan (1994: 80) illustrate this pattern:

(1) *ilā ne*   ***bacce ko***   *uṭhāyā*
Ila.F ERG   child.M OBJ   lift.AOR.M.SG
'Ila lifted a/the child.'

(2) *Ilā ne*   **hār ko**   *uṭhāyā*
     Ila.F ERG   necklace.M OBJ   lift.AOR.M.SG
     'Ila lifted the/*a necklace.'

(3) *Ilā ne*   **hār**   *uṭhāyā*
     Ila.F ERG   necklace.M   lift.AOR.M.SG
     'Ila lifted a/the necklace.'

The DO *bacce ko* (DIR *baccā*) 'child' is animate and usually marked, whereas *hār* 'necklace' is inanimate and only marked when the interpretation is definite 'the necklace', marked by *ko*, as in (2).

The unmarked DO *hār* in (3) can be interpreted in three possible ways: 1) as a definite object 'the necklace', 2) as an indefinite specific object, which renders a translation with the indefinite determiner in English referring to a necklace known to the speaker (e. g. 'Ila lifted a necklace [of those that were presented there]'), 3) as an indefinite nonspecific object 'a necklace'.

Though this pattern of DOM might seem relatively straightforward, several complications in actual language usage occur. In the next section 3, we focus on the factor of animacy, and on the fact that not all animate DOs are always marked.

3 The role of animacy

Generally, animate arguments are marked with *ko*, as illustrated in (1) above. This is especially the case with animate arguments that are human (Kachru 2006: 175). For animate non-human arguments—one thinks in particular of animals—the rule is less strict. For instance, Montaut (2004: 170) gives the following example (4), in which *cuhī* 'mouse' is not marked with *ko*.

(4) *billī*   **cuhī**   *khāegī*
     cat.F.SG   mouse.F.SG   eat.FUT.F.SG
     'The cat will eat the mouse.'

In general, though, animate arguments, even non-human, are much more likely to be marked with *ko* than inanimate arguments. However, some authors mention animate indefinite/nonspecific DOs that are not *ko*-marked. Montaut (2004: 171) gives the examples of *naukar rakhnā* 'to keep a servant' and *laṛkā dekhnā* 'to look for a suitable boy'. In these instances, the animate argument is indefinite and nonspecific, features that seem to determine the absence of a case marking on the DO. Montaut (2004: 171) calls these DOs "no longer … a human entity, but rather … a general function". In the same vein, Butt (1993) argues that *ko* can

only be omitted if the animate object is unambiguously indefinite and nonspecific. In a typological article on DOM, Klein and de Swart (2011) argue that animacy in Hindi is the trigger for the objective marking in the sense that animacy, as a lexical feature, immediately "causes" the objective marking of the DO. The instances of unmarked nonspecific animate DOs seem to be counterevidence to this hypothesis, as animacy as the trigger factor is here clearly overruled by the feature of non-specificity, which seems to determine the (absence of) marking.

Mohanan (1994: 109) offers another interpretation of these nonspecific animate arguments. Instead of taking the objects in their generic meaning, she interprets the whole construction as construction of incorporation. Her own example is the following (Mohanan 1994: 108):

(5)   *ilā*   *bacce*   *khojtī*   *rahtī*   *hai*
     Ila.F child.M.PL search.IPFV.F.SG DUR.PRS.F.SG AUX.PRS.3SG

Mohanan's translation of this example is in accordance with a typical construction of incorporation: 'Ila keeps performing the act of searching for children.' In her opinion, the common translation that is given for such constructions, i. e. 'Ila keeps searching for children', is ungrammatical. She gives a number of syntactic properties of this construction, which seem to argue for an interpretation as construction of incorporation: *bacce* cannot take case marking, modification, conjoining, or be split from the verb by an adverb.[5] The reasoning that the first property is not being allowed to take case marking is, of course, circular: the construction is considered as an instance of incorporation because there is no case marking – if there were case marking, it would not be considered as incorporation. With regards to the other properties, from the moment the DO would be determined by a modifier or conjoined with another NP, it loses its non-specificity, which is an argument for the hypothesis that the feature of specificity does indeed sometimes overrule animacy. The idea that an argument of a predicate can be incorporated into the predicate works well with inanimate nonspecific arguments – and to a certain extent with animate non-human arguments (Mohanan 1994: 106–108), but for animate nonspecific arguments, it leads to far-fetched interpretations of constructions.

From this discussion, it appears that animacy is the primary factor that determines the *ko*-marking; however, when a nonspecific meaning is intended, the marking can be absent. Specificity plays a different role than definiteness, which brings us to our next section. In this section, we discuss the issue of how definiteness and specificity relate to each other with respect to Hindi DOM.

