

Bar- Ilan University

Pronominal Copulas

CROSS-LINGUISTICALLY

מחקר בין לשוני על קופולות ממקור שמני

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1 Introduction

1.1 Aims of this Study

The literature on copulas distinguishes between verbal and pronominal copulas. The present study focuses on pronominal copulas and it aims at finding cross-linguistic generalizations and accounting for them within the generative framework. One object of this study is to explore the hypothesis that the nominal category from which pronominal copulas are derived is reflected in their syntactic, semantic and morphological behavior and that differences across languages stem from different stages in the process of grammaticalization. Another aim of this study is to investigate the possibility that as nominals, pronominal copulas hold a position that is not in the extended projection of the verb.

Section 1.2 sets the terms and definitions used in this proposal. Section 2 reviews the literature on pronominal copulas and discusses some difficulties they raise. Section 3 introduces the proposal. Section 4 details the methodology.

1.2 Definitions and Terminology

1.2.1 Copulas

A straightforward definition of a copula is not easily found. In many studies copulas are treated as vacuous elements that are present in a clause for the sole purpose of carrying verbal morphology (e.g. Stassen 1997). Other studies use a semantic oriented definition treating elements as copular if the clause in which they are present is non-verbal and carries identity and predicational meanings. Under this line of thought copulas are often taken to be the element that holds (Rothstein 2001) or facilitates (Hengeveld 1992) the relation between subjects and predicates. For reasons that will become clear, in the research outlined in this proposal the latter definition is adopted. The term *copula* refers here to elements that appear between subjects and non-verbal predicates in clauses that express either identity or predication as illustrated in (1) from English and it is assumed that they are required in order for predication relation to hold.

- (1) a. Dan is my brother
b. Dan is a teacher
c. Dan is smart
d. Dan is in Paris

1.2.2 Pronominal Copulas

A Pronominal copula is a copular element that has its source in a pronoun. This is illustrated in (2) from Hebrew and (3) from Saramaccan (an English based creole). The Hebrew copula in (2a) is

isomorphic with the Hebrew 3rd person singular personal pronoun *hu* and the Hebrew copula in (2b) is equivalent to the masculine and neuter singular demonstrative *ze*. The copula *da* in (3a) is identical to a Saramaccan pronoun originally derived from the English demonstrative *that*, and the copula *de* in (3b) was developed from the locative pronoun *there*.

- (2) a. dan hu ax Seli
 dan he brother mine
 'Dan is my brother.'
 b. Yeladim ze simxa
 Children this happiness
 'Children are happiness.'

- (3) a. Mi da Gádu¹
 I S be God
 'I am God.'

(From: McWhorter and Good 2012)

- b. Dí wómi de a wósu
 the man is at house
 'The man is at home.'

(From: McWhorter 1997)

For the purpose of this proposal any pronominal element that can or must be present in predicative or identity clauses in addition to the subject and predicate of that clause is termed *pronominal copula*. This includes elements that are homophonous with existing pronouns in the language, particles that were derived from pronouns that no longer exist in the language, standalone as well as affixed elements. As long as these elements are both of pronominal origin and present in copular environments they are considered a pronominal copula in this proposal.

1.2.3 Grammaticalization

The term *grammaticalization* was coined by Meillet (1912) in reference to a process whereby lexical elements lose their concreteness and become part of a more abstract grammatical paradigm. This process involves a) semantical bleaching in which a precise content of a lexeme is stripped away (Matisoff 1991), b) morphological reduction where features of the original lexeme are lost and c) phonological erosion where lexemes become more dependent on their surrounding material (Heine 1993). Traugott and Hopper (2003) add the synchronic perspective of 'cline' – an imaginary line along which elements are arranged. At the one end of this continuum elements are lexical; at the other

¹ The gloss of the examples throughout this proposal follows the gloss of the studies from which they are cited.

end they are grammatical forms. The exact labels on a line (e.g. prepositions, affixes) are arbitrary and whether a form belongs to the lexical or grammatical area is debatable.

