Hebrew nonverbal sentences wear reconstruction on their sleeve[*]

Omri Doron
Massachusetts Institute of Technology

Abstract In this paper, I discuss a particle in Hebrew which has been termed *Pron* by Doron (1983). While its surface form is that of a pronoun, its distribution resembles that of a copula – it appears between the subject and the predicate in nonverbal present-tensed sentences. However, its distribution is limited in unexpected ways for a copula, which gained it some attention in the literature. Contra the standard line of analysis, I argue that Pron is in fact a resumptive pronoun left by the subject as it raises to a higher position. I show that this analysis ties together many of Pron's *prima facie*-surprising properties.

Keywords: reconstruction, nonverbal, resumptive pronouns, Hebrew, genericity

1   Introduction

Hebrew nonverbal sentences in the present tense sometimes contain what looks like a pronoun between the subject and the predicate.[1] This is demonstrated in (1-2) below. Following Doron (1983), I will refer to this particle as *Pron*. Note that Pron is optional at least in the cases presented in (1-2), i.e. with a definite subject and individual-level predicate. This picture will get more complicated as I introduce some of Pron's properties in the following sections.

(1) a.   dana (hi)   gvoha
          Dana (Pron.3FSG) tall
          "Dana is tall."
     b.   ha-studentim (hem)   χaχamim
          the-students (Pron.3MPL) smart

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1 For the purposes of this discussion, I will focus on NPs and APs in predicate position. The case of PPs is more complicated. While they generally pattern in a similar way to NPs and APs, they diverge when it comes to the constructions I examine in section 3, in which Pron is obligatory with NPs and APs. Sentences with PP predicates seem to be more tolerant to the absence of Pron. While this phenomenon calls for a deeper discussion, it is beyond the scope of this paper.

"The students are smart."

(2)   a.   dana (hi)   meʃoreret
           Dana (Pron.3FSG) poet
           "Dana is a poet."

       b.   ha-studentim (hem)   balʃanim
           the-students (Pron.3MPL) linguists
           "The students are linguists."

It is important to note that Pron's distribution is limited to nonverbal present-tensed sentences: it is not permitted in verbal sentences, as shown in (3), nor in past- or future- tensed sentences, as shown in (4-5).[2] The discussion in this paper and the phenomena described in it therefore do not apply to those kinds of sentences. Following Greenberg (1998, 2002), I term nonverbal present-tensed sentences that include Pron as *+Pron*, and nonverbal present-tensed sentences that do not include it as *-Pron.*

(3)   dana (*hi)   oχelet
      Dana (*Pron.3FSG) eat
      "Dana is eating"

(4)   dana (*hi)   hayta   gvoha
      Dana (*Pron.3FSG) be.3FSG.PST tall
      "Dana was tall."

(5)   dana (*hi)   tihiya   gvoha
      Dana (*Pron.3FSG) be.3FSG.FUT tall
      "Dana will be tall."

Doron (1983) analyzes Pron as a clitic – the realization of agreement features in I^0 in the lack of a verbal stem to attach to. While +Pron sentences are therefore full IPs according to Doron, she argues that -Pron sentences are matrix small clauses. Rapoport (1987), Rothstein (1995) and Shlonsky (2000), among others, follow Doron's analysis in claiming that Pron resides in I^0, and that its absence marks a leaner clausal structure.

While that analysis has been influential, and indeed explains much of the data, it does not account for Pron's full range of distribution patterns and interpretative effects. In this paper, I propose a novel analysis, that treats Pron as the result of movement of the subject to a higher position. In this view, the interpretative effects

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2 An alternative way to describe the facts of past and future nonverbal sentences is that they have a different kind of copula, which shows regular inflection patterns and does not have the form of a pronoun. It is glossed as *be* in (4) and (5) above.

associated with Pron may be explained as stemming from the unavailability of reconstruction of the subject back to its base position. I will argue that this points at a possible analysis of Pron as a resumptive pronoun.

This paper is structured as follows: In section 2, I present some generalizations regarding the distribution patterns and interpretative effects of Pron. I propose a novel analysis and argue that it is suitable to account for those generalizations. In section 3, I present two constructions in which Pron is obligatory, and show that its obligatoriness follows from my analysis. In section 4, I examine the interpretative effects of Pron involving genericity, observed by Greenberg (1998, 2002), and the ways in which they could be made sense of under my approach. I conclude in section 5, by presenting some remaining questions for further research.

2 Hebrew's "pronominal copula"

2.1 Reconstruction effects

One property of Pron that to my knowledge has not been noticed in the literature so far is that subjects in +Pron sentences seem to be banned from reconstructing to a lower position. I apply two standard tests for reconstruction to show that this is indeed the case. The first involves the scope of the subject relative to a raising predicate.