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5   A colleague pointed out that her respondents do accept the sentence with the DO split from the verb by an adverb of place or manner.

4 Definiteness and specificity: different roles?

In linguistics, two concepts have been deemed important with regard to 'definiteness', i.e. 'familiarity' or 'identifiability' and 'uniqueness' (Lyons 1999). The former refers to the role of definiteness as a way to mark the referent as already known to the hearer or not, the latter as a way to identify the referent as a unique entity in the discourse. The way definiteness is marked in languages cross-linguistically is highly diverse and has been extensively discussed and researched (Aguilar-Guevara, Pozas Loyo & Vázquez-Rojas Maldonado 2019). In many languages, there is a division in the way indefinite referents are marked. In this sense, indefinite arguments can be further subdivided into specific/nonspecific arguments (Fodor & Sag 1982). According to von Heusinger (2002), the function of definiteness in discourse is to mark familiarity, whereas specificity refers to the "certainty of the speaker about the identity of the referent", i.e. uniqueness, which is the very basic definition of these concepts that will be followed here when we speak of definiteness vs. specificity.[6] For this article, we follow the more mainstream assumption that specificity is relevant to determine indefinite arguments. As such, it is generally assumed that specificity is a subcategory of definiteness, in the sense that all definite arguments are by definition specific, and indefinite arguments are divided into specific and nonspecific arguments (Lyons 1999; von Heusinger 2002; Aissen 2003; Abbot 2004). Applied to DOM in Hindi, using the terminology of specificity is more precise than the broader categorization of definiteness. The following three subsections discuss the various accounts and analyses of definiteness and specificity and their relation with DOM in Hindi.

5 Definiteness

In languages with determiners, in particular articles, the definiteness of the argument is mostly taken to be indicated through these determiners. The accounts on Hindi which explain the use of *ko* with the concept of definiteness refer to the indefinite determiner *ek*, originally the numeral 'one', and to the indefinite demonstrative *koī* 'some' as indicators of indefiniteness (e.g. Montaut 2004: 54; Singh 1994: 219; Kachru 2006: 54–55).

According to Singh (1994: 227, followed by Aissen 2003), the indefinite marker *ek* cannot appear with a *ko*-marked inanimate object (hence the ungrammaticality of (6)). Singh and Aissen take this as evidence to state that *ko* marks definiteness with inanimate objects, in contrast to marking all animate objects, irrespective of

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6 Note that von Heusinger (2002) himself argues to consider specificity not as a subcategory, but as a category that exists besides definiteness.

their definiteness (but see section 3 above). Singh (1994: 228) claims that the following example is ungrammatical:

(6) *laṛke ne   āj   ek phūl   *ko   dekhā*
     boy.M.OBL ERG   today   one flower.M   OBJ   see.AOR.M.SG
     'The boy saw a flower today.'

Mohanan identifies definiteness as the feature which determines the marking of inanimate arguments. However, she mentions the complex interaction of definiteness with specificity in a footnote (Mohanan 1994: 80) Revealingly, one of her examples to illustrate this complexity is a similar construction to (6), argued to be ungrammatical by Singh (1994) and Aissen (2003). Mohanan (1994: 81) argues about this example (7): "[the object] may be either specific or nonspecific […], but is indefinite because of the indefinite determiner."

(7) *ravī   ek gāy   ko   kharīdnā   cāhtā   hai*
     Ravi.M   one cow.F OBJ   buy.INF   wish.IPFV.M.SG AUX.PRS.3SG
     'Ravi wishes to buy a (particular) cow.'

Definiteness is the factor determining *ko*-marking for Mohanan, and indefiniteness is related to the determiner *ek*. She considers the DO of (7) as "ambiguous between specific and nonspecific". In our opinion, however, *ek gāy* in (7) is indefinite but specific, and it is the specificity of the NP which causes the marking with *ko*.[7]

Furthermore, a perusal of the COSH (Nishioka 2016–2017) renders the following example (8), in which the same NP as in (6) *ek phūl ko* occurs.[8] Though the combination with the genitive determiners hints at a numeral interpretation of *ek*, the indefiniteness of *phūl* remains. In other words, the use of the indefinite determiner does not exclude the objective marking of the DO – though such occurrences are rare.

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7 Note that *gāy* 'cow', the DO of this construction is animate; however, as we discussed in section 3, for animate non-human DOs the general rule of *ko*-marking is less strict, and Mohanan finds the example without *ko*-marking also perfectly acceptable and common, and a true example of a nonspecific reading.