2 Pronominal Copulas in Previous Studies

Previous studies seem to have reached different conclusions regarding the meaning of pronominal copulas, their morphological marking, their distribution and their assumed position in the hierarchy.

2.1 Semantics

Discussions regarding the semantics of copulas in general split between studies that assume that a single copula is used in identity and predicative sentences (e.g. Partee 1986, 1987, Williams 1983) and those who assume two different copulas: one (content-full) copula in identity sentences and another (semantically vacuous) copula in predicational ones (e.g. Zaring 1996). The first approach, often termed *the one-be approach* has its source in the thought of Aristotle, the second, termed *the two-be approach* draws on a distinction first made by Russell.

With respect to the semantics of pronominal copulas, many studies observed that pronominal copulas express identity (e.g. Citko 2008 for *to*, Déprez 2000 for *se*). It has been noted that when more than one copula is present in a language the choice of copula reflects a semantic distinction. For example, it was suggested that Hebrew pronominal copulas may provide support for the *two-be approach*. Heller (1999, 2002) and Greenberg (2008) defended the claim that in Hebrew the ambiguity between predicative and identity readings is distinctively encoded through the two pronominal copulas. *Hu* (as in (2a)) was claimed to encode a predicative reading while *ze* (as in (2b)) was argued to express identity.

In other languages with more than one copula the selection of copulas seems to be different. For example, in Saramaccan locative predication is encoded through the pronominal copula *de* (3b) and identity and non-locative predicative readings are rendered through the use of the pronominal copula *da* (3a) (McWhorter and Good 2012). A similar division of labor is also found in Mandarin Chinese (Hashimoto 1969) as well as few other creoles (McWhorter 1997).

Another example is Panare, where the choice between the two available pronominal copulas renders a distinction of spatial deixis (Gildea 1993). In (4a) the subject is understood as being inside the sphere of perception of the participants through the use of a proximate pronominal copula, in (4b) the subjects is understood as outside the sphere of perception of participants through the use of a distal

pronominal copula. 'Kěj' and 'něj' could probably roughly translate into English proximal and distal demonstratives 'this' and 'that'. This spatial distinction of copulas is found in other Cariban languages such as Kuikuru (Franchetto 2006).

- (4) a. maestro kěj e'ñapa
 teacher COP_{ANIM.PROX} Panare
 'The Panare is_(PROX) a teacher'
- b. maestro něj e'ñapa
 teacher COP_{ANIM.DIST} Panare
 'The Panare is_(DIST) a teacher.'
- (From: Gildea 1993)

As it seems each study provides an accurate account of the semantics of pronominal copulas in a specific language, but these accounts do not seem to cross-linguistically generalize.

2.2 Selection of Lexical Categories

Different languages seem to impose different restrictions on predicates in pronominal copula constructions. For example in Hebrew it was claimed that *hu* is possible with all non-verbal predicates but is only obligatory with DPs (Doron 1983, 1986, Rothstein 2001), or that its obligatoriness is not dependent solely on the category of the predicate but also on whether or not a generic assertions is made (Greenberg 1998). This is illustrated in (5) and (6) below.

- (5) a. dani (hu) nexmad/rofe/be-tel-aviv
 dani Pron nice/doctor/in-tel-aviv²
 'Dani is nice/a doctoe/in the house.'
- b. dani *(hu) mar yosef
 dani Pron mr. yosef
 'Dani is Mr. Yosef.'
- (Based on Rothstein 2001)
- (6) a. orvim *(hem) Sxorim
 ravens_{3ms.pl} Pron_{3ms.pl} Black
 'Ravens are black.'
- b. pariz ??(hi) be-carfat
 Paris_{3fm.sg} Pron_{3fm.sg} in France
 'Paris is in France.'
- (Based on: Greenberg 1998)

The distribution of *ze* was claimed to be even more restricting allowing only nominal predicates (e.g. Sichel 1997). Here too Greenberg (2008) showed that in fact PP and specific AP predicates are also

² Following Doron (1983) pronominal copulas are often glossed 'Pron'. Following Heller (1999) *ze* is glossed as PronZ and *hu* as PronH.

allowed, but the latter depart from the usual agreement pattern of Hebrew adjectives. The typical agreement of pronominal copulas is further discussed in subsection 2.3.