May (1977) has noticed that sentences like (6) below are ambiguous between two readings, given in (7). This ambiguity has been analyzed as the result of optional reconstruction of the subject *someone from New York* to a position below the modal *likely*, which is assumed to be its base position.

(6)   Someone from New York is likely to win the lottery.   (Fox 1999)

(7)   a. $\exists$ **> likely:** There is someone, who happens to be from NY, who has bought more than half the available tickets and it is therefore likely that this person will win the lottery.

        b.   **likely > $\exists$:** More than half the available tickets were purchased in NY and thus it is likely that the winner will be someone (whoever it is) from there.

Applying this test to the case of Hebrew nonverbal sentences yields a surprising result for Doron's (1983) analysis – while the -Pron sentence patterns like the English (6), the +Pron sentence only allows for a wide-scope reading of the indefinite. This is demonstrated in (8) below. I take this to indicate that the presence of Pron prevents the indefinite in subject position from reconstructing below the modal *likely*.

(8)   Context: A crime was committed, and two detectives are investigating a list

of suspects. The suspects all deny being involved in the crime. One detective says to the other:

    a.   eχad ha-χaʃudim kanire ʃakran
         one   the-suspects likely liar
         "One of the suspects is likely a liar" (∃ > likely, likely > ∃)

    b.   eχad ha-χaʃudim hu   kanire ʃakran
         one   the-suspects Pron.3MSG likely liar
         "One of the suspects is likely a liar" (∃ > likely, ??likely > ∃)

(9)   a.   ∃ **> likely**: One of the suspects seems unreliable and has given an inconsistent testimony.

        b.   **likely >** ∃: All suspects seem pretty reliable, but the detectives are sure that they are the only possible perpetrators.

Another phenomenon that has been taken to be the result of reconstruction is the presence of inverse-scope reading in sentences with two quantifiers. This is based on Johnson and Tomioka's (1997) analysis of sentences like (10) below, which are known to be ambiguous between a surface-scope reading (11a) and an inverse-scope reading (11b). In their analysis, the object quantifier QR's to a position lower than spec,TP, the surface position of the subject quantifier. The inverse-scope reading corresponds to an LF in which the subject reconstructs to a position lower than the QR position of the object quantifier. For that reason, the availability of the inverse-scope reading can serve as a diagnostic for whether the subject can reconstruct to that low position.

(10)   Some boy likes every girl.

(11)   a.   ∃ > ∀: There is a boy such that he likes every girl.
        b.   ∀ > ∃: Every girl is such that at least one boy likes her.

Running this diagnostic on Hebrew nonverbal sentences yields the same result as the raising predicate diagnostic – Pron blocks the availability of the inverse-scope reading. This is shown in (12): The -Pron sentence in (12a) has both surface- and inverse-scope readings, while the +Pron sentence in (12b) has only the surface-scope reading. Again, the pattern we observe is that Pron does not allow for reconstruction of the subject below a certain position.

(12)   a.   eyze yalda ba-kita ʃeli xavera ʃel kol   yalda ba-kita ʃelxa
         some girl   in-class mine friend of every girl   in-class yours
         "Some girl in my class is friends with every girl in your class." (∃ > ∀, ∀ > ∃)

   b.   eyze yalda ba-kita ʃeli hi   xavera ʃel kol   yalda ba-kita
            some boy   in-class mine Pron.3FSG friend of every boy   in-class
            ʃelxa
            yours
            "Some girl in my class is friends with every girl in your class." ($\exists > \forall$, ??$\forall > \exists$)

(13)   a. $\exists > \forall$: There's a girl in my class who is friends with all the girls in your class.

        b. $\forall > \exists$: For any girl in your class there's a girl in my class who is friends with her.

The two reconstruction tests I use here have a similar form: Some scope-taking element is positioned between the base position of the subject and its surface position, allowing us a way to detect the relative position of the subject at LF with respect to that element. An obvious question at this point is – what is the position of Pron relative to the other elements in those sentences? In (8), Pron linearly precedes the raising predicate, which may be taken as an indication that it is located higher in the structure. As Doron (1983) noticed, this seems to be the general case: Pron obligatorily precedes negation and raising predicates, as shown in (14-15). I take these data to show that Pron is higher than the raising predicate in examples like (8) and the QR position of the object quantifier in examples like (12).

