SEMANTIC ASPECTS OF DIFFERENTIAL OBJECT MARKING*

Peter de Swart and Helen de Hoop,
Department of Linguistics, Radboud University Nijmegen

{P.deSwart,H.deHoop}@let.ru.nl

Abstract

Many authors have argued that there exists a relation between case morphology, on the one hand, and semantic interpretation, on the other. A recurrent pattern is that the presence of overt case corresponds with a strong interpretation, i.e., definite, specific, whereas the absence of case corresponds with a weak interpretation, i.e., indefinite, non-specific. In this paper we argue on the basis of differential object marking (DOM) data that such an across-the-board correlation between semantic interpretation and case morphology often cannot be maintained as the association between a certain case and a certain interpretation can be counteracted by the requirement of this case to occur due to the animacy of a noun. The fact that animacy takes priority over definiteness and/or specificity in DOM systems can be explained by the fact that animacy, but not definiteness/specificity, is an inherent feature of nouns, a feature which cannot be changed.

1 Introduction

Transitive verb phrases can be semantically composed in different ways. The verb can be straightforwardly transitive (type $\langle e,\langle e,t\rangle\rangle$) in the sense that it denotes a relation between two equal arguments, or the verb can be formally intransitive (type $\langle e,t\rangle$) with its object functioning as a predicate modifier (type $\langle\langle e,t\rangle,\langle e,t\rangle\rangle$; cf. de Hoop 1992). A third option is that the verb functions as a predicate modifier (type $\langle\langle e,t\rangle,\langle e,t\rangle\rangle$) which incorporates a weak object (type $\langle e,t\rangle$; cf. van Geenhoven 1998). Although VPs can differ in the way they are composed, the result of the semantic composition in all cases is a VP of type $\langle e,t\rangle$.

If we now turn to morphosyntactic composition, we find that cross-linguistically the variation in semantic composition in many languages is reflected in the morphosyntax through a variety of case and/or voice alternations. A nominative-accusative or ergative-absolutive case frame most often corresponds to the standard transitive relation $\langle e,\langle e,t\rangle\rangle$. Deviations from this transitive case frame, e.g., a shift of accusative or absolutive case to an oblique case, correspond to changes in the semantic composition.

De Hoop (1992), investigating the semantic interpretation associated with case morphology, shows how certain cases correspond to certain interpretations in languages with differential case marking. For instance, noun phrases that are 'strong' (type $\langle\langle e,t\rangle,t\rangle$) are likely to be overtly case marked with accusative case. 'Weak' objects (type $\langle\langle e,t\rangle,\langle e,t\rangle\rangle$), on the other hand, often do not show overt case marking and occur in an antipassive or noun-incorporation structure. Thus, de Hoop argues, in Finnish accusative marking of direct objects results in a strong interpretation, whereas partitive marking results in a weak interpretation. Similarly, van Geenhoven

(1998), discussing direct object incorporation in West-Greenlandic, assigns non-incorporated (transitive) objects a strong interpretation and incorporated objects a weak one ($\langle e,t \rangle$ in her analysis).

Restricting ourselves to case-marking patterns, we find that many authors have proposed a systematic correlation between case and semantic interpretation (cf. Enç 1991, Butt 1993, Ramchand 1997, Aissen 2003, Bleam 2005, Danon 2006). This correlation always seems to fall out in the following way that overt/accusative case corresponds with a strong interpretation, i.e., a definite, specific, de re, or presuppositional interpretation, and absence of case or oblique case corresponds with a weak interpretation, i.e., an indefinite, non-specific, de dicto, or non-presuppositional interpretation. In this paper we will argue that such an across-the-board correlation between semantic interpretation and case morphology often cannot be maintained. We will show that the association between a certain case and a certain interpretation can be counteracted by the requirement of this case to occur due to the inherent semantic feature of an argument, i.e., its animacy. Following de Hoop and Malchukov's (to appear) distinction between split and fluid case alternations, we will argue that split alternations take priority over fluid alternations. In a split case alternation one type of noun phrase, e.g., animate ones, occurs with one case and another type of noun phrase, e.g., inanimate ones, occurs with another case. In a fluid case alternation, on the other hand, the same noun phrase in the same linguistic context can alternatively take one or the other case marker with a concomitant meaning difference. For instance, a given noun phrase with accusative case is interpreted as specific whereas the same noun phrase without the accusative case is interpreted as non-specific.