Polish *to* (isomorphic with the 3rd person singular neuter demonstrative) was claimed to be compatible with any lexical category as long as the pre- and post-copular elements are of the same category (Citko 2008). This is illustrated in (7).

- (7) a. Jan *to* [DPmo'j najlepszy przyjaciel] / *[APprzyjacielski] /*[PPw przyjacielskim]
 Jan PRON-COP my best friend / friendly / in a friendly mood
 'Jan is my best friend/ friendly/ in a friendly mood.'
- b. Droz'sze *to* nie zawsze lepsze.
 more-expensive PRON-COP not always better
 'More expensive is not always better.'
- c. W domu *to* w domu.
 at home PRON-COP at home
 'Home is home.'

(All three from: Citko 2008)

In Haitian Creole (a French based creole, henceforth: HC). The copula *se* (possibly derived from the French demonstrative *ce*) was claimed to be obligatory with DPs and NPs and only rarely with APs where the predicate receives a nominal reading (Déprez 2000).

To summarize this subsection, it seems that with respect to the category of predicates, pronominal copulas are restrictive in some languages and permissive in others. While studies provide an accurate description of a language-specific phenomenon, a single principle that can predict which categories will be allowed or obligatory in other languages is missing.

2.3 Agreement

None of the pronominal copulas discussed here shows TAM agreement as do verbal copulas. In some languages the pronominal shows the morphology of a 3rd person masculine or neuter singular pronoun (e.g. Polish, Russian, Saramaccan, HC). There are however, languages in which pronominal copulas agree.

The two pronominal copulas of Hebrew mark nominal features such as gender and number. Example (6) above shows that *hu* agrees with the subject for both gender and number. In (8) *hu* clearly agrees with the masculine subject and in (9) *ze* shows number agreement with the predicate.³

- (8) ha- student Se-Salaxta li hu cara crura

³ This is an irregular agreement pattern in Hebrew where verbs and the pronominal copula *hu* generally agree with subjects.

the student_{MS.SG} that-you-sent me PronH._{MS.SG} pain.in.the.neck._{FM.SG}
 ‘The student you sent me is a pain in the neck’ (Based on Greenberg 2008)

- (9) ha-hitpar’uyot ha-axronot zot ha-siba la-ma’acarim
 the-riots_{FM.PL} the-recent PronZ_{FM.SG} the-reason_{FM.SG} to-the-arrests
 ‘The recent riots are the reason for the arrests.’ (From: Sichel 1997)

Agreement with nominal categories is not rare. In Huasa (a Chadic language) the pronominal copula *ne* is used with masculine and plural nominals while *ce* is used with feminine nominals (Jagger 2001). Number distinction of pronominal elements is found in Margi *naja*(SG)/*nanda*(PL) and Nuer *e*(SG)/*ke*(PL) (Stassen 1997). In Panare pronominal copulas agree with the subject for animacy. *Mën* is used with the inanimate subject in (10), while the two animate copulas *kěj* and *něj* in example (4) are banned.

- (10) e’chipen mën manko
 fruit COP.INAN mango
 ‘Mango is a fruit’ (From: Gildea 1993)

The copulas discussed in these studies seem to show different agreement behavior and there seem to be no single rule that accounts for the data cross-linguistically. The emerging generalization seems to be that the agreement pattern of pronominal copulas diverges from the typical agreement pattern of verbal copulas and is typically nominal. More importantly it seems that agreement of pronominal copulas is possible but not obligatory or essential to their function as copulas.

2.4 Co-occurrence with other Copulas

In some studies it is mentioned that the pronominal copulas can co-occur with verbal copulas in the same clause. For example, Citko (2008) showed that Polish has three different copular constructions: a pronominal copula (*to*) construction, a verbal copula (*być*) construction, or a dual copula construction where both verbal and pronominal copulas occur in the same clause. The example in (11) is equivalent to the first part of (7a) with the exception that a present tense verbal copula was added.