8 Another example is mentioned in Klein (2007: 5):
   Adnan ne   ek phūl kudi ko   toḍā
   Adnan ERG   one flower vase OBJ   break.AOR.M.SG
   'Adnan broke a flower vase.'
   A colleague pointed out that the word *kudi* is inscrutable. We agree this might be the case. Klein unfortunately does not give more details as to the origins of this example. Klein attributes the object marking in this example, which, unlike (6), is seen as grammatical, to the difference between the verbs *toṛnā* here and *dekhnā* in (6), but does not elaborate any further on what semantic aspects of the verbs in particular are relevant.

(8)   *is=^{i9}kā^{10}*   *ek phūl ko*   *guṛ mẽ lapeṭkar* […]
     this.OBL=GEN.M.SG   one flower.M OBJ   molasses in wrap.CVB […]
     (COSH 33)
     'After dipping one of its flowers in molasses […]'[11]

In sum, at first sight, definiteness is an appropriate criterion to come to terms with the pattern of DOM in Hindi. However, definiteness alone is not sufficient to explain the markedness of inanimate indefinite DOs like example (8). Examples such as (8) bring us to accounts that rely on specificity instead.

6 Specificity

In another work, Singh (1994b) does consider specificity as playing a role in DOM, defining specificity as the knowledge that the object previously existed. She considers the following example as ungrammatical with the objective marker *ko*, because of the non-specificity of the DO cake (Singh 1994b: 80, also Bhatt & Anagnostopoulou 1996).

(9)   *rām ne*   *cake^{12}(*ko)*   *banāyā*
     Ram.M ERG   cake(*OBJ)   make.AOR.M.SG
     'Ram made a cake.'

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9 Ungrammatical forms and typos, as they appear in the sentences from the corpora, are marked with the low inverted exclamation mark.

10 The example phrase concerns a medical prescription. The genitive pronoun refers to the flower described in the preceding sentence:
वायगोला का दर्दः- **सफेद अकौवा** (मदार), इसे स्वेतार्क भी कहते है। **इसका** एक फूल को गुड़ में लपेटकर रोगी को खिलाकर पानी पिला दें, आधा घंटे में ही रोगी का दर्द सही हो जायेगा।
*vāygolā kā dard: **saphed akauvā** (madār), ise svetārk bhī kahte hai. **Iskā** ek phūl ko guḍ mẽ lapeṭkar rogī ko khilākar pānī pilā dẽ, ādhā ghaṃṭe mẽ hī rogī kā dard sahī ho jāyegā.*
'Pain due to abdominal colic: white akauvā (swallowwort), also called *svetārk*. Wrap one flower of it in molasses and feed it to the patient, and give him/her water to drink, within half an hour the patient's pain will be cured.' A colleague points out that "iskā" in this example is ungrammatical, the genitive postposition being realised in the direct case instead of the oblique case. Since this is an example taken from a spoken web corpus, it might very well be that this reveals the process of building the sentence, in which the speaker is assumed to have decided to use a different way to express, in this particular case by means of using *ko*.

11 All the translations of the examples given from the corpora are own translations.

12 The transliteration was taken from the original source (in Roman script).

According to Butt (1993, also Montaut 2004: 170–171), who from the onset makes a clear distinction between definiteness and specificity, *ko* marks specificity with inanimates. The marked inanimate object can be both specific indefinite or definite. For Butt, an object being definite implies that the object is specific, but not the other way around. In the framework of Lexical-Functional Grammar, Butt & King (2004) consider only "specific" as a property, there is no "definite" property. Although de Hoop & Narasimhan (2005) and de Hoop & Malčukov (2008) base their account on Aissen (2003), who considers definiteness, they do not mention definiteness; for them, *ko* marks the specific object. Apart from these authors, others generally refer to both definiteness and specificity as determining the *ko*-marking, without making an explicit distinction or giving a clear definition of the two factors. Kachru (2006) mentions in her grammar that inanimate arguments are marked with *ko* if the NP is definite and specific (Kachru 2006: 173). Vasishth & Joseph (2008: 7) mention specificity/ definiteness marking on the direct object without differentiating between the two.

From the above discussion, it is clear that relying on definiteness leads to some problems with interpreting certain occurrences of objective-marked inanimate indefinite arguments. Specificity brings the solution, as observed by the majority of the authors. As argued in section 3 above, specificity is also the criterion that might explain the unmarkedness of certain nonspecific animate arguments (see also Self 2012). We follow this view, and therefore we will use the term specificity in the remaining sections of this paper.

