

**A PARALLEL ANALYSIS OF HAVE-TYPE COPULAR
CONSTRUCTIONS IN TWO HAVE-LESS
INDO-EUROPEAN LANGUAGES**

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Abstract

This paper presents data from two Indo-European languages, Irish and Hindi/Urdu, which do not use verbs for expressing possession (i.e., they do not have a verb comparable to the English verb *have*). Both of the languages use copula constructions. Hindi/Urdu combines the copula with either a genitive case marker or a postposition on the possessor noun phrase to construct possession. Irish achieves the same effect by combining one of two copula elements with a prepositional phrase. I argue that both languages differentiate between temporary and permanent instances, or stage-level and individual-level predication, of possession. The syntactic means for doing so do not overlap between the two: while Hindi/Urdu employs two distinct markers to differentiate between stage-level and individual-level predication, Irish uses two different copulas. A single parallel LFG analysis for both languages is presented based on the PREDLINK analysis. It is shown how the analysis is capable of serving as input to the semantics, which is modeled using Glue Semantics and which differentiates between stage-level and individual-level predication by means of a situation argument.

In particular, it is shown that the inalienable/alienable distinction previously applied to the Hindi/Urdu data is insufficient. The reanalysis presented here in terms of the stage-level vs. individual-level distinction can account for the data from Hindi/Urdu in a more complete way.

1 Introduction

There are languages that do not use verbs to express possession relations. In several languages ranging from Maltese (Comrie, 1989) to Hebrew (Zuckermann, 2009) to Irish to Hindi/Urdu, possession is mediated by the use of copula verbs together with noun phrases, prepositional phrases or other nominal categories. Languages that use verbs for possession are sometimes called *habere languages* (from Latin *habere* ‘have’), whereas languages without such verbs are sometimes called *non-habere languages* (Zuckermann, 2009). Two languages of the latter kind are Irish and Hindi/Urdu, both Indo-European languages. The observation is that in both of these languages, there are distinct possibilities for constructing possession, so that a couple of differing research questions emerge: What governs the use of the different available constructions? How can these differences be formalized in a syntactic-semantic framework? This paper provides a thorough introduction of the data for Irish and Hindi/Urdu, examines the syntactic and semantic properties of the data, and eventually presents a novel, parallel analysis for *have*-type copula constructions that includes a semantic component.

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2 Data — General Introduction

In both Hindi/Urdu and Irish, two languages that do not use verbs for expressing possession. Possessive copular constructions (PCCs) are used to link the possessor to the possessee. This section merely gives a very brief overview of the data in both languages.

2.1 Hindi/Urdu Data

Schmidt (1999) mentions that there are two different constructions that express possession in Hindi/Urdu: 1) possessor phrase marked by genitive case marker *ka, ke, ki*; 2) possessor phrase marked by complex postposition *ke pas*.

Possessor Phrase Marked by *ka, ke, ki* Butt and King (2004) have shown that the genitive marker *ka, ke, ki* is a case clitic heading a case phrase (KP). Schmidt (1999) notes that sentences with possessor KPs marked by *ka, ke, ki* generally denote “inalienable” possession relations, such as kinship, body parts, reputation, landed property etc. In (1), some examples for possession relations involving the markers *ka, ke, ki* are given.¹

- (1) a. *nadya ke do b^hai hē.*
Nadya.F.S.Obl Gen.M.P two brother.M.P be.Pres.3.P
'Nadya has two brothers.'
- b. *yasin ki bari nak hē.*
Yassin.M.S.Obl Gen.F.S big.F.S nose.F.S be.Pres.3.S
'Yassin has a big nose.'
- c. *is tale ki koi cabi nahī hē.*
this.Obl lock.M.S.Obl Gen.F.S any key.F.S not be.Pres.3.S
'This lock has no key.'
- adapted from Schmidt (1999), p. 86

At first sight, it seems that Schmidt (1999)'s prediction is borne out by these examples. (1a) through (1c) all express relations of “inalienable” possession.

Mohanani (1994) has already given an account of the possessive markers *ka, ke, ki*. Using subjecthood tests involving reflexive pronouns and control, she showed that they mark genitive subjects. The nature of the other nominal constituents (e.g. *do b^hai* ‘two brothers’ in (1a)), however, was not explained any further by Mohanani (1994). For the purpose of this paper, I assume that these nominals are predicative complements, and that the copula *ho* ‘be’ links this nominal predicate to its subject. This is in line with recent typological overviews of copula predication across languages (Stassen, 1997; Pustet, 2003). Note that these nominals cannot be objects, since passivization is not possible.

¹In the glosses used throughout this paper, the following shorthands are used:
M - masculine, F - feminine, S - singular, P - Plural, 1/2/3 - 1st/2nd/3rd person, Pres - present tense, Past - past tense, Obl - oblique form, Gen - genitive case, Pron - pronoun, Poss - possessive, Art - article, Def - definite, Part - particle, Int - interrogative, Emph - emphatic.

Possessor Phrase Marked by *ke pas* Butt and King (2004) argue that *ke pas* is a complex postposition consisting of the oblique form of the genitive case clitic *ke* and the postposition *pas* ‘near’. Sentences with possessor PPs marked by *ke pas* generally express “alienable” possession, i.e., (temporary) physical ownership, control of a tangible object, etc. In (2), some examples for “alienable” possession relations are given, involving the marker *ke pas*.

- (2) a. *nadya ke pas qalam hε.*
 Nadya.F.S.Obl Gen.Obl near pen.M.S be.Pres.3.S
 ‘Nadya has a pen.’
- b. *d^hobi ke pas saikal hε.*
 washerman.M.S.Obl Gen.Obl near bicycle.F.S be.Pres.3.S
 ‘The washerman has a bicycle.’ from Schmidt (1999), p. 86
- c. *mere pas² do seb hε.*
 Pron.Poss.M.Obl near two apple.M.P be.Pres.3.P
 ‘I have two apples.’