The paper is organized in the following way: in section 2 we introduce the phenomenon of differential object marking which forms our empirical domain of investigation. In section 3 we zoom in on a subset of differential object marking systems, the so-called two-dimensional systems, in which the occurrence of overt case marking seems to be associated both with the animacy and the definiteness/specificity of the direct object. We show that these two features do not influence case marking in the same way but that definiteness/specificity only plays a role when overt case marking is not required by the animacy of the argument. In section 4 the different roles played by animacy and definiteness/specificity in differential object marking are argued to be a consequence of a fundamental difference between the two semantic features: whereas animacy is an inherent feature of noun phrases this is not the case for definiteness or specificity. Section 5 presents conclusions and some further discussion.

2 Differential Object Marking

In a language with differential object marking (DOM) one set of direct objects is case marked in one way and another set in a different way depending on features of the object (cf. Bossong 1985a, Bossong 1991, Aissen 2003). The phenomenon does not only surface in case marking but can also result in variation in agreement or word order. According to Bossong (1985a) over 300 languages in the world show a DOM system of some sort. Recurrent features associated with DOM are the animacy, definiteness, or specificity of the direct object. An example of animacy-based DOM is found in Malayalam (Asher and Kumari 1997; see also de Swart 2006), where animate, but not inanimate objects are marked. Consider the following examples:

MALAYALAM (Dravidian; Asher and Kumari 1997:203)
(1)   Avan oru paʃuvine vaɲɲi.
        he   a   cow.ACC buy-PAST
        'He bought a cow.'

(2)   ɲaan teeɲɲa   vaɲɲi.
      I   coconut buy.PAST
      'I bought a coconut.'

In (1) the animate object 'cow' appears in the accusative case whereas the inanimate object 'coconut' in (2) appears without overt case marking. A similar DOM pattern based on animacy is found in Guaraní (Bossong 1985b). A DOM system based on the definiteness of the object is found in the Semitic language Hebrew:

HEBREW (Semitic; Aissen 2003:453)
(3)   Ha-seret   herʔa   'et-ha-milxama.
      the-movie showed ET-the-war
      'The movie showed the war.'

(4)   Ha-seret   herʔa   (*'et)-milxama.
      the-movie showed ET-war
      'The movie showed a war.'

When the direct object 'war' is definite as in (3) it is preceded by the object marker *'et*. In case the object is indefinite as in (4) use of the object marker is excluded.[1] Definiteness and/or specificity influence DOM in many other languages such as Persian (Karimi 1996), Turkish (von Heusinger and Kornfilt 2005), and Amharic (Amberber 2005). The recurrent pattern in these languages is that only definite/specific objects are overtly case marked. The languages discussed so far are so-called one-dimensional DOM languages. That is, DOM in these languages is related to a single semantic feature be it either animacy or definiteness/specificity. There are also languages in which a combination of these features influences object case marking. Such systems can be referred to as two-dimensional DOM systems (cf. Aissen 2003) and are, for instance, attested in Hindi (e.g., Mohanan 1990) and many Romance languages (e.g., Spanish, Rumanian, Sardinian; see Bossong 1991 for references).

Thus, in Spanish direct objects can be preceded by the prepositional object marker *a* depending on the animacy and definiteness/specificity of the object.[2] The contrast between animate and inanimate objects is illustrated with the following three examples:

SPANISH (Romance; Bleam 2005:3-4)
(5)   Mari vió a la   mujer.
      Mari saw A the woman
      'Mari saw the woman.'

(6)   Mari vió al   gato.
      Mari saw A.the cat
      'Mari saw the cat.'

(7)   Mari vió (*a) la   mesa.
      Mari saw A   the table
      'Mari saw the table.'