7 The role of verb semantics

Thus far, our review of the literature on the subject of the present article has suggested that animacy primarily determines the marking of the DO. In the case of nonspecific DOs, animacy might be overruled, and the DO might not get an objective marking because of its non-specificity. Inanimate DOs get no marking unless they are specific. However, some authors observe that there are deviations to these rules which seem to be related to the semantics of the verbs. For instance, de Hoop and Narasimhan (2005: 328, n. 3) observe that an animate noun like *bakrā* 'goat' is much more likely to receive *ko* object-marking with the verb 'to kill' than with the verb 'to sell'. The marking of non-human animate nouns is somewhat a grey zone, and the hypothesis that the verb semantics determine in part the specificity and/or animacy of the non-human animate noun seems acceptable (compare section 3.). This observation of de Hoop and Narasimhan (2005) seems to refer primarily to a kind of semantic interaction between the verb and the DO, which ultimately has consequences for the interpretation and formal

marking of the DO.[13] However, most accounts that argue for a clear relationship between the presence of *ko* and verb semantics go back to Mohanan (1994), who gives several specific verbs of which she argues they occur only with one type of DO – marked or unmarked.

Mohanan (1994: 81 and n. 34) champions the notion that the selectional restrictions of the verb on animacy restrict the use of *ko*. She argues that the choice of whether or not the DO receives *ko* "is available only to the objects of those verbs that are neutral to the animacy of their objects" (Mohanan 1994: 81). In the neutral class of verbs that permit variable use of *ko*, that is, those verbs the marking of whose DO is completely dependent on its properties of animacy/specificity, Mohanan includes for instance *khojnā* 'search for', *toṛnā* 'break', *kāṭnā* 'cut', and *lānā* 'bring'. In her opinion, *likhnā* 'write', *paṛhnā* 'read', *pīnā* 'drink', *gānā*' sing' and *banānā* 'make' belong to the class of verbs that require inanimate objects and do not allow *ko*. The verbs *bulānā* 'call' and *mārnā* 'beat somebody', 'kill', on the other hand, are among the verbs that require of their objects animacy and, accordingly, marking with *ko*. Mohanan's hypothesis seems to be based on intuition and free language observation. In order to test for its validity, we have conducted a small-scale corpus investigation. As mentioned above, we used the EMILLE corpus of spoken Hindi (the University of Lancaster, available on <https://cqpweb.lancs.ac.uk/>, created by Hardie 2012), which means that the examples that we discuss in this article reflect free and natural language speech, and will thus not always reflect the grammatical rules of Standard Hindi. The data have an oral production source and have then been transcribed into Devanagari[14] for the corpus[15]. No information on the sociocultural status of the speakers is available, although the deviations from Standard Hindi in grammar and register might imply that the data also include sentences by speakers from lower SES backgrounds. We selected 450 sentences based on the attestation of seven verbs, i.e. *banānā* 'to make'; *paṛhnā* 'to read', 'to study'; *gānā* 'to sing'; *pīnā* 'to drink'; *likhnā* 'to write'; *mārnā* 'to beat', 'to hit', 'to kill'; *bulānā* 'to call', 'to invite'. All of these verbs have been argued to occur only with one type of DO, either marked or unmarked (Mohanan 1994: 81–82). We looked for all possible finite, active uses of these verbs, which

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13 A colleague points out that this perspective is very different from Mohanan's idea that an unmarked animate DO is incorporated. Indeed, De Hoop and Narasimhan consider the unmarked DO as a full-fledged argument in its own right, which determines the verb as much as it is determined by the verb.

14 All transliterations of the corpus examples are own transliterations. Wherever we give the context of the quoted examples, we have provided the original Devanagari text in footnote.

15 The corpus doesn't provide further details on how and by whom the data were transcribed.

means that we did not take into account any passivized use.[16] We also did not take into account constructions in which the DO is not overtly mentioned. Our investigation aimed to find out if the claim that certain verbs are exclusively associated with a DO marked with *ko* or with an unmarked DO is confirmed in actual language usage.[17]

8 *banānā* 'to make'

The great majority of the patients of the verb *banānā* are in the unmarked case (121/125). These very frequent constructions are for instance of the type of (10), with a generic, nonspecific inanimate DO.

(10) *bahut* *baṛhiyā* **khānā** *bhī* *banāte* *haĩ*
     very   good   food.M   too   make.IPFV.M.PL AUX.PRS.3PL
     (1ehinsp00a)
     'They make very good food too.'

Four constructions are with a marked objective patient. In all of these constructions, the patient is pronominal. In two of these four constructions, the DO is inanimate but specific, in the remaining two, the DO is animate and specific. In this discussion, we take both the categories animacy and specificity into account, although it must be clear from the discussion in section 3 above that animacy is the factor that primarily determines the *ko*-marking.

Inanimate specific

(11) [...]**un=ko** *unhõ=ne* *banāyā* *hai*
     they.OBL=OBJ they.OBL=ERG make.PFV.M.SG AUX.PRS.3SG
     (5ehinsp011)
     'They constructed them.'