- (11) Jan to jest mo’j najlepszy przyjaciel
 Jan PRON-COP is my best friend
 ‘Jan is my best friend.’ (From: Citko 2008)

According to Citko these dual copula constructions generally pattern with pronominal copula constructions. For example, predicates in the verbal copula construction are marked for instrumental

case and movement out of these predicates is possible, while predicates of both the pronominal and the dual copula constructions are nominative and movement out of which is banned.

Russian *eto* is found in non-verbal clauses juxtaposed to the verbal copula (*byl*) in past and future tenses as in (12). Like in Polish, predicates are marked for nominative case in the presence of *eto* and for instrumental case in its absence (Markman 2008). While *eto* is not analyzed by Markman as a copular element, it portrays a strikingly similar picture to that of Polish *to* and being homophonous with the 3rd person singular neuter demonstrative and present in identity and predicational clauses it falls under the definition of pronominal copulas in section 1.

- (12) Misha eto (byl) / Ø nash doctor
 Misha this (was) is our doctor-nom
 `Misha was / is our doctor.' (From: Markman 2008)

The Hebrew verbal copula (*haya*) is available only in past and future tenses. Most studies assumed that this verbal copula replaces the pronominal copula in non-present clauses. However, in Tenne (2015) I discussed the possibility that the pronominal copula *ze* and the verbal copula *haya* can co-occur when past or future tense adverbials are added since *ze* cannot carry TAM morphology. This probably happens when the subject lacks the agreement features required for external agreement and the verbal copula cannot agree with it as discussed in Danon (2012). Example (13a) shows a present tense pronominal copula construction; example (13b) shows that when a past tense lexeme is added to (13a), a dual copula construction is probably preferred over a single copula construction where the verbal *haya* replaces the pronominal copula *ze*.

- (13) a. linso'a le-amerika ze/zot harpatka'a
 to-travel to-America PronZ_{MS/FM.SG.} adventure
 `Traveling to America is an adventure.'
- b. Pa'am linso'a le-amerika ?zot hayta / ??haya harpatka'a
 Once to-travel to-America PronZ_{FM.SG.} was_{FM.SG./} was_{MS.SG.} adventure
 `In the past traveling to America was an adventure.'
- (Both from Tenne 2015 based on Hazout 1994)

While verbal and pronominal copulas are acknowledged in a single clause in the studies reviewed here, the exact contribution each of them makes and the exact position assumed in the hierarchy varies from one study to another and there seems to be no unified account for the phenomenon of dual copula constructions. A preliminary generalization that emerges from the small sample discussed here

is that it may be that when a language has both a pronominal and a verbal copula, the two copulas can co-occur in different degrees of acceptance and mainly in the non-present tenses. The pronominal copulas that allow this co-occurrence in the three languages discussed here are all of demonstrative origin and in all three cases they agree with the predicate.^{4,5}

2.5 Structural Position

The exact position of copulas in general is rather controversial. Some studies assumed that copulas raise to INFL/T from V (e.g. Heggie 1988, Heycock 1992, Pereltsvaig 2001) or from Pred (e.g. Adger and Ramchand 2003), but there are also views that posit that the copula is in V (e.g. Rothstein 2001). The specific substantiation for each analysis is beyond the scope of this proposal, but the overall picture that surfaces is that in some respects verbal copulas behave like verbs and in other respects they differ from them and so the exact position of copulas is debatable.

In much the same way, some authors assume that pronominal copulas are in INFL/T, others posit that they occupy a lower position such as Pred or AgrO and there are also analyses that suggest that they hold a higher position such as AgrS. The details of these analyses and the difficulties each of them raises is discussed below.