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[1] Danon (2001) argues that the exact parameter is the occurrence of a definite article rather than semantic definiteness.

[2] Von Heusinger and Kaiser (2003) argue that in Standard Spanish animacy and specificity are the factors involved whereas in (South-)American variants of Spanish definiteness and specificity but not animacy influence DOM.

The human and animate direct objects in (5) and (6) respectively are marked with the prepositional object marker. This in contrast to the inanimate direct object in (7) for which this marker is prohibited. But also in the class of animate direct objects some objects resist the object marker as shown by (8):

SPANISH (Romance; Bleam 2005:5)
(8)   Mari vió (a) una mujer.
        Mari saw A a   woman
        'Mari saw a woman.'

The presence or absence of the object marker with an indefinite animate direct object depends on the specificity of the object. In case of a specific object the marker *a* has to be used. In case of a non-specific object *a* has to be absent. Thus, differential object marking in Spanish is determined by an interplay between animacy and definiteness/specificity.

Aissen (2003) presents an optimality-theoretic analysis of cross-linguistic DOM patterns which relies crucially on the following two hierarchies:

(9)   **Animacy Scale**: Human > Animate > Inanimate

(10)   **Definiteness Scale**: Pronouns > Proper Names > Definite NPs > Indefinite Specific NPs > Indefinite Non-specific NPs

Without going into the technical details here, Aissen argues that in DOM languages overt case marking is restricted to those objects which are located above a certain cut-off point in the relevant semantic hierarchy. Thus, in Malayalam in which animacy is the relevant factor only objects above the animate-inanimate cut-off point are marked with accusative case. Similarly, in Hebrew in which definiteness is the relevant hierarchy only objects above the definite-indefinite cut-off point are marked with the object marker *'et*. In order to account for two-dimensional DOM systems, Aissen crosses the two scales in (9) and (10) thus forming a larger feature matrix. Objects ranked high in this matrix are obligatorily marked, intermediate objects show optionality with respect to occurrence of the object marker, and low-ranked objects reject the object marker. Her system fares pretty well in describing two-dimensional DOM systems yet some issues receive an unsatisfactory treatment, in particular the relation between animacy and definiteness. In her discussion of individual two-dimensional DOM systems, Aissen seems to acknowledge that case marking does not behave exactly the same with respect to animacy as it does to definiteness. But this asymmetry is left unexplained in her formal analysis as the two features are treated on a par in the larger feature matrix describing two-dimensional DOM.

3   Animacy Takes Priority over Definiteness/Specificity in Two-Dimensional DOM

In this section we discuss the two-dimensional DOM systems of two South Asian languages, Hindi and Kannada. We argue that in these systems animacy takes priority over definiteness/specificity. As such we differ from Aissen's approach in which the occurrence of overt case marking in two-dimensional DOM systems is triggered or driven by animacy and definiteness on a par. Furthermore, we argue that in the cases discussed definiteness/specificity does not drive DOM but rather should be viewed as the interpretational result of the use of case marking. The different relations animacy and definiteness/specificity exhibit with respect to DOM are explained by reference to a fundamental difference between the two types of semantic features.

In Hindi direct objects can be marked with *ko*, the same marker that is used for indirect objects.[3] In the present discussion we limit ourselves to the use of *ko* on direct objects that occur without a determiner. The differential use of *ko* on direct objects has received much attention in the literature (see, e.g., Mohanan 1990, Butt 1993, Singh 1994, McGregor 1995, Aissen 2003, de Hoop and Narasimhan 2005, Kachru 2006) and two factors can be distinguished that influence it. On the one hand, there is animacy as *ko* is obligatory for objects that are human but not for objects that are animate or inanimate. On the other hand, the occurrence of *ko* is related to the definiteness or specificity of the direct object, but authors differ as to which factor they take to be the primary factor. Mohanan (1990), for instance, seems to relate DOM in Hindi mainly to definiteness with specificity playing a secondary role. Butt (1993), on the other hand, takes specificity to be the relevant notion but acknowledges that it interacts with definiteness. In this paper we do not make a principled choice for one or the other factor but in our discussion follow the respective authors the data come from. Whether we call the interpretation given to a *ko*-marked direct object definite or specific and that of an unmarked direct object indefinite or non-specific does not affect our claim that animacy takes priority over definiteness/specificity in the use of *ko*.[4]