The pronoun in this example is specific as it refers to the inanimate NP *amrīkī ṭhikāne* 'American places' in the preceding sentence: **amrīkī kampaniyã** ⁱ*hai islīe*

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16 We realize that *ko*-marking also occurs with the patient in a passive construction, however, a discussion of when and where *ko* occurs in these passive constructions would transgress the scope of this article.

17 As Mohanan herself already pointed out: "when speaking of individual verbs and verb classes, we must expect there to be considerable speaker variation and grey areas in speaker judgments" (1994: 81).

aur bhī jo amrīkī ṭhikāne hai **unko** *unhõne banāyā hai*[18] "[These] are American companies, this is why the other American residencies that are [there], they constructed them."

(12) *zindagī* ᶦ*kā* **jis=ko** *cāhā* **us=ko** *apnā*
life.F GEN which.OBL=OBJ want.AOR 3SG.OBL=OBJ [his/her]own
banā na sake
make not can.AOR.PL.HON/SBJV.3SG
(63ehinsp00d)[19]
'The one whom [s/he] loved in [his/her] life her/him [s/he] could not/probably will not get.'

Animate specific

(13) **is=ko** *bartāniyā ke avām ne banāyā hai*
he.OBL=OBJ Britain gen people ERG make.PFV.M.SG AUX.PRS.3SG
(12ehinsp039)
'The people of Britain have made him [the Prime Minister of his country].'

The pronoun in this example refers to the animate noun *prāīm minisṭar* 'prime minister' in the preceding sentence: **Prāīm minisṭar** *jo hai is mulk kā* **is ko** *bartāniyā ke avām ne banāyā hai*[20] 'The people of Britain have made him the prime minister of this country.'

(14) *bilkul* **us=ko** *chief minister ke jaisā banā rahe haĩ*
totally he.OBL=OBJ chief minister GEN such make PROG AUX.PRS.3PL
(123ehinsp047)
'They are completely making him [turning him into] the chief minister.'

The pronoun in this example refers to the noun *ādmī* 'man' in the preceding sentence: *matlab ek* **ādmī** *thā unkā jiskī śakal chief minister se kāphī miltī thī, to uskā* ᶦ*phūrā, matlab uske pūre mũh kā nakśā badal ke bilkul* **usko** *chief minister ke jaisā banā rahe haĩ tākī vah usko chief minister kī jagah biṭhā sakẽ* […][21] 'I mean, among them was a man whose face approximated the chief minister, so his full,

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18 अमरीकी कम्पनीयां है इसलीए और भी जो **अमरीकी ठिकाने** है **उनको** उन्होंने बनाया है।
19 This sentence is not unconditionally acceptable to, at least some, native speakers.
20 **प्राईम मिनिस्टर** जो है इस मुल्क का **इस को** बर्तानिया के अवाम ने बनाया है।
21 मतलब एक आदमी था उनका जिसकी शकल chief minister से काफी मिलती थी, तो उसका फूरा, मतलब उसके पूरे मुँह का नक्शा बदल के बिलकुल **उसको** chief minister के जैसा बना रहे हैं ताकी वह उसको chief minister की जगह बिठा सकें […]

I mean after changing the appearance of his entire face, [they] are making him really [look] like the chief minister […].'

In general, *banānā* is constructed with an inanimate object. Animate DOs are rare: in our corpus, we found only eight instances. They were related to a pattern much observed in combination with *banānā* with the meaning 'to make something/someone into something'. The following is an example.

Animate specific

(15) *vahā̃ pe **us=ko***   ***kuttā***   *banātā*   *hai*
      there on he.OBL=OBJ   dog.M   make.IPFV.M.SG   AUX.PRS.3SG
      (27ehinsp047)
      'There he makes him [his] dog.'

The pronoun is specific as it refers to the noun *pitājī* 'father' in the preceding sentence. The entire sentence refers to a movie scene where the villain makes the father of the hero act like a dog: *jahā̃ pe uske **pitājī** ko mārā hotā hai usne. vahā̃ pe **usko** kuttā banātā hai pahle* […][22] 'Where he constantly beat his father. There he first makes him [his] dog […]'

(16) *phir āp **is=ko***   *banāras kā **pān vālā***   *kyũ banā rahe*
      then you he.OBL=OBJ   Benares GEN betel-seller.M   why make PROG.PL
      haĩ?
      AUX.PRS.3PL
      (65ehinsp00f)
      'Then why are you making him a betel-seller of Benares?'