Again, at first sight, it seems that we find the predictions by Schmidt (1999) borne out by these examples, since they all express “alienable” possession as described above. We shall return to the Hindi/Urdu data in Section 4.

2.2 Irish Data

In Irish, there are two copula verbs: *is* and *bí*. Possession in Irish may be expressed by using either one of these together with a prepositional phrase (Ó Siadhail, 1989; Stenson, 1981): 1) the copula *is*: possessor PP marked by the preposition *le* ‘with’; 2) the copula *bí*: possessor PP marked by the preposition *ag* ‘at’.

The two Irish copulas have been linked to different levels of predication, namely *is* to individual-level and *bí* to stage-level predication (Stenson, 1981; Doherty, 1996); however, none of the sources attempt to give a conclusive overview of the data, which would motivate such an analysis.

The Copula *is* Irish is a verb-initial language; as such, copulas appear sentence-initially. The syntax of *is* is straightforward. The copula links a subject to a predicate complement. In PCCs, exemplified in (3), the predicate complements are realized as PPs marked by the preposition *le* ‘with’. The subject occurs after the predicate and is not case marked, i.e., bears common case.³

- (3) a. *Is le Pádraig an carr nua.*
 be.Pres with Patrick.M.S Art.Def car.M.S new
 ‘The new car is Patrick’s.’ adapted from Stenson (1981), p. 98

²The oblique possessive pronoun *mere* conveys a genitive meaning, which accounts for the lack of the oblique genitive case clitic *ke*.

³In Irish linguistics, the term ‘common case’ is used to refer to nominative/accusative case, since the two are homonymous in Irish.

- b. Is liom an caisleán.
 be.Pres with.1.S Art.Def castle.M.S
 ‘The castle is mine.’
- c. An leatsa an talamh chomh maith?
 Part.Int with.2.S.Emph Art.Def ground.M.S as-well
 ‘Is the ground yours as well?’

The Copula *bí* The copula *bí* may also be used in Irish to link a subject to a predicate complement. In PCCs involving the copula *bí*, the predicate complements again surface as PPs, marked by the preposition *ag* ‘at’. Note that in copular clauses involving *bí*, the subject occurs postverbally, and the predicate complement occurs after the subject. The word order is thus different from PCCs involving *is*. Ramchand (1996) observes the same word order differences for closely-related Scottish-Gaelic.

- (4) a. Tá⁴ an carr nua ag Pádraig.
 be.Pres.3.S Art.Def car.M.S new at Patrick.M.S
 ‘Patrick has the new car.’ adapted from Stenson (1981), p. 98
- b. Tá peann agam.
 be.Pres.3.S pen.M.S at.1.S
 ‘I have a pen.’

2.3 Intermediate Summary

The data presented in Sections 2.1 and 2.2 pose several questions: How can we test the appropriate contexts of the constructions involved? What exactly governs the use of *ka*, *ke*, *ki* vs. *ke pas* and *is* vs. *bí* constructions in Hindi/Urdu and Irish, respectively? If there is a systematic semantic difference, how can that difference be formalized, and also implemented in a framework such as LFG?

3 Stage- and Individual-Level Predicates

The distinction of stage-level predicates (SLPs) versus individual-level predicates (ILPs) is grounded in the core semantic intuition that some predicates express rather essential, permanent, and/or immutable properties, while others involve transitory, inessential properties (Arche, 2006; Ogawa, 2001; Kratzer, 1995; Diesing, 1988). While this intuition has faced a substantial amount of criticism and counterexamples from a variety of researchers and language data (e.g., Jäger, 1999; Maienborn, 1999), the basic tendency of predicates falling into exactly these two categories has prevailed cross-linguistically (Arche, 2006; Ogawa, 2001).

⁴The form *tá* is a present tense form of the copula *bí*.

3.1 Carlson (1977) — The First Encounter

Carlson (1977) noticed that predicates differ in their acceptability when occurring, for example, after object NPs of English perception verbs, such as *see*, *notice*, *hear*, *smell* etc.:

- (5) He saw John in the garden.
- (6) He saw John naked. #He saw John intelligent.
- (7) He saw John smoke a cigarette. #He saw John love Mary.

The generalization deduced by Carlson (1977) was that the unacceptable secondary predicates that occur after the object NPs of perception verbs (e.g., *intelligent*, *love Mary*) generally express permanent, inherent properties, while acceptable ones generally express transitory, coincidental properties. Basically, he analyzed sequences such as *saw John naked* as expressing a *seeing* action of a *stage* of the direct object *John*, and that stage is defined by the predicate following the direct object. If that predicate does not describe a stage, the sentence is not acceptable. Carlson (1977) called the predicates that are unacceptable in this context *individual-level predicates* (ILPs) and the acceptable ones *stage-level predicates* (SLPs).

3.2 Kratzer (1995) and the Situation Argument

To explain the above contrasts, several analyses were proposed over the years. One of the most influential approaches is Kratzer (1995). Here, it is assumed that the syntactic function of the copula is uniform across languages and constructions: the copula element merely links the subject and the predicate. The semantic function, however, differs: in languages such as English and German, both ILPs and SLPs can occur in the predicate of copula constructions. Kratzer (1995) therefore argued that in these languages, we find two homonymous copula verbs with respect to their semantics; while one copula embeds only stage-level, the other embeds only individual-level predicates:

- (8) INTELLIGENT(Ravi) ‘Ravi is intelligent.’ (ILP)
- (9) $\exists s$ [IN-THE-GARDEN(Ravi, s)] ‘Ravi is in the garden.’ (SLP)

(8) depicts the semantics of an ILP. There is no additional argument besides the subject, and (8) predicates the property *intelligent* of the subject *Ravi*, thereby making a general, time-and-situation-independent statement about *Ravi*. (9), on the other hand, depicts the semantics of an SLP; it has an extra argument *s*, called the *situation argument*, which embeds *Ravi*'s property of being *in the garden* in some situation (Kratzer, 1995; Chierchia, 1995; Maienborn, 1999). (9) predicates the state *in the garden* of the subject the situation argument, thereby making *in the garden* time-and-situation-dependent.