(14)   a.   dana hi   lo   gvoha
            dana Pron.3FSG NEG tall

        b.   *dana lo   hi   gvoha
            *dana NEG Pron.3FSG tall
            Intended: "Dana is not tall"

(15)   a.   dana hi   kanire   gvoha
            dana Pron.3FSG probably tall

       b. ??dana   kanire   hi   gvoha
           ??dana probably Pron.3FSG tall
           Intended: "Dana is probably tall"

We can therefore assume the schema in (16) for the structure of examples like (8) and (12): given a subject A and another scope-taking element B, A is base-generated below B's final position, but undergoes movement to take scope over B. The position of Pron is always above B, but below the final position of A. This is presented in (16). My observation here is that A can only reconstruct to its base position if the sentence does not contain an (overt) Pron.

(16)   Structure of a nonverbal sentence with two scope-taking elements A and B:
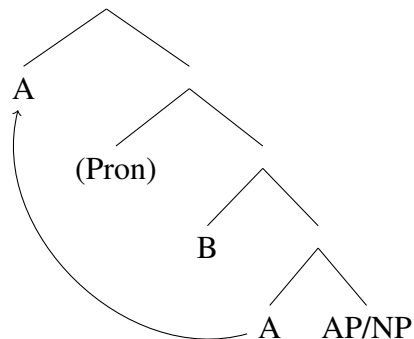
It is important to stress that, at least on the face of it, Doron's (1983) account of Pron does not provide an explanation for the observed interaction between Pron and reconstruction. Specifically, if Pron is the realization in nonverbal sentences of the same agreement features that would otherwise attach to the verb, it is unclear why we do not observe the same pattern in verbal sentences. To illustrate, consider the minimal verbal counterpart of (8a) in (17). The only difference between the examples is that in (17), the predicate is the verb "lie" instead of the adjective "liar". If the existence of the agreement features expressed by Pron in (8a) is responsible for blocking the possibility of the subject's reconstruction, one might expect the agreement on the verb in (17) to have a similar effect. The fact, however, is that like its English translation, both scopal configurations between the subject and the modal are available in (17).

(17)   eχad ha-χaʃudim kanire   ʃiker
        one   the-suspects probably lied.3MSG
        "One of the suspects probably lied" (∃ > probably, probably > ∃)

2.2   Pron as a resumptive pronoun

I would like to point at a parallelism between the patterns described above and another phenomenon in Hebrew that involves the blocking of reconstruction by an element that looks like a pronoun. That is the case of resumptive pronoun in the direct object position of Hebrew relative clauses. While in languages like English, resumptive pronouns are only possible when a moved element cannot leave a trace (e.g. movement out of an island), it has long been noticed that certain constructions in Hebrew allow for both a resumptive pronoun and a trace to be left in the position of the moved element. A notable example, given in (18), is the optionality of a resumptive pronoun in direct object-extracted relative clauses.

While in relative clauses like (18) the choice between a resumptive pronoun and a trace does not seem to have any detectable interpretative effects, Doron (1982) noticed that it does influence the meaning in some cases. That is when the relative clause contains a scope-taking element, like the modal verb "search" in (19) below. As Doron notes, while the -resumptive version in (19a) is compatible with both de re and de dicto readings, the +resumptive version in (19) is only compatible with the de re reading, i.e. the reading in which the extracted NP "woman" takes scope above "search". Doron analyzes the unavailability of the de dicto reading with a resumptive pronoun as stemming from the blocking of reconstruction of the moved object. Sichel (2014) runs further diagnostics, based on binding and idiomatic meaning, and arrives at the same conclusion – the resumptive pronoun in sentences like (19) does not allow for reconstruction of the object back to its base position.

(18)   ha- yeled ʃe-   dana raata   (oto)
         the- boy   COMP- Dana saw.3FSG (3MSG.ACC)
         "the boy that Dana saw"

(19)   a.   dani imca   et   ha- iʃa   ʃe-   hu meχapes
             Dani will.find ACC the- woman that- he searches
             "Dani will find the woman he is looking for" *(de re, de dicto)*
      b.   dani imca   et   ha- iʃa   ʃe-   hu meχapes ota
             Dani will.find ACC the- woman that- he searches 3FSG.ACC
             "Dani will find the woman he is looking for" *(de re, *de dicto)* (Doron 1982)

(20)   a.   **De re:** There is a woman that Dani is looking for, and he will find her.
   b.   **De dicto:** Dani is generally looking for a woman, and he will find one.

The reason for the unavailability of reconstruction with resumptive pronouns is somewhat unclear, and I have little to contribute for deciphering this mystery. However, adopting Doron's (1982) and Sichel's (2014) (a.o.) assumption that at least in some cases, resumptive pronouns block reconstruction, I would like to propose that Pron is another case of this general phenomenon. In other words, contra to Doron 1983, Pron is not a clitic but a resumptive pronoun left by the subject of nonverbal sentences on its way up the clausal structure.