Following the data in Mohanan (1990), human objects have to be obligatorily marked with *ko*. When a human object is marked with this object marker, it can be interpreted as definite or indefinite. When a human object occurs without *ko* this results in an ungrammatical sentence. This contrast is shown in (11) and (12) for the noun 'child'.

HINDI (Indo-Aryan; Mohanan 1990:103)

(11)   ilaa-ne   bacce-ko uthayaa
         Ila-ERG child-KO lift.PERF
         'Ila lifted the/a child.'

(12)   *ilaa-ne   baccaa uthayaa
         Ila-ERG child   lift.PERF

In the absence of a determiner, inanimate nouns, on the other hand, can either be marked with *ko* or be left unmarked. The use of *ko* does have repercussions for the interpretation associated with the direct object. An unmarked inanimate can be interpreted as definite or indefinite, as is shown in (13).

HINDI (Indo-Aryan; Mohanan 1990:103)

(13)   ilaa-ne haar   uthaayaa
         Ila.ERG necklace lift.PERF
         'Ila lifted a/the necklace.'

Definiteness of an inanimate noun is expressed by using *ko*. This is shown for the noun 'necklace' in (14) below.

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[3]In the interlinear gloss we label the use of *ko* on indirect objects as dative (DAT) and the use on direct objects as KO. In this paper we stay agnostic about the theoretical case status of *ko* on direct objects. Some authors identify it with accusative case (e.g., Mohanan 1990) and label the unmarked object with nominative case. Others reject this analysis and label the unmarked object nominative in presence of a non-nominative subject but accusative in the presence of a nominative subject (e.g., Anand and Nevins 2006, Woolford to appear). The status of *ko* is unclear under the latter account and is sometimes simply referred to as objective case.

[4]The distinction between definiteness and specificity is notoriously difficult (see von Heusinger 2002 for a discussion).

HINDI (Indo-Aryan; Mohanan 1990:104)

(14) ilaa-ne haar-ko   uthayaa
      Ila.ERG necklace-KO lift.PERF
      'Ila lifted the/*a necklace.'

The above examples show that both animacy and definiteness play a role in differential object marking in Hindi. Their roles are, nevertheless, clearly differentiated. Consider the table in (15).

	human	-human
KO	def/indef	def
Ø	*	def/indef

(15)

From this table we can conclude two things: (i) the use of *ko* on direct objects is primarily triggered by the animacy or more in particular humanness of the direct object; (ii) definiteness does not trigger the use of *ko* but rather is an effect of the use of this marker. Let us start with the second claim. If we were to claim that definiteness triggers case marking on Hindi direct objects we would have trouble explaining why indefinite human objects are marked with *ko*. Furthermore, it is left unexplained why in the absence of case marking both a definite and an indefinite reading is possible for non-human objects. If definiteness triggers case marking we would expect a definite reading always to co-occur with *ko*. The fact that both a definite and an indefinite reading is possible for an unmarked non-human object is well established (see Butt 1993) and either reading can be filtered out in a specific linguistic context. The indefinite reading can be assessed with the following example provided by Butt (1993) (who labels it the non-specific reading) in which the context of (16a) assures that the object in (16b) has to be interpreted as indefinite/non-specific.

HINDI (Indo-Aryan; Butt 1993:90-91)

(16) a. adnaan   aaj raat=kii   salen ke-liye murvii cah-taa   tʰaa
          Adnan.NOM today night=GEN curry for   chicken want-IMPF be.PAST
          'Adnan wanted chicken for tonight's curry.'
      b. us=ke xansaame-ne bazaar=se   murvii xariid-ii
          he=GEN cook-ERG   market=FROM chicken buy-PERF
          'His cook bought a chicken from the market.'