Doron (1983) showed that in Hebrew the present tense copula *hu* is not a verb like the copular element *haya* which is used in past and future constructions. To show the distinction between the verbal and pronominal copulas she used a battery of tests such as showing that *hu* precedes negation and adverbials while the verbal copula *haya* follows them. She further showed that *hu* is not a subject or a left dislocated element and concluded that it is a bundle of agreement features that realizes in INFL/T. Danon (2015) showed that *ze* patterns with *hu* in preceding negation and adverbials and assumed that it holds the same structural position.

Citko (2008) reached a similar conclusion regarding the position of Polish *to*. In order to accommodate the two different copulas in the same clause Citko adopted Adger and Ramchand's (2003) analysis and posited that *to* is based in INFL/T and the verbal copula which follows it occupies the head of Pred. To explain the fact that tense is marked on the element in Pred rather than the element in T she suggested that *to* is an expletive copula to which the verbal copula adjoins at LF.

⁴ However, Adger and Ramchand (2003) mention that in Scottish Gaelic pronominal elements show residual number agreement with subjects and they cite Mcloskey (p.c.) for a similar observation on Irish. The Celtic data will be included in later stages of this research.

⁵ Languages that lack verbal copulas in their inventory, such as HC and Saramaccan are discussed in sections 2.5 and 3.

This was assumed to be a covert movement in order to resolve the conflict between this structure and the word order of the two copulas.

Sichel (1997) assumed that Hebrew *hu* occupies a position higher than INFL/T while *ze* occupies a position lower than INFL/T and suggested the heads of AgrS and AgrO respectively. This was supported mainly by the fact that *hu* agrees with subjects and *ze* agrees with predicates. Positing that *hu* holds a position higher than INFL/T can account for the fact that adverbials and negation in Hebrew follow *hu* and precede the verbal copula as observed by Doron (1983). Since *ze* and *hu* demonstrate the same word order with respect to negation and adverbials (Danon 2015), positing that *ze* holds a position lower than INFL/T is only possible if verbal copulas are assumed in a position lower than AgrO.

A position which is lower than INFL/T was also discussed in Déprez (2000) who analyzed HC *se* as occupying Pred. Déprez does not explain where in the structure TAM features are assumed but one of her examples (in (14)) reveals that in HC tense features are realized as an unbound morpheme after the pronominal copula, and hence should be expected somewhere below Pred.

(14) Jan se te zanmi mwen
John was my friend (From Déprez 2012)

Literally this sentence reads: *Jan is [past] my friend*. Similar word order is found in Saramaccan.

Several problems arise. First, while, the studies reviewed here all treat pronominal copulas as functional, the exact head these elements occupy is different from one study to another. Conflicting analyses could be merely different perspectives of different authors, but the remarkable resemblance pronominal copulas demonstrate across languages begs a unified account. Further, some of these studies seem to come at the price of assuming elements that deviate from the typical behavior of the position in which they are assumed.

For example, any analysis that assumes that pronominal copulas hold a position lower than INFL/T should account for the fact that in terms of word order, verbal copulas seem to occupy a lower position than pronominal copulas. This was illustrated for Polish, Russian and Hebrew in section 2.4 and it also follows from Doron's (1983) observation that in Hebrew pronominal copulas precede and verbal copulas follow the negative particle. In Polish where the two copulas regularly co-occur, indeed negation intervenes between the pronominal copula and the verbal copula as is illustrated in (15).

- (15) Droz' size to nie jest zawsze lepsze.
more-expensive PRON-COP not is always better
'More expensive is not always better.'

(From: Citko 2008)

On the other hand, analyses that assume that pronominal copulas occupy INFL/T should explain why when a verbal copula co-occurs, it is nominal and not verbal features that realize in INFL/T and at the same time why verbal features realize lower than INFL/T in positions that do not normally mark verbal features.

A possible solution could come from adopting Rothstein's (2001) analysis that posits that verbal copulas are in V. The morphology exhibited by verbal copulas is typical of this head and yet this analysis allows the word order described above. However, as it seems, adopting this treatment of copulas runs into difficulties when applied to the data of HC and Saramaccan.