My proposal is based on the assumption that in +Pron sentences, the subject can only reach its surface position in two steps of successive-cyclic movement. It first raises to an intermediate position between its base position and its surface position, and only then raises to its final landing site. To refrain from making unnecessary assumptions about the positions of the subject in the derivation of such sentences, let us term its base position XP, its intermediate position YP, and its final position ZP.

I further assume that the second step – the movement from YP to ZP – obligatorily

results in leaving a resumptive pronoun in its position in YP, a stipulation I will leave unexplained for now. In this analysis, a -Pron sentence is a sentence in which the subject only undergoes the first step of movement, and stops in YP. The movement out of YP is therefore generally optional, which corresponds to the optionality of Pron, but as we will see, some constructions make it obligatory. The hypothesized structures of +Pron and -Pron sentences are given in (21) and (22) below.

(21)   Structure of a +Pron sentence:
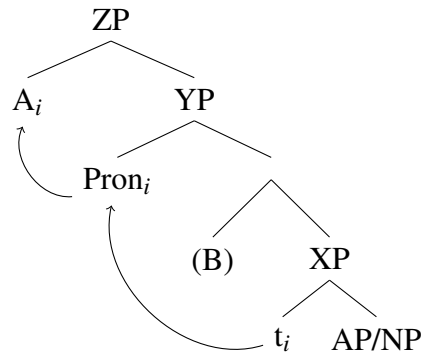
(22)   Structure of a -Pron sentence:
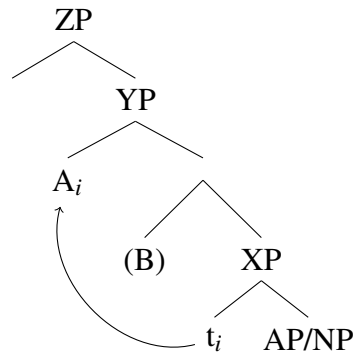
In the +Pron sentence in (21), the subject cannot reconstruct to YP because of the resumptive pronoun, and is thus blocked from reconstructing to XP. The result is the subject obligatorily taking scope over any other scope-taking element in the position of B. On the other hand, the subject of the -Pron sentence in (22) raises above B to a position in YP, but is free to reconstruct back to its base position, below B. This explains why -Pron sentences have both scopal configuration as possible readings.

   Note that the arguments I have presented all involve the relative positions in the clausal structure of different elements. As far as I can tell, it is still unclear what those positions are, namely which projections correspond to XP, YP and ZP. While addressing this question is beyond the scope of this paper, I suggest a possible way to go about it in the last section. For now, I will keep referring to those projections

as XP, YP and ZP.

Another potential difficulty for this analysis is the fact, noticed by Sichel (2014), that not all resumptive pronouns in Hebrew block reconstruction. As shown by examples like (23a) below, resumptives inside PPs do allow for reconstruction of the extracted element. Sichel (2014) argues that the difference between resumptive pronouns in PPs and resumptive pronouns in direct object position lies in the obligatoriness of the former – Hebrew does not allow for preposition stranding, and therefore the version of (23a) without a resumptive pronoun is ungrammatical, as shown in (23b). From this kind of facts Sichel concludes that a resumptive pronoun in Hebrew allows for reconstruction only if it is obligatory, and hypothesizes an economy constraint to explain this behaviour. The predictions of this analysis for the case of Pron are not clear, and seem to me to depend on the stage in the derivation in which Sichel's economy principle comes into play. Leaving a deeper discussion of this issue for future research, I will only note that my account crucially assumes that Pron patterns like a direct object-resumptive, and not like a PP-resumptive.

(23)   a.   dani imca et ha- iʃa ʃe- hu χolem aleya
                  Dani will.find ACC the- woman COMP- he dreams of.3FSG
                  "Dani will find the woman he is dreaming of." (de re, de dicto) (Sichel, 2014)

         b.   *dani imca et ha- iʃa ʃe- hu χolem al
                  *Dani will.find ACC the- woman COMP- he dreams of
                  Intended: "Dani will find the woman he is dreaming of."

2.3   Interim conclusion

Up until now, I have presented data that support the generalization that Pron blocks reconstruction, and argued that they call for a new analysis of Pron. The analysis I have proposed, which is based on the idea that Pron is a resumptive pronoun, crucially relies on two assumptions: (1) Whenever the subject of a nonverbal sentence raises above a certain position in the clause (YP), it obligatorily leaves a resumptive pronoun in that position; (2) That resumptive pronoun prevents the subject from reconstructing to any lower position. In the next sections I present some predictions of this analysis, and show that they are indeed confirmed.