The definite interpretation of an unmarked direct object becomes obligatory in certain contexts involving movement of the direct object. Consider the following two examples:

HINDI (Indo-Aryan; Mohanan and Mohanan 1994:169)

(17) sunaar-ne   laḍkii-ko haar   bʰejaa.
      goldsmith-ERG girl-DAT necklace sent
      'The/?a goldsmith sent the/a necklace to the/a girl.'

(18) sunaar-ne   haar   laḍkii-ko bʰejaa.
      goldsmith-ERG necklace girl-DAT sent
      'The/?a goldsmith sent the/*a necklace to the/*a girl.'

The two examples in (17) and (18) show how word order influences the possible interpretations of an unmarked direct object. In (17) the direct object follows the indirect object and can be interpreted as either indefinite or definite. In (18) in which the direct object precedes the indirect object the only possible reading for the direct object is a definite one. This example clearly

shows that a definite reading is perfectly possible without the occurrence of overt case marking in this way providing counterevidence to an analysis in which the occurrence of the case marker is triggered by the definiteness of the object. In order to establish that the occurrence of *ko* is not prohibited by the fact that it has already occurred on the indirect object, which could be argued in order to save an analysis in which definiteness triggers case marking, we include the following example:

HINDI (Indo-Aryan; Bhatt and Anagnostopoulou 1996:13)
(19) Ram-ne   chitthii-ko Anita-ko   bhej-aa
      Ram-ERG letter-KO   Anita-DAT send-PERF
      'Ram send the letter to Anita.'

In (19), the case marker *ko* appears on the direct object 'letter' independent of the fact that it already occurs on the indirect object. Thus if definiteness really triggers the occurrence of *ko*, we would have expected it to occur in (18) as well, as its use is not ruled out on other grounds.[5]

Definiteness plays a role in differential object marking in Hindi but so far we have established that it is not responsible for the occurrence of the object marker. The other possibility is that the use of the case marker results in a definite interpretation. This is in correspondence with the conclusion reached in Butt (1993) who argues that *ko* is a marker of specificity. The fact that *ko*-marked objects have to be interpreted as definite was already established in example (14) and is also demonstrated in (20). The direct object 'chicken' in (20) has to be interpreted as definite (specific in Butt's terminology) and as such it is infelicitous in the indefinite/non-specific requiring context in (16).

HINDI (Indo-Aryan; Butt 1993:91)
(20) xansaame-ne bazaar=se   murvii-ko xariid-aa
      cook-ERG   market=FROM chicken-KO buy-PERF
      'The cook bought a particular/the chicken from the market.'

The characterization of *ko* as a definiteness/specificity marker (as argued for in Butt 1993) does not hold across-the-board, but only within the domain of non-human objects. This brings us to the first claim we made above with respect to the table in (15). If we were to characterize *ko* as a definiteness/specificity marker we would leave unexplained the fact that the occurrence of this marker on a human direct object can result in both a definite and an indefinite reading, cf. (11) above. In our understanding the absence of an unambiguous reading for *ko*-marked human direct objects is due to the fact that the case marking with these objects is required by the animacy feature of the object. Human direct objects require overt marking with *ko*, i.e., high animacy triggers the accusative case marking, and therefore this case marker can no longer trigger an alternation in definiteness. This is in contrast to less animate nouns where the case alternation clearly influences definiteness. In other words, the marking of direct objects with *ko* due to animacy takes priority over the function of *ko* as a definiteness marker. Only in contexts in which the case marker is not required by the animacy of the direct object can it be used to encode definiteness.

Evidence for the claim that animacy takes priority over definiteness in differential object marking can also be found in Kannada, a Dravidian language with a differential object marking sys-

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[5]The double occurrence of *ko* does have repercussions for the possible word orders. In case both the direct and indirect object are marked with this case marker the direct object has to precede the indirect object (cf. Bhatt and Anagnostopoulou 1996).

tem very similar to that of Hindi. DOM in Kannada is discussed extensively in Lidz (1999,2006). As in Hindi the occurrence of accusative case on direct objects interacts with the animacy and specificity of the object. In Kannada animate direct objects are obligatory marked with accusative case as is shown by the contrast in grammaticality between (21) and (22).