3.3 Testing for ILPs and SLPs

Apart from the test involving perception verbs, which was part of Carlson's original motivation to assume the ILP/SLP contrast, other tests have been identified to decide the nature of a predicate. Here, I present a collection of these tests, identified e.g. in Carlson (1977), Diesing (1988) and Kratzer (1995).

The Temporal Modification Test While SLPs are generally good with temporal adverbials, ILPs tend to become unacceptable:

- (10) a. John is in the garden right now.
b. John was angry yesterday.
c. #Ravi is intelligent today.
d. #Nadya was a vegetarian a few hours ago.

The Locative Modification Test SLPs generally accept locative modification, while ILPs do not:

- (11) a. Ravi smokes a cigarette in the kitchen.
b. Sam shouted on the soccer field.
c. #Ravi is likeable in the kitchen.
d. #Nadya is a vegetarian on the soccer field.

The Lifetime Changing Test Changing the tense of a sentence has an effect on the perceived lifetime of the individual(s) affected by the predication, but only with ILPs:

- (12) a. Sam was angry.
→ *does not* necessarily imply that Sam does not exist anymore
b. John was in the garden.
→ *does not* necessarily imply that John does not exist anymore
c. Ravi was intelligent.
→ *implies* that Ravi does not exist anymore
d. Sam loved Mary.
→ *implies* that Sam does not exist anymore

Summing up, there are several well-established tests that help in identifying stage- and individual-level predicates. In Section 4, we examine the Hindi/Urdu data in light of these tests, and in Section 5, we take a closer look at the Irish data.

3.4 Stage- and Individual-Level Predicates and Possession

Jackendoff (1983) notes that there are several distinct notions of possession. There is a well-known difference between alienable possession and inalienable possession; languages often distinguish verbs and constructions for these two categories. Moreover, Jackendoff also shows that alienable possession in turn further divides into ownership of objects and the tangible, temporary control of objects. Some past research has already focused on these two types of distinction regarding possession, and their connection to stage- vs. individual-level predicates (Ogawa, 2001; Kyunghwan, 1989). I will argue for a different take and present evidence for the assumption that, in Hindi/Urdu, the traditional distinction between inalienable and alienable possession is insufficient. As shown in the next section, the difference in the data can be explained for both Hindi/Urdu and Irish in a more complete fashion by assuming a situation argument à la Kratzer (1995), present in stage-level instances of possession (rendering the possession time-and-situation-dependent) and not present in individual-level instances (rendering the possession time-and-situation-independent).

4 A Closer Look at Hindi/Urdu

In this section, the Hindi/Urdu data is re-examined and tested, based on the standard tests for the ILP/SLP distinction (e.g. Carlson (1977), Diesing (1988) and Kratzer (1995); Section 3.3). The main argument is that the distinction between inalienable and alienable possession is insufficient to account for the data. The data can be accounted for in a more complete fashion by assuming the ILP/SLP distinction. A novel analysis of Hindi/Urdu PCCs is offered, whereby information on predication level must be part of the lexical entries of the possessive markers involved (*ka*, *ke*, *ki* and *ke pas*).

4.1 Applying the Predication Level Tests to Hindi/Urdu PCCs

If our predictions made above in Section 3.4 are correct, then we would expect instances of inalienable possession (those marked by *ka*, *ke*, *ki*) to pattern like individual-level predicates, and instances of alienable possession (marked by *ke pas*) to pattern like stage-level predicates.

Temporal Adverbials If we assume the Hindi/Urdu PCCs with *ka*, *ke*, *ki* to express individual-level possession, modifying them using temporal adverbials should render them ungrammatical or at least questionable. This prediction is borne out by the data shown below. All the sentences in (13) are judged as questionable by native speakers of Hindi/Urdu; without any context given, they are borderline sentences.⁵

⁵See Section 4.2, however, for a discussion of this statement.

- (13) a. ??aj nadya ke do b^hai hẽ.
today Nadya.F.S.Obl Gen.M.P two brother.M.P be.Pres.3.P
'Today, Nadya has two brothers.'
- b. ??ab yasin ki bari nak he.
now Yassin.M.S.Obl Gen.F.S big.F.S nose.F.S be.Pres.3.S
'Today, Yassin has a big nose.'
- c. ??ab is tale ki koi cabi nahĩ he.
now this.Obl lock.M.S.Obl Gen.F.S any key.F.S not be.Pres.3.S
'Today, this lock has no key.'

Conversely, the acceptability of the examples with the marker *ke pas* is not affected:

- (14) a. aj nadya ke pas qalam he.
today Nadya.F.S.Obl Gen.Obl near pen.M.S be.Pres.3.S
'Today, Nadya has a pen.'
- b. aj d^hobi ke pas saikal he.
today washerman.M.S.Obl Gen.Obl near bicycle.F.S be.Pres.3.S
'Today, the washerman has a bicycle.'
- c. ab mere pas do seb hẽ.
now Pron.Poss.M.Obl near two apple.M.P be.Pres.3.P
'Now, I have two apples.'

If we assume *ka*, *ke*, *ki* marks ILPs of possession in Hindi/Urdu PCCs, then the data above is expected. It does not make sense to specify temporal adverbials when describing inherent possession. Assuming that there is no further contextual information given, we suppose that if Yassin had a big nose yesterday/3 months ago/when he was eight, he probably has a big nose today, and will have a big nose in the future.