In this sentence, the speaker refers to a film character that he had played. The pronoun *usko* 'him' is hence specific as it refers to this film character: *To unhone saī parānjape ne mujhe ijāzat de dī ki ki **lallan miyā̃** pān vāle jo haĩ vo nām maine sajesṭ kiyā thā unko maine kahā ki kahā̃ ye śūṭīṃg kar rahẽ haĩ kahne lage ki nizam ūddīn me to maine kahā kī phir āp **isko** banāras kā pān vālā kyũ banā rahẽ haĩ*[23]. 'So she, Sai Paranjape, gave me permission to suggest the name of that Lallan Miyan pan seller, I asked her, where are you doing this shooting, she started to say in Nizamuddin, so I said "Then why are you making him a Benares pan seller?."'

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22 जहाँ पे उसके पिताजी को मारा होता है उसने। वहाँ पे उसको कुत्ता बनाता है पहले […]
23 तो उन्होने सई परान्जपे ने मुझे इजाज़त दे दी कि कि **लल्लन मियां** पान वाले जो हैं वो नाम भी मैने सजेस्ट किया था उनको मैने कहा कि कहाँ ये शूटींग कर रहें हैं कहने लगे कि निज़ाम ऊद्दीन मे तो मैने कहा की फिर आप **इसको** बनारस का पान वाला क्युं बना रहें हैं।

(17) […] *ⁱvah*[24] **irākī śahriyõ**   ***ko***   *bambārī*   *mẽ*   **niśānā**
      […] he Iraqi citizen.M.OBL.PL   OBJ   bombing.F   in   target.M
      banā rahe   *hai*
      make PROG.M.PL   AUX.PRS.3SG
      (22ehinsp011)
      '[…] they are making the Iraqi citizens the target in the bombings.'

In other words, for *banānā*, it is certainly true that there is a tendency towards unmarked DOs, yet objective marked DOs are not strictly excluded.

9 *paṛhnā* 'to read'

For *paṛhnā*, we needed to take into account that it is a polysemous verb, which means 'to read', as well as 'to study'. In the latter meaning, it often occurs as an intransitive, without an explicit DO. As a transitive verb, surprisingly, the number of occurrences is rather limited. We only found 23 occurrences of *paṛhnā* in the EMILLE corpus. Of these, only one has an objective marked DO. In this example (18), the pronoun is specific as it refers to a sentence that is being read out by the speaker.

(18) **ise**[25]   *dobārā*   *paṛhtā*   *hũ̃*
      this.OBJ   twice   read.IPFV.M.SG   AUX.PRS.1SG
      (3ehinsp015)
      'I am reading this again.'

paṛhnā is similar to *banānā* in that it semantically takes a clear preference for an inanimate object. Again, however, if that inanimate object is definite, then it is perfectly possible that the object takes the objective case.

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24 The pronoun *vah* 'he, that' is in the original sentence in the singular form, which occasionally is also used as plural. The agreement on the verb is ambiguous:
    उन्होने अमरीका और बर्तानिया पर इल्ज़ाम लगाया है ।की **वह** इराकी शहरियों को बमबारी मे निशाना बना रहे है ।
    *unhone amrīkā aur bartāniyā par ilzām lagāyā hai ki **vah** irākī śahariyõ ko bambārī me niśānā banā rahe hai*
    'He accused America and Britain of making the Iraqi citizens the target in the bombings.'
25 The analytic objective case form of the personal pronouns has a synthetic equivalent ending in *-e/ẽ*, e.g. in this example *ise* corresponds to *is=ko* (Kachru 2006: 64).

10 *gānā* 'to sing'

We found 28 attestations of a finite form of the verb *gānā*. All of them were constructed with an unmarked case. In many cases, the patient was a form of the word 'song', either *gānā* (m.) or *gīt*. Remarkably, there were also a few specific inanimate objects which did occur unmarked, in contrast to the constructions of *banānā* and *paṛhnā*:

(19) *yā **ye**   gāyā   thā* […]
      or this   SING.PFV.M.SG   AUX.PST.M.SG
      (1ehinsp00d)
      'Or you sang this […]'

The phrase comes from an interview with an artist about a certain song, the pronoun is hence specific as it refers to the song: *āp vo māyne rakh kar gāte haĩ kyā? Yā ye gāyā thā jab māyne rakh kar vo log soṃg karẽge jo matlab lavī ḍavī hote haĩ* [26] 'Are you keeping that sense when you are singing? Or did you sing this when you were keeping the sense that people will sing a song that is lovey-dovey?'

    In our corpus, we did not find any *ko*-marked DO. Note however that a corpus study is limited by the size of the corpus. Klein (2007: 5) found another example with *gānā*, in which the DO is marked:[27]

(20) *merā dost   is   **gānā ko** gātā   hai*
      my   friend.M   this.OBL   song.M OBJ sing.IPFV.M.SG   AUX.PRS.3SG
      'My friend sings this song.'