KANNADA (Dravidian; Lidz 2006:11)

(21)   *Naanu sekretari huDuk-utt-idd-eene.
       I.NOM secretary look.for-NPAST-be-1SG
       'I am looking for a secretary.'

(22)   Naanu sekretari-yannu huDuk-utt-idd-eene.
       I.NOM secretary-ACC   look.for-NPAST-be-1SG
       'I am looking for a secretary.'

Inanimate objects, on the other hand, can occur with or without accusative case:

KANNADA (Dravidian; Lidz 2006:11)

(23)   Naanu pustaka huDuk-utt-idd-eene.
       I.NOM book   look.for-NPAST-be-1SG
       'I am looking for a book.'

(24)   Naanu pustaka-vannu huDuk-utt-idd-eene.
       I.NOM book-ACC   look.for-NPAST-be-1SG
       'I am looking for a book.'

As for the interpretation of the direct objects, Lidz notes that an animate direct object marked with accusative case can either be interpreted as non-specific or specific (de dicto or de re in the terminology used by Lidz). The same holds for inanimate objects without accusative case. Inanimate objects which occur with accusative case have to be interpreted as specific (de re). The pattern is summarized in the table in (25).

(25)

	animate	inanimate
ACC	de dicto/de re	de re
Ø	*	de dicto/de re

This pattern looks very similar to that of Hindi and again we find that an analysis of the accusative case as a specificity marker breaks down in the domain of animate direct objects. It does seem that also in this language accusative case cannot be used as a specificity marker when it is required by the animacy of the direct object. In other words, animacy takes priority over definiteness.

Our analysis differs from the one provided by Aissen (2003) who treats animacy and definiteness on a par. Concentrating on Hindi, this difference emerges most clearly in the domain of non-human definite objects. As shown in the table in (15) above such objects can occur with or without *ko*. From a perspective in which the definiteness of an object triggers the occurrence of the object marker this optionality is unexpected. In order to model this optionality Aissen assumes that the constraint that forces overt case on definite non-human objects can rerank with respect to a constraint which penalizes the use of overt case marking. When the former constraint outranks the latter the definite object will be marked with *ko* but not when the constraint ranking is reversed. On our account in which definiteness does not trigger the use of case mark-

ing but rather is a result of the use of the case marker we do not have to take recourse to such optionality to explain this pattern. Instead, we can analyze the pattern in terms of the speaker taking into account the perspective of the hearer. In case of a human direct object the speaker is forced to use *ko* due to the animacy feature of the object. In the case of a non-human direct object the animacy feature does not require *ko* and the marker can be used to express the definiteness of the object. In this case the speaker has a choice: if he wants to be sure that the hearer will interpret the direct object as definite he has to use *ko*. If he, on the other hand, does not want to force a particular interpretation of the direct object, he can leave it unmarked. Thus, although on the surface the pattern may look like one involving true optionality, i.e., the speaker can choose whether or not to use *ko* on a definite direct object, it rather seems to be the case that the presence or absence of *ko* is the result of a principled choice on behalf of the speaker to mark the direct object explicitly as definite or not.

Animacy-related case marking and definiteness-related case marking seem to be instantiations of a more fundamental division among case alternations suggested in de Hoop and Malchukov (to appear). These authors propose a distinction within the class of case alternations between split and fluid case alternations. In a split case alternation one type of noun phrase, e.g., animate ones, occurs with one case and another type of noun phrase, e.g., inanimate ones, occurs with another case. In a fluid case alternation, on the other hand, the same noun phrase in the same linguistic context can alternatively take one or the other case marker with a concomitant meaning difference. For instance, a given noun phrase with accusative case is interpreted as specific whereas the same noun phrase without the accusative case is interpreted as non-specific. Given that animacy-related case marking represents a split case alternation and that case marking related to definiteness/specificity represents a fluid case alternation, we can conclude that split case alternations take priority over fluid case alternations. In the next section we discuss why this should be the case.