Lifetime Effects The following sentences in (15) with the copula in its past form are acceptable. However, the past form of the copula has a lifetime effect on the possessor KP; without any further context given, the sentences seem to imply that the possessor or (part of) the possessee does not exist anymore.

- (15) a. yasin ki bari nak thI
Yassin.M.S.Obl Gen.F.S big nose.F.S be.Past.F.S
'Yassin had a big nose.'
→ implies that Yassin is not alive anymore
- b. nadya ke do b^hai t^he.
Nadya.F.S.Obl Gen.M.P two brother.M.P be.Past.M.P
'Nadya had two brothers.'
→ implies that Nadya is not alive anymore

On the other hand, the following examples with *ke pas* are not only acceptable; they also do not imply that the possessors/possesseees do not exist anymore.

- (16) a. *nadya ke pas qalam t^ha.*
 Nadya.F.S.Obl Gen.Obl near pen.M.S be.Past.M.S
 ‘Nadya had a pen.’
- b. *mere pas do seb t^he.*
 Pron.Poss.M.Obl near two apple.M.S be.Past.M.P
 ‘I had two apples.’

Choice of the Possessee If *ka*, *ke*, *ki* are exclusively used for marking inherent, more permanent instances of possession, and *ke pas* is used exclusively for marking more coincidental, temporary ones, then we can make a prediction: exchanging them in a given context will have effects on the sentences in terms of acceptability. The prediction is borne out by examples such as the following.

- (17) a. *??nadya ka qalam hε*
 Nadya.F.S.Obl Gen pen.M.S be.Pres
 ‘Nadya has a pen.’
- b. *??d^hobi ki saikal hε.*
 washerman.M.S.Obl Gen.M.S bicycle.F.S be.Pres.3.S
 ‘The washerman has a bicycle.’

In unmarked contexts, there is no inherent possession relation between *nadya* and *qalam* or between *d^hobi* and *saikal*, but since *ka*, *ke*, *ki* can only mark inherent possession relations, the above sentences are questionable.

Context Construction Assume for (17a) that we are looking at a set of pens, and we specifically want to find out for a single one who it belongs to. In this context, the sentence becomes acceptable; see (18a). Similarly, (17b) is acceptable in a setting where we are looking at a set of bicycles, then point at one of them, and ask someone who it belongs to, getting (18b) as the answer.⁶ This is not expected if we assume a simple binary *alienable/inalienable* dichotomy as in Schmidt (1999) or Mohanan (1994).

- (18) a. *nadya ka ye qalam hε*
 Nadya.F.S.Obl Gen.M.S this pen.M.S be.Pres
 ‘Nadya owns this pen.’
- b. *d^hobi ki ye saikal hε.*
 washerman.M.S.Obl Gen.M.S this bicycle.F.S be.Pres.3.S
 ‘The washerman owns this bicycle.’

⁶Note that in both examples, to accommodate the context, the Hindi/Urdu demonstrative *ye* ‘this’ is introduced, and that for both contexts, the English translations in (17) have to change to a definite possessee, since the possessee was introduced beforehand in the question.

4.2 Mohanan's Account (1994): Inalienable/Alienable Possession or Ownership/Control?

Mohanan (1994) has already given an account of the possessive markers *ka*, *ke*, *ki* and *ke pas*. Using subjecthood tests involving reflexive pronouns and control, she shows that both mark genitive subjects, although the exact nature of *ke pas* is not explained. More importantly, she explains the contrasts in the data based on an *inalienable vs. alienable* dichotomy, and not in terms of a *permanent vs. temporary* (or *individual-level vs. stage-level*) distinction. She argues that *ka*, *ke*, *ki* marks inalienable possession relations, while *ke pas* expresses purely material ownership. This seems plausible for examples such as (1a-1c). I argue that convention decides whether the inalienable/alienable distinction applies to a possession relation or not. Consider the following examples.

- (19) a. yasin ki bari nak he.
 Yassin.M.S.Obl Gen.F.S big.F.S nose.F.S be.Pres.3.S
 'Yassin has a big nose.'
- b. aj yasin ki bari nak he.
 today yasin.M.S.Obl Gen.F.S big.F.S nose.F.S be.Pres.3.S
 'Today, Yassin has a big nose.'

In (19a), we have a case of inalienable possession, which is between Yassin and his big nose. Since we know that the possession relation between the two is by convention inalienable, the *ka*, *ke*, *ki* marker is used. Assume for (19b) a context where Yassin's nose is swollen on that day due to an accident or plastic surgery. In (19b), the same possession relation is expressed, and even though we find a temporal adverbial here, convention selects the marker *ka*, *ke*, *ki*.

Questions arise, however, in light of data such as (17a-17b) vs. (18a-18b). In such examples, the convention selects *ke pas*, since generally, the possession relation between a person and a pen cannot be said to be inalienable. If someone utters the English sentence *Nadya has a pen.*, the first interpretation coming to mind is that Nadya has a pen at her disposal, not that she owns a pen. However, consider that in Section 17, it was noted that in certain contexts, it is possible to replace *ke pas* with *ka*, *ke*, *ki*. The relevant examples are given below in (20).

- (20) a. nadya ke pas qalam he.
 Nadya.F.S.Obl Gen.Obl near pen.M.S be.Pres.3.S
 'Nadya has a pen.'
- b. nadya ka ye qalam he
 Nadya.F.S.Obl Gen.M.S this pen.M.S be.Pres
 'Nadya owns this pen.'