3   Movement constructions

One immediate prediction that my analysis makes is that whenever the subject of a nonverbal sentence has to raise to a high position for independent reasons, the sentence must be +Pron. In the examples we have seen so far, Pron was always

optional, but it has been observed that that is not always the case. In this section, I will present two such constructions, and show that the obligatoriness of Pron there follows from that prediction.

3.1 Subject-extracted relative clauses

Relative clauses like (24), in which there is a gap in the subject position, are standardly analyzed as involving movement of the subject to the edge of CP, in either the Raising or the Matching analysis (see Hulsey and Sauerland 2006 for a discussion on the topic). Given that CP is the highest projection in any clause, we can safely assume that it is higher than YP, the hypothesized position of the subject in -Pron sentences. It follows, then, that in subject-extracted nonverbal present-tensed relative clauses in Hebrew, Pron should be obligatory. This is indeed the case, as already been observed in Doron 1983. It is demonstrated in (25) below.

(24)   The man who is a teacher

(25)   a.   ha-iʃ   ʃe-   *(hu)   more
               the-man that- *(Pron.3MSG) teacher
               . "The man who is a teacher"   (Doron 1983)
         b.   ha-studentiot ʃe-   *(hen)   gvohot
               the-students   that- *(Pron.3FPL) tall
               "The students who are tall"

Doron (1983) mentions this as an outstanding fact and indeed, it does not straight-forwardly follow from her analysis. However, it follows immediately from the consequence of my analysis that Pron is the reflex of movement of the subject above a certain position.

3.2 Non-definite subjects

Another case in which the subject must move to a high position is discussed in Sichel 1997. She notices that present-tensed nonverbal sentences with a non-definite subject are obligatorily +Pron. The exact definition for definiteness in Hebrew DPs is still debated (see Danon 2001 a.o. for a discussion on the topic), especially in the domain of quantifiers and demonstratives. For our purposes, it is enough to contrast proper names and DPs headed by the definite article *ha-* as in (1), repeated below as (26), with bare NPs as in (27).

(26)   a.   dana (hi)   gvoha
               Dana (Pron.3FSG) tall

"Dana is tall."

  b. ha-studentim (hem) χaχamim
    the-students (Pron.3MPL) smart
    "The students are smart."

(27) a. yeladim *(hem) χamudim
    kids *(Pron.3MPL) cute
    "Kids are cute"   (Sichel 1997)

  b. more tov *(hu)   savlani
    teacher good *(Pron.3MSG) patient
    "A good teacher is patient"

(28) **Sichel's generalization:** Present-tensed nonverbal sentences in Hebrew with non-definite subjects are obligatorily +Pron.

Sichel (1997) relates this pattern to the distribution of the morpheme *et* in Hebrew. This morpheme is standardly treated as accusative marker, but as demonstrated in (29-30), it exhibits differential object marking (DOM) properties – it attaches only to definite objects. Sichel observes that the distribution of subjects of -Pron sentences is identical to the distribution of *et*-marked objects.

(29) a. raiti *(et) dana
    saw.1SG *(et) Dana
    "I saw Dana"

  b. raiti *(et) ha-yeladim
    saw.1SG *(et) the-kids
    "I saw the kids"

(30) a. raiti (*et) yeled
    saw.1SG (*et) kid
    "I saw a kid"

  b. raiti (*et) yeladim
    saw.1SG (*et) kids
    "I saw kids"

Sichel connects the two phenomena by arguing that subjects of -Pron sentences receive case from the same head that assigns the *et*-case to direct objects. The case-assigning head in both cases, according to Sichel, is Agr^0, while non-definite direct objects receive case from V^0. Since nonverbal sentences lack a V projection, and since Agr^0 cannot assign case to a non-definite DP, the only head that can assign case to non-definite subject of nonverbal sentences is I^0. Sichel assumes that -Pron sentences are matrix Small Clauses, and therefore do not contain an I^0, which

explains the unavailability of non-definite subjects in such sentences.

So much for Sichel's (1997) analysis. I would like to adopt one component of it, which relates to the constraints on case-assignment in nonverbal sentences. That is, that definite subjects may be assigned case in a lower position than non-definite subjects. More specifically, I assume that while definite subjects can either receive case in YP or in ZP, non-definite subjects can only receive case in ZP. While it is independent of my general account of Pron, this assumption is sufficient to explain Sichel's generalization without any added stipulations. Specifically, I do not need to assume that -Pron sentences are matrix small clauses, or anything about the size of the clause for that matter. Since I take Pron to be a bi-product of subject raising, the difference between +Pron and -Pron sentences, in my analysis, is just the position of the subject.

Given that non-definite subjects must raise to ZP to be assigned case, they must leave a resumptive pronoun in YP on their way up, similarly to the case of relative clauses. In other words, they must be +Pron. Notice that Sichel's generalization is, in this view, the result of an indirect interaction between definiteness and Pron – both stem from the syntactic constraints on the position of the subject in such sentences.