4 A Fundamental Difference between Animacy and Definiteness/Specificity

Why should animacy, or a split case alternation, take priority over definiteness, or a fluid case alternation, in the domain of case marking? The answer to this question lies in a fundamental difference between the semantic feature of animacy and that of definiteness/specificity. Animacy is an inherent feature of noun phrases. Every noun is lexically specified for an animacy feature and this feature cannot be altered by linguistic structure. If we put case morphology on an animate noun such as *man* this does not change it from an animate referring noun into an inanimate referring noun. Indeed, on a more general note, one has to look very hard in the languages of the world to find something that can be truly labelled as an animacy marker, a piece of morphology that marks and can change the animacy feature of a noun. The opposite holds for definiteness and specificity. Nouns are not inherently specified for definiteness or specificity. But in many languages there exist linguistic devices which can make a given noun phrase definite or specific. In English, for instance, the same noun *man* can be turned into a definite noun phrase by addition of the article *the* and likewise indefinite by means of the article *a*. English lacks a pure specificity marker, although the content words *certain* and *particular* seem to come close, but this feature is attributed to nouns and can be changed in context. There are nevertheless languages which do have dedicated pieces of morphology to mark the specificity of nouns. Case marking is an often cited example of such a device. Well-known is the case of Turkish in which accusative case on direct objects marks them as specific and the same thing holds for embedded subjects with genitive case (see von Heusinger 2002, von Heusinger and Kornfilt 2005, and Kornfilt, to appear for detailed discussion). Other languages for which it has been argued that case marking indicates the specificity of a noun include Persian (e.g., Karimi 1996) and

Gujarati (Mistry 1998).

Thus, animacy and definiteness/specificity differ in a very fundamental way from one another. Animacy is an inherent feature of nouns, a feature which cannot be changed. Definiteness and specificity, on the other hand, are not lexically specified for nouns but are variable features which can be changed by means of morphology or context. In the DOM systems discussed above these two features are treated differently: case is first assigned on the basis of animacy and for the nouns which do not have the required animacy feature case can be used to indicate definiteness/specificity. The observation that animacy takes priority over definiteness/specificity can be explained by the fact that only the first feature is an inherent feature of nouns. Due to the fixed animacy value of a noun a case system in which animacy takes priority over definiteness/specificity is the only possible way in which one case morpheme can make reference to both features. The reverse situation is hard to think of: imagine a system in which case is first assigned on the basis of definiteness and for nouns which do not have the required definiteness feature case can be used to indicate the animacy of a noun. Such a system could not exist as animacy is an inherent feature of nouns associated with a noun independent of its case morphology.

5 Conclusions and Discussion

Many authors have argued that there exists a relation between case morphology, on the one hand, and semantic interpretation, on the other. A recurrent pattern is that the presence of overt case corresponds with a strong interpretation, i.e., definite, specific, whereas the absence of case corresponds with a weak interpretation, i.e., indefinite, non-specific. We have shown that such an across-the-board correlation between semantic interpretation and case morphology often cannot be maintained as the association between a certain case and a certain interpretation can be counteracted by the requirement of this case to occur due to the inherent semantic feature of an argument, i.e., its animacy. The fact that animacy takes priority over definiteness and/or specificity in DOM systems can be explained by the fact that animacy, but not definiteness/specificity, is an inherent feature of nouns, a feature which cannot be changed.