The interpretation, by consequence, changes from *have something at one's disposal* to *own something*, but despite having *ka*, *ke*, *ki* in the sentence, it would be a far stretch to speak of inalienable possession: Nadya, being marked as a possessor by *ka*, *ke*, *ki*, *owns* a pen, but might lose it or break it. This shows that the distinction made in Hindi/Urdu does not seem to be only between inalienable vs. alienable, but between individual-level possession vs. stage-level possession.

When the convention does not select for inalienable vs. alienable possession, i.e., when the statement is neutral in that respect, the distinction is between ILP and SLP.

4.3 Interim Summary

After re-examining the Hindi/Urdu PCC data and applying the tests on predication level, it is safe to draw the following conclusions. Hindi/Urdu distinguishes not only between inalienable and alienable possession, but is also sensitive to the stage-level and individual-level distinction with respect to possession — *ka*, *ke*, *ki* marks ILP PCCs, while *ke pas* marks SLP PCCs. We have applied standard tests for predication level, and seen that these predictions are borne out by the data. Predication level is part of the lexical entry of the possessive marker that is involved in the construction; the alienable/inalienable dichotomy is not sufficient for explaining the data (see also Section 4.2).

5 A Closer Look at Irish

In the case of Irish, there seem to be multiple phenomena at work, as definiteness seems to play a role in the data. I argue that the facts are hard to explain without assuming an SLP vs. ILP contrast. I provide evidence for the copula *is* expressing ILPs and the copula *bí* expressing SLPs, using the previously established tests. Consequently, I argue that the information about the level of predication must be part of the lexical entries of the copulas.

An important observation in Irish is that the distinction between individual-level and stage-level predication is not always clearcut. As a starting point, consider the intuition expressed in the literature (Stenson, 1981; Doherty, 1996) that the copula *is* expresses ILPs and the copula *bí* expresses SLPs. Now, assume the following dialog:

- (21) a. Tá carr nua amuigh.
 be.Pres.3.S car.M.S new outside
 ‘There is a new car outside.’
- b. Is le Pádraig an carr nua.
 be.Pres with Patrick.M.S Art.Def car.M.S new
 ‘The new car is Patrick’s.’ ~ ‘Patrick owns the new car.’
- or ...
- c. Tá an carr nua ag Pádraig.
 be.Pres.3.S Art.Def car.M.S new at Patrick.M.S
 ‘Patrick has the new car.’ (he may or may not own it)

(21c) is in fact ambiguous between a reading where Patrick actually owns the car, and another reading where Patrick only has it at his disposition for some time, e.g. assuming he borrowed it from someone; see also Stenson (1981, p. 98). Irish PCCs that make use of the copula *is*, however, are never ambiguous in that respect, as they can only express the ‘own’ reading.

5.1 Definiteness

The choice of the copula *is* vs. the copula *bí* in Irish seems, however, to be influenced by definiteness: while the construction *bí ... ag* allows for different kinds of possessee, *is ... le* only allows for definite possessives. If there is an indefinite possessee involved, the construction *bí ... ag* has to be used (Aidan Doyle, p.c.; this is also noted by Stenson (1981, p. 98)). Assume a dialog as in (22).

- (22) a. Tá caisleán agam in Éirinn.
be.Pres.3.S castle.M.S at.1.S in Ireland
'I own a castle in Ireland.'
- b. #Is liom caisleán in Éirinn.
be.Pres with.1.S castle.M.S in Ireland
'A castle is mine in Ireland.' ~ 'I own a castle in Ireland.'
- c. An leatsa an talamh chomh maith?
Part.Int with.2.S.Emph Art.Def ground.M.S as-well
'Is the ground yours as well?' ~ 'Do you own the ground as well?'
- or ...
- d. An bhfuil an talamh agat chomh maith?
Part.Int be.Pres.Int.3.S Art.Def ground.M.S at.2.S as-well
'Do you own the ground as well?'
- e. Is liomsa an talamh chomh maith!
be.Pres with.1.S.Emph Art.Def ground.M.S as-well
'The ground is mine as well!' ~ 'I own the ground as well!'
- or ...
- f. Tá an talamh agam chomh maith!
be.Pres.3.S Art.Def ground.M.S at.1.S as-well
'I own the ground as well!'

We have to use *bí ... ag* in (22a), as the possessee is indefinite. So, it looks like we have the same verb, *own*, in English, but two separate expressions in Irish. However, note further that in the English translations, we could substitute *have* for *own* in (22a) and (22b), but not in (22c) through (22f). So, there seem to be two English verbs *own*: "real" *own*, corresponding to Irish *is ... le*; and a "pseudo" *own* of sorts, corresponding to Irish *bí ... ag*. Importantly, when the PCC *is ... le* is not available, as is the case with indefinite possessives, the PCC *bí ... ag* has to be used. By consequence, the distinction between ILP and SLP cases of possession is blurred in these cases; see the example in (23).

- (23) Tá carr agam.
be.Pres.3.S car.M.S at.1.S
'I have a car. / I own a car.' adapted from Stenson (1981), p. 98

I conclude that the copula *is* only admits ILPs, while the copula *bí* admits both SLPs and ILPs. This is in line with the observation above that *is ... le* corresponds

to “real” *own* in English, while *tá ... ag* corresponds to “pseudo” *own*. The assumption is further supported by the predication level tests introduced above (see Section 5.2). The choice between the two depends on definiteness and on the predication level one wants to express. This is confirmed both by Doherty (1996) for Irish and Ramchand (1996) for closely-related Scottish Gaelic, who also acknowledges the fact that sentences with the copula *bí* may receive habitual interpretations. While Ramchand (1996) contributes the differences to the differing word order, I argue that the differences in the level of predication are lexically defined.

5.2 Applying the Predication Level Tests to Irish PCCs

Temporal Adverbials Irish PCCs with *is ... le* are judged as questionable by native speakers when modified with a temporal adverbial, while the acceptability of sentences with *bí ... ag* is not affected.