4 Pron and genericity

4.1 Greenberg's generalization

Up until now, I have only used individual-level NPs/APs as the predicates in the examples I analyze, such as *tall* or *student*[3]. The case of stage-level predicates is more complicated. One general difference between individual- and stage- level predicates is that the latter seem to be ambiguous between a *generic* and an *existnetial* reading, as shown in (31), while the former have only the generic reading. This distinction is manifested, for example, in the incompatibility of individual-level predicates with time adverbials (32).

(31)   Mary is hungry.

      a.   **Episodic:** Mary is hungry now.
      b.   **Generic:** Mary is generally a hungry person.

(32)   a.   #John is sometimes/usually/always tall.   (Magri 2009)

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3 By *individual-level* I mean predicates that tend to be homogeneous throughout long periods of time in an individual's existence. This is a gradient notion – which corresponds to gradience in the phenomenon I examine – but for simplicity, I will treat it as categorial. I remain neutral with respect to the question of whether the distinction between individual- and stage-level predicates has a syntactic reflex or is purely semantic (see Diesing 1992 and Magri 2009 for a discussion on the topic.)

b.   John is sometimes/usually/always hungry.

There have been numerous proposals as to how to conceptualize the difference between the two kinds of readings (see Carlson 1977, Milsark, 1977, Chierchia 1998, Kratzer 1995, Magri 2009, a.o.). Following Magri (2009), I will treat the difference between a generic and an episodic reading in a simplified manner as lying in the nature of quantification over the time argument of the proposition. In the episodic reading of sentences like (31), the time argument is bound by an existential quantifier which is restricted to intervals that contain the utterance time, while in the generic reading, it is bound by a generic quantifier, which universally quantifies over "typical" time intervals, similarly to the adverbial *usually*. These simplified truth conditions are given in (33). They are not meant to be taken as a serious analysis of genericity, but as a way to make explicit the difference between the two readings. To my understanding, any other conceptualization of this difference would work just as well.

(33)   Mary is hungry.

a.   **Episodic:** $\exists t \ [UT \in t \wedge \text{Mary is hungry at } t]$
b.   **Generic:** GENt [Mary is hungry at t]

Another relevant observation, due to Carlson (1977) and Milsark (1977), is that the same mechanism seems to control the interpretation of bare NPs. Examples like (34a) show that English bare plurals like *firemen* are also ambiguous between two interpretations – a generic one ("any typical fireman"), and an existential one ("some firemen"). Furthermore, the two readings of the bare plural seem to be correlated with the two readings of the time of the sentence – when the predicate is individual-level, the bare plural can only be interpreted generically, as shown in (34b). I follow Chierchia (1998) in assuming that the same quantifier binds both the time argument and the individual argument of the subject, as shown in (35). As in the previous case, this is a simplified view aimed for ease of presentation, which ignores important factors like modality, events, and kind-predication. For a detailed discussion, see Chierchia 1998 and Dayal 2004 (a.o.).

(34)   a.   Firemen are available
             Existential: "There are firemen who are available."
             Generic: "Firemen are generally available people."
        b.   Firemen are intelligent
             ***Existential**: "There are firemen who are intelligent."
             Generic: "Firemen are generally intelligent people."

(35)   Firemen are available

    a.   **Existential:** $\exists x, t\ [UT \in t \wedge \text{firemen}(x) \wedge x \text{ is available at } t]$
    b.   **Generic:** $\text{GEN}x, t\ [\text{firemen}(x) \rightarrow x \text{ is available at } t]$

Coming back to Hebrew nonverbal sentences, Greenberg (1998, 2002) noticed an interesting effect of Pron, related to the distinction discussed above. She observed that while in nonverbal sentences with individual-level predicates like *tall* or *student*, Pron has no apparent semantic influence, it does so in the case of stage-level predicate like *hungry* or *drunk*. As demonstrated in (36-37), Pron blocks the existential reading of these sentences, forcing a generic reading (which is in many cases the less natural reading). The generalization that arises is that +Pron sentences only have a generic reading. This effect of Pron is obscured when the predicate is individual-level, since these predicates only allow for generic readings for independent reasons, but becomes detectable with stage-level predicates.