Saramaccan and HC lack a verbal copula in their language inventory. As was illustrated in (14), tense is rendered through an unbound morpheme that follows the pronominal copula. Since the construction in (14) lacks a verbal copula to which tense feature could cliticize, assuming that these features realize in V is somewhat odd. Moreover, at least in HC, verbs do not inflect and TAM features realize as unbound particles before the verb even in simple (non-copular) clauses (Lefebvre 1996). A reasonable assumption would be that in these cases the verb is in V while tense inflection is in INFL/T. If tense inflection is in INFL/T the pronominal copula precedes INFL/T.

Alternatively Sichel's (1997) assumption that Hebrew *hu* sits in AgrS above INFL/T could be considered for pronominal copulas in general. This analysis allows INFL/T to host the tense particles of HC and Saramaccan, the verbal copulas in dual copula constructions in Polish, Russian and Hebrew, it can account for the word order with respect to negation and it does not assume that verbal features realize in a typically non-verbal position and that nominal features realize in a typically verbal position. However, as discussed in 2.4 above, a cross-linguistic perspective suggests that agreement is not an essential characteristic of pronominal copulas and so while a higher position may be plausible, a different head should be considered. I discuss this further in section 3.2.

3 The Proposal

This proposal has two parts. In subsection 3.1 I pursue the hypothesis that the semantic, syntactic and morphological behavior of pronominal copulas is a relic of the original nominal category from which

they developed. In 3.2 I suggest that as nominals, pronominal copulas should be assumed outside the extended verbal projection and I outline a preliminary proposal for their structural position.

3.1 The Properties of Pronominal Copulas from a Diachronic Perspective

Subsection 3.1.1-3.1.3 investigate the idea that differences in the behavior of pronominal copulas across languages stem from different stages in the process of grammaticalization. In the early stages of this process pronominal copulas show the typical behavior of the original pronoun and so nominal agreement, distributional restrictions and specific readings are found. As the process continues the meaning of the original pronoun bleaches, features are reduced and further lexical categories are allowed in predicate position. Subsection 3.1.4 concludes that the nominal nature of pronominal copulas is maintained in the different stages of grammaticalization and points out that this process is also present with verbal copulas.

3.1.1. Semantics

In the studies cited in section 2 identity reading was associated with specific pronominal copulas such as Hebrew *ze*, Polish *to* and HC *se*. Since all these copulas derive from demonstratives I hypothesize that this reading is due to the identifying nature of demonstratives and that this reading is carried out to the copular function. This identifying reading is more specific in the case of Saramaccan *de* and the two copulas of Panare. *De* was derived from the locative *there* and the locative meaning is carried out to its copular role.⁶ The Panare copulas were derived from proximate and distal demonstratives and the spatial information of these demonstratives is rendered in their copular use. The one pronominal element in this small sample that is not of a demonstrative origin is Hebrew *hu* which developed from a personal pronoun. Indeed this copula was argued to carry predicative (rather than identity) reading but it is not clear to me at this stage what in its personal pronoun origin can explain this interpretation.

3.1.2 Predicate Selection

The compatibility of specific copulas with specific lexical categories is highly coordinated with the interpretation discussed in 3.1.1. Saramaccan *de* (originally *there*) could probably represent an early stage of grammaticalization since as mentioned, it is still found only with locative predicates. HC *se* and Hebrew *ze* (both of demonstrative origin) could represent an intermediate stage. Both allow mainly nominal predicates like demonstratives, but in both languages other categories are sometimes

⁶ This kind of analysis could raise the suspicion that 'de' is not a copula but rather a preposition, but it is clear in example (3) that there is another preposition in the clause.

found (specific APs and PPs). Polish *to* probably represents an advanced stage in the process, since as mentioned above this copula is compatible with predicates of all lexical categories.

3.1.3 Agreement

Pronominal copulas maintain their nominal nature not only in their interpretation and category selection of predicates, but also in their morphological makeup. These elements may play a role that is played by verbal elements in other languages but as nominals they do not inflect for TAM, but rather maintain nominal features.