(24) a. ??Is le Pádraig an carr nua inniu.
 be.Pres with Patrick.M.S Art.Def car.M.S new today
 ‘Patrick has the new car today.’

b. ??Is le Seán an teach inniu.
 be.Pres with John.M.S Art.Def house.M.S today
 ‘John has the house today.’

(25) a. Tá an carr nua ag Pádraig inniu.
 be.Pres.3.S Art.Def car.M.S new at Patrick.M.S today
 ‘Patrick has the new car today.’

b. Tá an teach ag Seán inniu.
 be.Pres.3.S Art.Def house.M.S new at John.M.S today
 ‘John has the house today.’

The fact that (24a) and (24b) are questionable is expected if we assume that the copula *is* expresses ILPs. The copula *bí* can express SLPs of possession, which is why the examples in (25a) and (25b) are not affected.

Lifetime Effects We get lifetime effects when changing the tense of sentences with the *is ... le* construction; however, there is no lifetime effect when changing the tense of sentences with the *tá ... ag* construction:

(26) Ba le Pádraig an carr nua.
 be.Past with Patrick.M.S Art.Def car.M.S new
 ‘Patrick had the new car.’
 → implies that either Patrick or the car do not exist anymore

(27) Bhí an carr nua ag Pádraig.
 be.Past.3.S Art.Def car.M.S new at Patrick.M.S
 ‘Patrick had the new car.’

→ does not necessarily imply that Patrick or the car do not exist anymore

This observation is confirmed by Doherty (1996), giving the following examples:

- (28) a. Ba dochtúir Seán.
 be.Past doctor.M.S John.M.S
 ‘John was a doctor.’ adapted from Doherty (1996), p. 39
- b. Bhí Seán ina dhochtúir.
 be.Past.3.S John.M.S in-his doctor.M.S
 ‘John was a doctor.’ adapted from Doherty (1996), p. 39

Doherty (1996) mentions that while (28a) is unambiguous in that it only allows for the reading where the subject *Seán* has left the universe of discourse and is probably dead, the second sentence expresses a temporary reading, where the subject may have some other profession. Ramchand (1996, p. 179) gives a similar example for Scottish Gaelic.

5.3 Interim Summary

Irish distinguishes between stage-level and individual-level instances of possession; the copula *is* marks ILP PCCs, while *bí* marks either ILP or SLP PCCs. Standard tests for predication type can be applied, showing that the information on predication type is part of the lexical entry of the copula. The copula *bí* is (optionally) capable of embedding the relation between possessor and possessee within a situation, thereby rendering the possession expression time-and-situation-dependent (‘have something at one’s disposition’ readings). The copula *is*, on the other hand, obligatorily expresses individual-level predicates of possession (‘own something’ readings).

6 Towards a Single Analysis for Both Languages

I assume the theory of Kratzer (1995) and account for the data from Hindi/Urdu and Irish based on the assumption of a situation argument for SLPs. I assume that for both languages, the information about the predication level is part of the lexical items. For Hindi/Urdu, these are the possessive markers *ka*, *ke*, *ki* (ILP) and *ke pas* (SLP); for Irish, the contrast is between the copula *is* (ILP) and the copula *bí* (ILP/SLP). It is these lexical items that supply or do not supply the situation argument. I assume LFG in combination with Glue Semantics (Dalrymple, 2001; Dalrymple et al., 1993).

6.1 The Analysis in Light of the Hindi/Urdu Data

The syntactic part of the analysis employs a PREDLINK analysis, which has been shown to be a desirable analysis of copula constructions (Sulger, 2009; Attia, 2008; Butt et al., 1999). The Hindi/Urdu copula *ho* links the subject to a PREDLINK grammatical function (GF). Mohanan (1994) (see also Section 4.2) has argued convincingly that there are genitive subjects in Hindi/Urdu, headed by case clitics that assign genitive case. She presents evidence for both *ka*, *ke*, *ki* and *ke pas* as case

clitics marking subjects of genitive case; I assume this account. As a consequence, KPs headed by *ka*, *ke*, *ki* and PPs headed by *ke pas* are SUBJ in the f-structures.⁷

The copula merely links possessee and possessor; as a consequence, we have two homonymous copulas, one embedding ILPs, the other embedding SLPs. To construct the semantics, I assume the following mapping: the PREDLINK GF is rewritten as the possessee argument, while the SUBJ GF is rewritten as the possessor argument.

6.1.1 Urdu ILP PCCs

Let's take a simple ILP example such as the following:

- (29) *nadya ka makan hε.*
 Nadya.F.S.Obl Gen.M.S makan.M.S be.Pres.3.S
 'Nadya has/owns a house.'

Since this example is neutral with respect to the inalienable/alienable dichotomy, it is sensitive to the ILP/SLP contrast. By choosing the *ka*, *ke*, *ki* marker, the ILP reading is selected (see Section 4.2). For reasons of space, I omit c-structure rules and f-structure annotation, but give the resulting structures in Figure (1).⁸

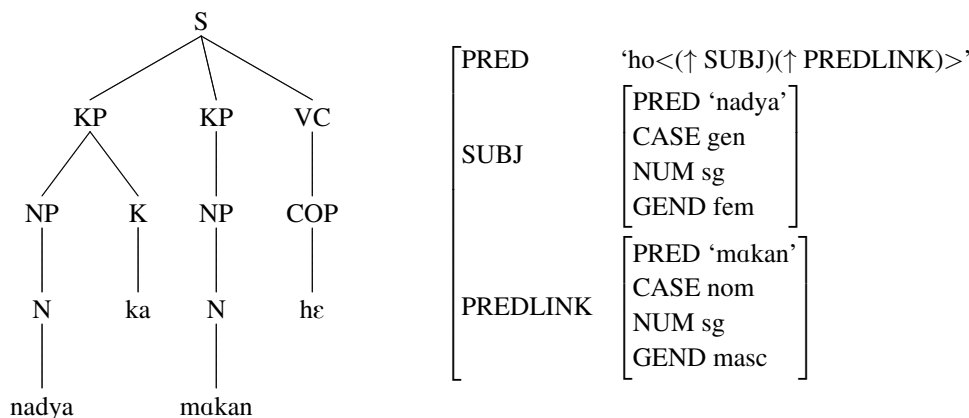


Figure 1: c- and f-structures for (29)