In this example, the DO has a modifier, which renders it definite/specific.

11 *pīnā* 'to drink'

pīnā as a finite verb occurred 18 times in the corpus. It never occurred with a marked DO. However, most DOs were generic mass nouns, such as *dūdh* 'milk', *sigareṭ* 'cigarette'[28], *cāy* 'tea', *śarāb* 'alcohol'. All DOs were thus nonspecific and inanimate, which would make the objective marking quite unlikely.

26 आप वो मायने रख कर गाते हैं क्या? या **ये** गाया था जब मायने रख कर वो लोग संग करेंगे जो मतलब लवी डवी होते हैं।
27 Klein does not mention his source of the example (note the ungrammatical *-ā* ending of *gānā)*. A quick perusal on Google of *is gāne ko gānā* shows that this form does occur and is not unusual.
28 The word cigarette occurs in all cases we came upon in our study as a mass noun, meaning in connection with the verb—*sigareṭ pīnā*—'to smoke'.

12 *likhnā* 'to write'

In our corpus, we found *likhnā* with a DO 91 times. The majority of the patients are unmarked (89/91), none of them animate. 40/91 are specific objects. The majority of these are unmarked (38/40), even when they are pronominal:

Inanimate Specific

(21) *ᶦme=ne* **ye**[29] *nae*   *dosto*   *par likhā*   *hai*
      I=ERG   this new.OBL.PL   friend.M.OBL.PL   on write.PFV.M.SG   AUX.PRS.3SG
      (78ehinsp0044)
      'I wrote this about new friends.'

Two of the attested DOs are in the objective case, both pronominal. The following example contains one such a marked pronominal DO.

(22) *maĩ=ne*   **ise**   *ᶦlikhī*   *hai*
      I=ERG   this.OBJ   write.PFV.F.SG   AUX.PRS.3SG
      (2ehinsp002)
      'I have written it.'

The pronoun is specific as it refers to the feminine noun *kitāb* 'book'. This might also explain the verb form in the example sentence, even though the agreement with the anaphoric referent is ungrammatical (it should agree with *ise*, in which case the verb would have been in the default masculine, i. e. no agreement because of the objective case). This again reflects the free nature of the data, and stresses the value of researching variation in spoken Hindi: *uskā nām hai raph gāīḍ unhõne naī sirīz lagāī hai aur itihās ke lie aur unkī sirīz mẽ ye jo **bhārat ke itihās kī kitāb** jo maĩne likhī hai.* […] *uskā bhī phūl ṭāiṭal hai da raph gāiḍ kronikal imḍiyā emḍ ā maĩne **ise** likhī hai* 'Its title is *Rough Guide*, they launched a new series, on history, and in their series I wrote the book on the history of India […] its full title is also the Rough Guide Chronical India and ah I wrote it.'

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29 The pronoun *ye* refers to something that had been written before, the original Hindi version reads: आज से तीन साल पहले ᶦमेने ये नऐ दोस्तो पर लिखा है ये आप को ही सुनाया था। *āj se tīn sāl pahle ᶦmene ye nae dosto par likhā hai ye āp ko hī sunāyā thā* 'Three years ago from today I wrote this about new friends, this is what I made you listen to'.
The incorrect vowel in the I.SG pronoun written as *me* instead of *maĩ* is most probably due to a typo in the corpus. The DO *ye* is either a literal transcription of its singular form *yah*, which is pronounced in the same way, or a grammatical mistake, in which case it is noteworthy that there is no plural agreement on the verb.

13 *mārnā*

There are two verbs which were mentioned as only taking objective marked DOs, *mārnā* and *bulānā*. Both of them have different meanings. The verb *mārnā* means 'to beat', 'to hit', and – as a rule in compound verbs – 'to kill'. In the former meaning *mārnā* is constructed with an internal object, such as particularly frequent in our corpus, *golī* 'bullet'. This is a conjunct verb. We found 107 constructions with *mārnā* in the corpus. 16 are constructions with an unmarked DO. 11 are conjunct verb constructions with an objective marked DO. Of the remaining sixteen, the object can either be considered as an internal object, or the construction is highly idiomatic. In those cases, no animate patient is present:

(23) *āj   maĩ=ne **itnā baṛā hāth**   mārā   hai*
today I=ERG   such big   hand.M   hit.PST.M.SG AUX.PRS.3SG
(40ehinsp047)
'Today I hit such a big hand.' (i. e., I grabbed unlawfully plenty of money).

(24) *ṭokrī   pe **lāt**   mārtā   hai*
basket.F on kick.F hit.IPFV.M.SG AUX.PRS.3SG
(23ehinsp048)
'[He] kicks at the basket.'