(36)   a.   rina reeva
            rina hungry
            existential: "Rina is hungry (now)"
            Generic: "Rina is a hungry person"
    b.   rina hi   reeva
            rina Pron.3FSG hungry
            *****existential:** "Rina is hungry (now)"
            Generic: "Rina is a hungry person"   (Greenberg, 2002)

(37)   a.   yosi ʃikor
            yosi drunk
            existential: "Yosi is drunk (now)"
            Generic: "Yosi is a drunk"
    b.   yosi hu   ʃikor
            yosi Pron.3MSG drunk
            *****existential:** "Yosi is drunk (now)"
            Generic: "Yosi is a drunk"

(38)   **Greenberg's generalization:** +Pron sentences only have a generic reading.

Why does Pron give rise to this effect? In the standard account of Pron as an agreement clitic, this is again mysterious. Greenberg herself analyzes Pron as a marker of genericity, independently of its syntactic nature, an analysis that seems to me difficult to flesh out in compositional terms. On the other hand, the reconstruction-blocking property of Pron observed in this paper offers a way to connect Greenberg's generalization to its syntactic properties.

The bridge between my proposed analysis of Pron and its effect on genericity is an observation first made by Diesing (1992), which relates the position of the subject of a sentence at LF to the reading the sentence has - generic or existential. Based on data like the German examples in (39-40), Diesing argues that the existential reading corresponds to an LF in which the subject reconstructs into VP. She takes the particle *ja doch* to mark the edge of VP, such that everything to its right must be inside VP, and so concludes from the infelicity of the individual-level predicate in (40a) that an existential reading is available if and only if the subject is interpreted inside VP. This generalization is known as *Diesing's mapping*.

(39)   a.   ... weil ja-doch Feuerwehrmänner verfügbar sind
                  ... since indeed firemen   available are

         b.   ... weil Feuerwehrmänner ja-doch verfügbar sind
                  ... since firemen   indeed available are
                  "... since firemen are available."

(40)   a. *... weil ja-doch Feuerwehrmänner intelligent sind
                *... since indeed firemen   intelligent are

         b.   ... weil Feuerwehrmänner ja-doch intelligent sind
                  ... since firemen   indeed intelligent are
                  "... since firemen are intellig

(41)   **Diesing's mapping:** A sentence has an existential reading if and only if its subject is interpreted inside VP, and a generic reading if and only if its subject is interpreted outside of VP.

Diesing (1992) uses this to explain the unavailability of existential readings with individual-level predicates by arguing that subjects of such predicates are base-generated outside of VP (see Magri 2009 for an alternative account). For my purpose here I can remain agnostic about that debate, since Diesing's mapping is sufficient, in combination with my account, to explain Greenberg's generalization. The fact that +Pron sentences do not have an existential reading follows directly from the unavailability of subject-reconstruction – the subject has to be interpreted in a high position, giving rise to a generic closure. In this sense, the Hebrew data in (36-37) is the mirror image of the German data in (39-40) – it shows that when the subject is trapped in a high position, only the generic reading is available.

But we can also use Diesing's mapping to learn something about the positions of XP, YP and ZP. Assuming that VP is indeed the border between the existential closure domain and the generic one, XP must be inside VP, while YP must be outside of it. That is because, as we have seen, -Pron sentences have both the generic and the existential reading. The generic reading must be the result of the subject being

interpreted in YP, while the existential reading the result of it reconstructing to XP.

4.2 Genericity with bare plurals

In the previous section, we have seen two cases in which the subject has to move to a high position, making the sentence obligatorily +Pron. Given my analysis of Greenberg's generalization, we expect such sentences to be obligatorily generic, since Pron prevents their subject from reconstructing to a position inside the existential domain. Specifically, examples like Carlson's firemen sentences (34) are predicted to be unambiguous regardless of the type of predicate, since the bare plural subject forces the sentence to be +Pron. That is due to Sichel's generalization, repeated below as (42).

(42)   **Sichel's generalization:** Present-tensed nonverbal sentences in Hebrew with non-definite subjects are obligatorily +Pron.

Indeed, as we can see in (43), the difference between individual- and stage-level predicates with respect to genericity is neutralized – the obligatoriness of Pron forces both sentences to be generic.

It is important to note that this is only true of nonverbal sentences. Since verbal sentences do not have Pron in general, they should always allow for reconstruction of the subject, and can therefore serve as a control test, to make sure that the unavailability of the existential readings is really due to Pron. As shown in (44), a minimal verbal counterpart of (43) indeed allows for both readings.

(43)   a.   kabaim *(hem)   pnuim
               firemen *(Pron.3MPL) available
               *__Existential__: "There are firemen who are available."
               __Generic__: "Firemen are generally available people."
         b.   kabaim *(hem)   χaχamim
               firemen *(Pron.3MPL) intelligent
               *__Existential__: "There are firemen who are intelligent."
               __Generic__: "Firemen are generally intelligent people."

(44)   kabaim mesaXkim kaduregel
         firemen play   football
         __Existential:__ "There are firemen who are playing football."
         __Generic:__ "Firemen generally play football."