Again differences between languages can be explained by assuming that each language reflects a different stage in the pathway of grammaticalization. At the beginning of such a process copulas are more likely to agree (this may be the case of Huasa); at the end of this process features are reduced and the copula become fossilized as for example with Russian *eto* and Polish *to*. The loss of features of Polish *to* integrates nicely with the fact that this copula does not show any restriction on predicates. An interesting example in this respect is Hebrew *ze* which can agree for gender and number, but it is already clear that the plural form of the demonstrative, *ele*, is disfavored as a copula and in most cases the masculine/neuter singular *ze* is used in its place (example (16a)). The agreeing feminine singular demonstrative *zot* is still used as a copula but it can also interchange with the masculine/neuter singular *ze* (example (16b)). These facts could suggest that the copula is slowly reduced to the form of *ze* and will eventually become frozen like Polish *to* and Russian *eto*. These facts could be correlated with the transitory status of this copula as discussed in 3.1.2. where specific APs and PPs are also allowed. Indeed in Hebrew APs and PPs are only compatible with the neuter *ze* and not with agreeing *zot* and *ele*.

- (16) a. mas haxnasa ze/?ele carot Sel anaSim im haxnasa
 [tax income]_{MS.SG.} ze_{MS.SG./PL.} problems_{FM.PL.} of people with income
 ‘An income tax is (only) a problem for people with income.’ (From: Tenne 2015)
- b. ha-haca’ot šelo ze/zot(t) bdixa.
 the-proposals_{FM.PL.} his ze_{MS.SG./FM.SG.} joke_{FM.SG.}
 ‘His proposals are a joke.’ (From: Danon 2012)

3.1.4 Intermediate Summary

To summarize this part of the proposal I suggest that pronominal copulas show semantic, syntactic and morphological behavior that is typical of nominals. Differences between languages are due to the specific nominals from which they develop and the stage in the pathway of grammaticalization.

It is possible that in this respect pronominal copulas are not different than verbal copulas. Verbal copulas are copulas that show verbal agreement and pronominal copulas are copulas that show nominal agreement. Like pronominal copulas, verbal copulas can probably demonstrate feature loss and phonological reduction.⁷ They can also maintain the meaning of the original category from which they develop and demonstrate restrictions on distribution. For example, Hengeveld (1992) points out that many languages use a distinct verbal copula of a positional verb origin such as *stand*, *sit* or *live* in localizing predication only. One such example is the Spanish copula *estar* which was derived from the Latin *stare*, 'to stand' and was first present only with locative predicates. The use of this copula was later extended into adjectival predicates, but it is still banned with nominal predicates. The neighboring language Portuguese already allows *estar* with nominals as well. The distinction between this copula and the other Spanish and Portuguese copula *ser* was developed into a stage-individual level distinction.

In the following subsections I investigate the structural implication of the hypothesis that pronominal copulas are both copulas and nominals and as such should not be viewed as part of the extended verbal projection.

3.2 The Structural Position of Pronominal Copulas

The discussion in 2.5 was concluded with the observation that word order suggests that pronominal copulas sit higher in the hierarchy than verbal copulas and that it seems that INFL/T is already occupied by tense features. Below I first review the different strategies languages use to express tense in pronominal copular constructions and then discuss the advantages in hypothesizing that pronominal copulas hold a position higher than tense inflection and outside the extended verbal projection.

3.2.1 Tense Expression in Pronominal Copula Constructions

Two strategies for expressing tense in pronominal copular constructions have been mentioned in section 2. In Polish, Russian and to some extent Hebrew, when tense is rendered in pronominal copular clauses, a verbal copula either replaces the pronominal copula or follows it (dual copula constructions). In HC and Saramaccan an unbound tense morpheme intervenes between the

⁷ One such example could be the sentence in (i) where the copula does not agree for number and seems to become more dependent on surrounding material:

i. There's dishes in the sink (cf. 'There are dishes in the sink')

Loss of features is probably attested with functional categories more generally as illustrated by the quote from the Beatles below:

ii. She don't care

The assumption that verbal copulas lose verbal features requires further investigation.

pronominal copula and the predicate in copular constructions. Since in these languages tense particles precede verbs in simple (non-copular) clauses, an assumption that the tense inflection is in INFL/T while the verb is in V seems rather plausible.