(25) ***āmir khan ko***   bhī **lāt**   mārtī rahtī   hai
Amir Khan OBJ   too kick.F   hit.IPFV.F.SG DUR.F.SG   AUX.PRS.3SG
(2ehinsp047)
'She keeps on kicking Amir Khan too.'

14 *būlānā*

With *bulānā*, one has the meaning of 'to call someone something'[30], 'to invite'. The first meaning of course again implies a construction with a nominal predicative, which is unmarked, and a *ko*-marked object.

(26) *ve bacce   usī=ko   pāpā bulāte   haĩ*
this.pl child.M.PL he.OBL.EMPH=OBJ daddy call.IPFV.M.PL AUX.PRS.3PL
(1ehinsp047)
'These children call him daddy.'

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30 We didn't find any example phrases with this meaning of *bulānā* which contain an inanimate DO.

36 of the 39 transitive constructions with *bulānā* in our corpus have an animate DO. All of these DOs are marked in the objective case. There are three occurrences of unmarked DOs, all of which are nonspecific and, interestingly, these three instances refer to a collective noun: *jalsā* 'meeting' in (27) and *mīṭiñg* 'meeting' and *haṛtāl* 'strike' in the two other instances. Note that they are grammatically treated as inanimate, even though they semantically refer to animate entities.

(27) *inhõ̃=ne*   *īrāk ke*   *opposition ke*   *tamām leaders*[31] *kā*
      they.OBL=ERG   Iraq GEN   opposition GEN   all leaders GEN
      ek bahut baṛā*   *jalsā*   *bulāyā*   *thā
      one very big   meeting.M   call.PFV.M.SG   AUX.PST.M.SG
      (4ehinsp03b)
      'They had called a very big meeting of all the leaders of the Iraqi opposition.'

Our brief corpus investigation indicates that the verb semantics plays a role in preferences for one or the other marking of DO. However, it is unclear how strong this is related to the verb meaning rather than to the meaning of the object itself. Some verbs combine much more frequently with an animate or with an inanimate patient than others. With the verbs with an apparent predilection for unmarked DOs, we see that objective DOs are certainly not excluded, in particular, if they are pronominal, which concerns also inanimate nouns. The pronominal DOs in our examples are anaphoric, which implies that they are specific, and might require *ko*-marking, especially when they refer to an animate noun. The interesting thing here is that this shows that the verb semantics does not inhibit null-marking, on the contrary, these examples show that the speaker might want to stress the specificity by *ko*-marking the pronoun. It is only with *gānā* and *pīnā* that we found no marked DO in the corpus. However, both verbs take a much less specific patient than *banānā* and *paṛhnā*. The patients of *gānā* and *pīnā* are practically always mass nouns, or at least nonspecific. With *banānā* and *paṛhnā*, this is much less the case – here patient arguments can be specific, in the former case even animate. Concerning the verbs which only take objective patients, *mārnā* and *bulānā*, we find that they do occur with nonspecific DOs which do not take a marking (e. g. 'meeting' in example (27)). Apart from our findings on DOM, we also noted several ungrammaticalities in the examples, especially when a marked DO was present. Our corpus investigation thus suggests that more research into spoken Hindi is required. This might shed more light on substandard grammatical variation regarding agreement and its relation with, e. g. DOM.

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31 "opposition" and "leaders" are in Roman script in the corpus.

15 Conclusion

In this article, we gave an overview of the different accounts of DOM in Hindi, focusing on the interaction between the different features argued to determine the objective marking of the DO. We saw that most accounts take animacy as the trigger factor, with animate human arguments generally taking *ko*-marking. In the group of inanimate DOs, we found that accounts that argue that the marking is determined by the feature of specificity are the most precise, based on attestations of inanimate, indefinite but specific DOs which take the objective marking. As such, we stand by our argument that a division of indefinite DOs into specific and nonspecific arguments for Hindi is more precise than the broader categorization of definiteness. The non-specificity of animate arguments is also sometimes related to the DO being unmarked, in particular, if the DO is animate but non-human. Finally, we presented some data from a small-scale corpus investigation of constructions with several verbs that had been reported to occur only with one type of DO. Through a fine-grained analysis of the examples, we observed that the meaning of the verb does not exclude a particular type of marking. Even though we would find many examples with a typical type of marking for this verb, we also found several examples of marked DOs that would be regarded atypical in light of the described restrictions. In each of these examples the important role of the feature of specificity was once more confirmed: the occurrence of an atypically marked DO in combination with such "restrictive" verbs could always be explained by the specificity of the DO. Additionally, we observed that interesting ungrammaticalities occur in this type of corpus data, which definitely asks for further research.

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