4.3 Genericity in relative clauses

The second case of obligatory Pron we have examined is that of subject-extracted relative clauses. As shown in (25), repeated below as (45), nonverbal present-tensed relative clauses in which the subject is raised must be +Pron. Here too, while there is no direct connection between the construction itself and genericity, we predict that whenever they are nonverbal and present-tensed, such clauses will only have a generic interpretation. That is because Pron will prevent the extracted subject from reconstructing into the existential closure domain.

(45)   a.   ha-iʃ   ʃe-   *(hu)   more
            the-man that- *(Pron.3MSG) teacher
            "The man who is a teacher"   (Doron 1983)
       b.   ha-studentiot ʃe- *(hen)   gvohot
            the-students that- *(Pron.3FPL) tall
            "The students who are tall"

Examples like (45), in which the predicate is individual-level, are predicted to be generic for independent reasons – as discussed above, this kind of predicates do not allow for existential readings. The prediction of my analysis becomes testable when switching a stage-level predicate, like in (46) below. The prediction seems to hold – once again, the presence of Pron neutralizes the difference between individual- and stage-level predicates. And once again, we can control the effect of the construction itself by setting up an example with a verbal stage-level predicate. As demonstrated in (47), the existential reading indeed becomes available in those cases.

(46)   a.   ha-iʃ   ʃe-   *(hu)   raev
            the-man that- *(Pron.3MSG) hungry
            ***Existential**: "The man who is hungry (now)."
            Generic: "The man who is generally a hungry person."
       b.   ha-studentiot ʃe- *(hen)   ʃikorot
            the-students that- *(Pron.3FPL) drunk
            ***Existential**: "The students who are drunk (now)."
            Generic: "The students who are drunks"

(47)   ha-iʃ   ʃe-mesaχek kaduregel
       the-man that-plays   football
       Existential: "The man who is playing football"
       Generic: "The man who generally plays football"

5 Conclusion and further questions

In this paper, I have presented a novel analysis for Pron, a Hebrew particle that appears in present-tensed nonverbal sentences and has been so far usually assumed to be an agreement clitic. The core of my account is the claim that Pron is a resumptive pronoun, the result of movement of the subject to a higher position in the clause. I argue that the position of Pron is in an intermediate position between the position in which the subject is base-generated and its surface position. The observation that motivates this analysis is the correlation between the existence of Pron in a sentence and the scope of its subject. I show that Pron forces the subject to be interpreted in a high position – higher than elements like raising predicates and QR'd object quantifiers – by preventing it from reconstructing. This is in line with the behaviour of resumptive pronouns in direct object position of relative clauses in Hebrew. Moreover, I show that movement of the subject to a high position like spec,CP forces the existence of Pron. This allows for a use of Pron as a diagnostic for the position of the subject at LF, which is usually difficult to pin down due to the possibility of reconstruction. In the last section, I demonstrate how it can be used to explain some facts about genericity, an area of intricate interaction between syntax and semantics.

A number of questions remain open and call for further research. First, what is the differentiating factor between verbal and nonverbal sentences that requires the subject to leave a resumptive pronoun as it moves above a certain position in the latter but not in the former? Answering this question may give us an insight into the difference in syntactic properties between verbs and categories like nouns and adjectives.

Second, why do resumptive pronouns in certain positions block reconstruction, and what is the governing factor that determines what are those positions? Sichel (2014) shows that resumptive pronouns inside PPs do not block reconstruction, and takes it to be the result of some economy constraint. If I am right in my hypothesis about Pron, it is interesting to try and understand how it might fit in this kind of picture.

Finally, the positions through which the subject passes in the derivation, which I termed XP, YP and ZP, are still unclear to me. There are some clues, however. The reconstruction data presented in section 2 indicate that YP and ZP dominate the position of raising modals and QR'd object quantifiers, while XP is below it. The discussion of Sichel's generalization in section 3 may also be used to shed some light on this issue. Assuming, as Sichel (1997) argues, that non-definite subjects of nonverbal sentences raise to a high position for case reasons, that means that no head which is governed by YP can assign case to them. And if, indeed, the head that assigns case to subjects of -Pron sentences is the same head that assigns *et*-case to

direct objects, that head needs to be governed by YP. Finally, as mentioned in the previous section, the genericity data seem to indicate that the lower projection, XP, is inside the existential closure domain, while the intermediate position YP is outside of it. Assuming, following Diesing (1992), that the existential closure domain is vP, we can conclude that it is the upper bound for XP, and the lower bound for YP.

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Omri Doron
omrid@mit.edu
32-D766, 32 Vassar St., Cambridge, MA, 02139, USA