Below, I provide the lexical entries for (29). Notice that the copula *ho* in (30) is ambiguous between a reading not involving any situation argument (the first option in (30)), and a reading that does involve a situation argument (the second option in (30)). Notice further that the genitive case marker *ka* on the subject requires

⁷An alternative to this treatment, hinted at by both Ash Asudeh and Mohanan (1994), would be to assume that the possessor nominal sits in the specifier position of the possessee nominal, so that *nadya ka b^hai* forms a single NP. This would result in the copula being a one-place predicate, selecting only for a subject, and would nicely account for the agreement between the possessor nominal and the possessee nominal. However, initial investigation has shown that it is difficult to argue for the subjecthood of constituents such as *nadya ka b^hai*.

⁸As there are no pressing arguments for assuming a verb phrase in Hindi/Urdu, the clause structure is generally assumed to be a flat one (Mohanan, 1994; Butt, 1995).

the PREDLINK to be masculine singular.⁹ To exclude subjects that are not marked by *ka*, *ke*, *ki* or *ke pas* from receiving the PCC analysis, I assume that the copula furthermore checks for either genitive case or *ke pas* on the subject.

(30) copula:

$$\begin{aligned}
 ho \text{ COP } (\uparrow \text{ PRED}) &= \text{'ho<SUBJ, PREDLINK>} \\
 &\{ \lambda x. \lambda y. \text{have}(x, y) : \\
 &(\uparrow \text{ SUBJ})_{\sigma} \multimap [(\uparrow \text{ PREDLINK})_{\sigma} \multimap \uparrow_{\sigma}] \\
 &(\uparrow \text{ SUBJ CASE}) = \text{c gen} \\
 &| \lambda x. \lambda y. \lambda s. \text{have}(x, y, s) : \\
 &(\uparrow \text{ SUBJ OBJ})_{\sigma} \multimap [(\uparrow \text{ PREDLINK})_{\sigma} \multimap [(\uparrow \text{ SUBJ})_{\sigma} \multimap \uparrow_{\sigma}]] \\
 &(\uparrow \text{ SUBJ PRED FN}) = \text{c ke pas } \}
 \end{aligned}$$

(31) proper noun *nadya* ‘Nadya’:

$$\begin{aligned}
 nadya \text{ N } (\uparrow \text{ PRED}) &= \text{'nadya'} \\
 Nadya &: \uparrow_{\sigma}
 \end{aligned}$$

(32) genitive case marker *ka*:

$$\begin{aligned}
 ka \text{ K } (\uparrow \text{ CASE}) &= \text{gen} \\
 (\uparrow \text{ PREDLINK NUM}) &= \text{c sg} \\
 (\uparrow \text{ PREDLINK GEND}) &= \text{c masc}
 \end{aligned}$$

(33) common noun *makan* ‘house’:

$$\begin{aligned}
 makan \text{ N } (\uparrow \text{ PRED}) &= \text{'makan'} \\
 house &: \uparrow_{\sigma}
 \end{aligned}$$

The meaning constructor in (30) essentially says the following. Either consume the SUBJ resource and the PREDLINK resource to produce a semantic resource for the entire sentence; or consume the SUBJ OBJ resource, the PREDLINK resource and the SUBJ resource to produce a semantic resource for the entire sentence. The first disjunct is needed for ILP instances of PCCs that do not select a situation argument, while the second disjunct constructs SLP instances of PCCs with a situation argument. Assembling the meaning constructors in these entries, this produces the following desired meaning:

(34) $\text{have}(Nadya, \text{house}) : \uparrow_{\sigma}$

Note that to produce the right order in the meaning (semantic subject, then semantic object) the SUBJ GF is consumed first, then the PREDLINK GF; see (30). Since there is nothing in the sentence providing a situation argument, we do not end up with one in the semantic representation. This depicts the fact that we are dealing with an ILP here, predicating the inherent property of Yassin having a big nose independently of some situation.

⁹Hindi/Urdu displays agreement in gender and number between the subject and its predicate complement. In PCCs, the agreement is realized between the genitive case marker *ka*, *ke*, *ki* and the predicate.

6.1.2 Urdu SLP PCCs

A simple example for an Hindi/Urdu SLP PCCs is given below:

- (35) *nadya ke pas qalam he.*
 Nadya.F.S.Obl Gen.Obl near pen.M.S be.Pres.3.S
 ‘Nadya has a pen.’

Note that by convention there is no inalienable possession relation between Nadya and the pen. The contrast therefore has to be one of ILP/SLP, and by using *ke pas*, the SLP reading is chosen.

I provide c- and f-structures for (35) in Figure 2 below. Essentially, the genitive marker *ke pas* is a complex postposition (Butt and King, 2004). It consists of the oblique form of the genitive case marker, *ke*, and the postposition *pas* ‘near’. The postposition *pas* contributes its own lexical semantics; the f-structure pays tribute to this fact in that *ke pas* is analyzed as a semantic preposition, carrying its own subcategorization frame and a PSEM feature (see also Ahmed (2009); but see Raza (2011) for a different take on *ke pas*).