A third strategy for expressing tense in pronominal copula constructions is found in Panare. According to Gildea (1993), Panare reference system divides the world into entities inside and outside the sphere of perception (glossed VISIB/INVIS). When the subject nominal and the copula agree for spatial deixis (i.e. the subject is marked visible and the copula is proximate or the subject is marked invisible and the copula is distal) the sentence translates into the present tense. When the subject and the copula express different deictic values, the reading is non-present. This is illustrated in (17).

- (17) a. Maestro kěj měn
 teacher ANIM:PROX ANIM:VISIB
 'This guy is a teacher.'
- b. maestro něj měj
 teacher ANIM:DIST ANIM:VISIB
 'This guy was a teacher.'

(From: Gildea 1993)

3.2.2. The Role and Position of Pronominal Copulas

The state of affairs in HC and Saramaccan could suggest that what seems like a dual copula construction in Polish, Russian and Hebrew is actually a pronominal copula construction with the tense information encoded through a light verbal element. The fact that pronominal copulas are sometimes obligatory but do not always agree suggests that like verbal copulas they too are probably not merely the realization of agreement features and that like verbal copulas they too may be responsible for holding the relation between subjects and predicates. In languages in which tense cannot realize as an unbound morpheme, it could be that when tense is semantically forced into a construction, a verbal copula either replaces the pronominal copula and holds the relation between subject and predicate or added to the pronominal copula, in which case predication relation is held by the pronominal copula and the verbal copula is responsible for carrying the tense information.

Such an analysis is not free of complications. For example in Hebrew the co-occurrence of the two copulas is highly restricted. Out of the two Hebrew pronominal copulas only *ze* can occur with the verbal copula and probably only when the subject is underspecified and the verbal copula cannot form an agreement relation with it. If the verbal element can serve as a tense carrier in *ze* clauses it is not explained why it cannot play the same role with *hu*. However, the observation that negation precedes

verbal copulas and follows pronominal copulas (Doron 1983) suggests that the two copulas hold two distinct positions and the rarity of the co-occurrence is not the result of a structural restriction.

The suggestion that these verbal elements do not play the role of a copula in these so called dual copula constructions infers a functional and structural distinction between copulas and tense. This in turn suggests that it may be coincidental that in many languages copulas and tense realize as a single (verbal) element and it raises the question whether tense can also realize on a non-verbal copular element. This seems to be the case of languages like Panare as illustrated in (17).

The research detailed in this proposal aims at testing the hypothesis that pronominal copulas function like verbal copulas in the sense that they are required in order for predication relation to hold, but structurally they differ from them in holding a higher position outside the extended verbal projection. Since it has been extensively demonstrated here that agreement is neither obligatory nor essential for pronominal copulas I aim to depart from Sichel's (1997) analysis according to which Hebrew *hu* occupies AgrS above INFL/T and suggest that the nature and label of this position is different. Such an analysis may be costly in assuming further structure, but at the same time it can account for a) the word order of the so called dual copula construction, b) the fact that negation follows pronominal copulas and precedes verbal copulas and c) the fact that in some languages tense realizes as an unbound morpheme after the pronominal copula and before verbs and the fact that agreement is not an essential property of pronominal copulas. This treatment of pronominal copulas refrains from assuming that nominal features realize in INFL/T and verbal features realize in heads other than V or INFL/T; it does not presume that copulas undergo overt or covert movements and it captures the difference between verbal and non-verbal copulas.

If indeed pronominal copulas are nominal projections, a reasonable predication would be that the same way that the distinction between verbal copulas and verbs is not always clear, the distinction between subject pronouns and pronominal copulas will be debatable as well.

4 Outline and Methodology

This research will use standard generative linguistics methods. The hypotheses under investigation will guide the pursuit of data from further languages, grammaticality judgments will be used and the data collected will form the basis for developing a theoretical analysis.

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