The different relations towards case marking exhibited by animacy and definiteness/specificity can be analyzed as reflections of a more fundamental distinction among case alternations, that between split and fluid alternations. A case alternation based on animacy exemplifies a split alternation as within one linguistic context, i.e., animate nouns, case marking is obligatory, whereas in another linguistic context, i.e., inanimate nouns, case marking is prohibited. A case alternation based on definiteness/specificity, on the other hand, exemplifies a fluid case alternation as within one linguistic context the same noun can either be case marked or not with a resulting change in meaning. Thus, in Hindi, the fact that human nouns obligatory take *ko* represents a split case alternation between human and non-human nouns. The fact that within the class of non-human nouns a noun can either take *ko* or not with a concomitant change in meaning represents a fluid alternation. Animacy and definiteness/specificity are not the only features on the basis of which split and fluid case alternations are attested. Split alternations are, for instance, also found on the basis of NP type. In many languages, only nominal but not pronominal subjects receive ergative case (so-called split-ergativity) whereas pronominal but not nominal direct objects receive accusative case. Danon (2001) argues that in Hebrew only direct objects with the definite determiner *ha* are marked with the object marker, which can be analyzed as a split based on syntactic definiteness. Not only properties of nouns or NPs can drive split alternations but also properties of sentences. For instance, in Hindi we only find ergative subjects in perfective sentences, whereas in other languages ergative subjects are only found in subordinate

clauses but not in main clauses (see Dixon 1994 for discussion). As for fluid alternations, apart from definiteness and specificity, volitionality often plays a role such that the presence of certain case morphology indicates that the argument performed the action described by the verb in a volitional manner.

Hindi and Kannada provide prime examples of languages in which a single case morpheme is involved in both a split and a fluid case alternation. Further research has to show whether there are also languages which show a similar pattern with respect to splits involving other features and what is the range of possibilities. An interesting case is found in Spanish in which more than one split alternation takes priority over a fluid alternation. In examples (5)–(8) above we have shown that the Spanish object marker *a* occurs with some but not other direct objects. The distribution of this marker has been extensively discussed in the literature but still is not entirely understood (for discussion, see Brugé and Brugger 1996, Torrego 1998, Delbecque 2002, von Heusinger and Kaiser 2003, Leonetti 2004, Bleam 2005). The occurrence of *a* follows an intricate pattern in which different split alternations and a fluid case alternation interact. First there is a split between animate and inanimate noun phrases in that only the former can take the object marker.[6] Within the class of animate direct objects, the use of *a* is obligatory for what we could call syntactically definite objects such as proper names, pronouns, and NPs preceded by a definite article, a demonstrative, (certain) quantifiers, or possessives (see Brugé and Brugger 1996 for discussion), but not for indefinite objects. Finally, there exists a split on the basis of mood illustrated in (26) and (27):

SPANISH (Romance; Bleam 2005:17)
(26)   Juan busca   *(a) un estudiante que habla   francés.
        Juan look.for A   a   student   that speaks.INDIC French
        'Juan is looking for a student who speaks French.'

(27)   Juan busca   (a) un estudiante que hable   francés.
        Juan look.for A   a   student   that speaks.SUBJ French
        'Juan is looking for a student who speaks French.'

When an animate direct object is modified by a relative clause it has to be obligatorily preceded by *a* in case the finite verb in the relative clause is in the indicative (cf. (26)) but may be optionally preceded by *a* (given that it is an indefinite noun phrase) when the finite verb in the relative clause is in the subjunctive mood (cf. (27); see von Heusinger and Kaiser 2003:48-50 for an overview; see also Bleam 2005:16-17). In the latter case the object can be interpreted as specific only when it is preceded by the object marker. The pattern in (26) in which the occurrence of *a* results in a specific interpretation and the absence of *a* does not is the general pattern for direct object for which *a* is not obligatory, i.e. indefinite and bare nouns.[7] In other words, Spanish shows a fluid case alternation on the basis of specificity in those cases where the use of the object marker is not required by one of the split case alternations. Thus, Spanish follows the pattern discussed above for Hindi and Kannada in which split alternations take priority over fluid alternations. Future research has to show whether this holds for other languages as well.

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[6]The language is changing at this point though as the object marker is also intruding into the domain of inanimates (for discussion, see Delbecque 2002, Company 2002, Morimoto and de Swart 2006).

[7]As noted by Leonetti (2004) direct objects without *a* can only be interpreted as non-specific. Object which are preceded by *a* can be interpreted as both specific and non-specific. This is exactly the opposite pattern to that found in Hindi and Kannada.

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