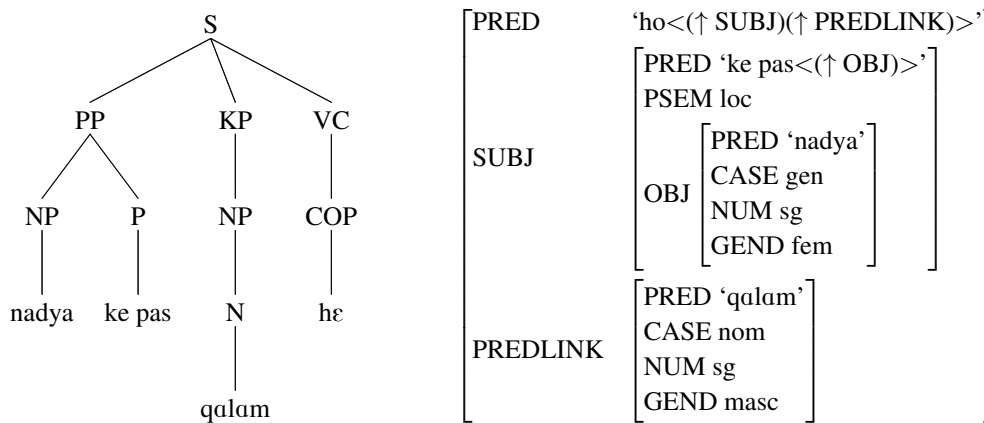


Figure 2: c- and f-structures for (35)

The lexical entries for the copula *ho* and the proper noun *nadya* were already given in (30) and (31), respectively. The remainder of the lexical entries for (35) are given below.

- (36) complex postposition *ke pas*; this lexical entry supplies the situation argument to the semantics:

ke pas P (↑ PRED) = ‘ke pas<OBJ>’
 (↑ PSEM) = loc
 s : ↑_σ

- (37) common noun *qalam* ‘pen’:

qalam N (↑ PRED) = ‘qalam’
 pen : ↑_σ

The complex postposition *ke pas*, being the head of the SUBJ grammatical function, provides a situation argument to the semantics as the SUBJ is consumed by the meaning constructor in (29); the resulting semantic representation is:

(38) $\lambda s.\text{have}(\text{Nadya}, \text{pen}, s) : \uparrow_{\sigma}$

This semantic representation depicts the fact that we are dealing with a SLP here, predicating the coincidental property of Nadya having/holding a pen in the context of some situation.

6.2 The Analysis in Light of the Irish Data

For the syntactic analysis of Irish, a PREDLINK analysis is again assumed (Attia, 2008; Sulger, 2009). The copulas *is* and *bí* link the subject to a PREDLINK GF. The semantics are constructed using the following mapping: the PREDLINK GF is rewritten as the possessor argument, and the SUBJ GF is rewritten as the possessee argument. These rules are not identical to the ones employed for Hindi/Urdu. While the syntactic subject maps to the semantic subject, and the syntactic predicate maps to the semantic object in Hindi/Urdu, in Irish the syntactic subject maps to the semantic object, and the syntactic predicate maps to the semantic subject. This is because all subjecthood tests for Irish point towards the PPs (e.g. *le Pádraig, agam* in (23)/(18f)) being predicates to the copula, and towards the NPs (e.g. *an carr nua, caisleán* in (23)/(18a)) being subjects (Doherty, 1996; Ó Siadhail, 1989).

For space reasons, I cannot provide any f-structures or lexical entries here. In the case of Irish, the difference between ILP PCCs and SLP PCCs is between the two different copulas that are used (Section 5). Crucially, the copula *is* never supplies a situation argument, since it can only select ILP predicates. Conversely, the copula *bí* is ambiguous between supplying and not supplying a situation argument. The two sentences in (39) below may express identical readings, which is why they end up with the semantic representation in (40). Here, none of the copulas supply a situation argument.

- (39) a. Is le Pádraig an carr.
 be.Pres with Patrick.M.S Art.Def car.M.S
 ‘The car is Patrick’s.’
 or ...
- b. Tá an carr ag Pádraig.
 be.Pres.3.S Art.Def car.M.S at Patrick.M.S
 ‘Patrick owns the car.’ (‘The car is Patrick’s.’)

(40) $\text{have}(\text{Patrick}, \text{car}) : \uparrow_{\sigma}$

The sentence in (39b) has, however, another reading, given in (41), where the copula *bí* does supply a situation argument, embedding the sentence in a specific situation, making it dependent on space/time; combining the meaning constructors in the lexical entries produces the meaning in (42).

- (41) Tá an carr ag Pádraig.
 be.Pres.3.S Art.Def car.M.S at Patrick.M.S
 ‘Patrick has the car.’ (‘The car is at Patrick’s disposition.’)
- (42) $\lambda s.\text{have}(\text{Patrick}, \text{car}, s) : \uparrow_{\sigma}$

7 Discussion and Summary

This paper presented a novel analysis for possessive copula constructions (PCC) in Hindi/Urdu and Irish in terms of the well-known stage- vs. individual-level distinction. It shows that both languages are sensitive to the ILP/SLP contrast, that both languages employ a combination of different lexical items to produce the desired predication, and that by employing the established PREDLINK analysis of LFG in combination with a Glue Semantics version of Kratzer’s basic analysis of realizing the distinction between ILP vs. SLP via the absence vs. the presence of a situation argument, a unified analysis can be given.

An issue not addressed in this paper is when exactly convention selects inalienable possession relations in Hindi/Urdu (Section 4.2). I assume this is an issue of lexical semantics and world knowledge. If the speaker knows that there exists an inalienable possession relation between the possessor and the possessee, they will choose *ka*, *ke*, *ki* to indicate this fact; but they will have to infer this fact from both the possessor’s possible inalienable possessee and the possessee’s possible inalienable possessors.

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