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## An ECP Account of the Non-Overt Copula in Israeli Hebrew

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## 1.0 The Problem

Data involving the absence of an overt copula, as illustrated in (1) and (2) in Hebrew, pose the intriguing question as to whether Infl must always be base-generated.

1.	a.	Dani more	2. a. *Dani ha-more
		Dani teacher	Dani the-teacher
	b.	Dani hu more	b. Dani hu ha-more
		Dani H teacher	Dani H the teacher
		'Dani is a teacher.'	'Dani is the teacher.'

As has been argued by Rapoport (1987) and Ennaji (1987), it is conceivable that the sentence in (1a) involves a matrix small clause without Infl or Comp. Such an approach must then explore the conditions under which Infl may or may not be generated. Given the inherently close relation between Comp and Infl, such an analysis would logically create links between the presence/non-presence of Infl and that of Comp. Thus, the sentence in (1a) has been argued to provide support for the thesis that Infl does not need to be generated if there is no Comp. This hypothesis does not, however, extend readily to the embedded contexts in (3) and (4). In these cases, Comp is uncontroversially generated as evidenced by the complementizer Se 'that' and presumably will select IP as its complement.

3. amarti Se-[ha-melex \*(hu) david]
said-I that the king H David 'I said that the king is David.'
4. hu xoSev Se-[dani (hu) more] he thinks that Dani (H) teacher 'He thinks that Dani is a teacher.'

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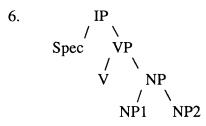
These facts lead to the prediction that Infl will always be generated and thus filled in these contexts. Yet, the data do not support such a conclusion. Instead, the distribution of an overt copula in embedded contexts where no extraction has taken place, in (3) and (4), is identical to the matrix sentences in (1) and (2). There does not seem to be any a priori reason for assuming that Infl is non-existent in (1a). Consequently, an alternative analysis, one in which Infl is generated in all Hebrew sentences, is also plausible. The question then becomes why some sentences seem to allow a non-overt copula as in (1), whereas in equative sentences such as (2), a verb-like element which we will call H following Rapoport, must obligatorily surface.

In order to explore this question, it is first necessary to understand the nature of the copula. Let us assume that the copula behaves in a manner not unlike a syntactic  $\lambda$ -operator, able to index any phrasal catagory and form a predicate

which then assigns an external  $\theta$ -role to a subject. On this view, the subcategorization frame of the copula represents a discontinuous predicate and can be schematized as in (5).

5. [be<sub>i</sub> .... XP<sub>i</sub>]

The resulting structure, illustrated in (6) where XP=NP2, contains a small clause under the copula, following assumptions argued for in Stowell (1983) and Heggie (1988b).



A consequence of the configuration in (6) is that NP2 of equative sentences, an element which is assumed to be inherently referential, will always be base-generated in a predicate position. I am thus assuming that all copular sentences contain a subject-predicate configuration, as argued in Heggie (1988b, 1989).

## 2.0 NP2 as a Referring Expression

The assumption that all copular sentences contain a subject-predicate structure is uncontroversial for predicatives, but consider now the case of equatives such as those in (7), where the two NP constituents have been generally assumed to be arguments (Williams, 1984; Safir, 1985).

- 7. a. [NP1 That man ] is [NP2 Ronald Reagan ].
  - b. [NP1 The Morning Star] is [NP2 the Evening Star].
  - c. [NP1 Cet homme là-bas ] est [NP2 Jean-Luc ]. that man over there is Jean-Luc

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That NP2 is referential in equative sentences can be easily demonstrated.<sup>1</sup> Consider first the fact that names can be easily modified by an intensive reflexive, as in (8).

8. That old woman is [NP2Peter Sellers] himself.

On the assumption that intensive reflexives modify definite arguments, we can minimally conclude that NP2 is referential.

A second indicator of the referential nature of NP2 is its ability to introduce a discourse referent. Consider the discourse fragments in (9)-(10).

- 9. a.#That man is Jack Jones. I don't know what's wrong with that man, but.. b. That man is Jack Jones. I don't know what's wrong with him, but...
  - c. That man is Jack Jones. I don't know what's wrong with Jack, but...
- 10. a. That man is sick. I don't know what's wrong with that man, but...
  b. That man is sick. I don't know what's wrong with him, but...
  c.#That man is sick. I don't know what's wrong with Jack, but...

The segments of discourse in (9) illustrate the fact that a name will unilaterally introduce a discourse referent. Specifically, the fragment in (9a) demonstrates that *that man* loses its deictic force once the individual has been named, allowing only an epithetic reading; the name in NP2 position immediately labels the individual and becomes the antecedent for all further reference. The pieces of discourse in (10) illustrate the same sequences but without NP2. In these cases, the deictic force of *that man* remains; *Jack* in (10c) cannot unambiguously pick up the reference of *that man*. The addressee must either overtly confirm that Jack is the person who is sick or allow conversational maxims to determine a connection between the person being pointed to and a name which is presupposed to be referential. These facts suggest that the copula plays a major role in English in the direct labeling of individuals and that NP2, *Jack Jones* in this instance, is a referring expression.

## 3.0 NP2 as a Predicate

The fact that elements in NP2 position may be interpreted as referential does not, however, force the conclusion that NP2 is an argument position. There are in fact a number of syntactic tests which provide evidence for positing the basegeneration of names in a predicate position. The first piece of evidence is drawn from predicate clitic data in French. As shown in (11), French arguments may normally be cliticized, in this instance to *le* or *la* depending on the gender of the referent.

Je la/le vois.
 I her/him-see
 'I see her/him.'

<sup>&</sup>lt;sup>1</sup>The fact that names in postcopular position may have a predicative interpretation in English bears on the present discussion in an interesting way, but is tangential to our immediate purpose. There is in fact some crosslinguistic variation in the properties of names in postcopular position. See Heggie (1988b) for further discussion.

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With the assumption that NP2 is an argument, we would predict that an argument clitic is generated in equative sentences. This is not however the case. As illustrated in (12), equative sentences in French do not accept a referential pronominal clitic.

12. a.*Cette femme là-bas la sera. that woman over there her-will be	(la=Mme. DuPont)
b.*Jean l'est.	(le=cet homme là-bas)
Jean him-is	that man over there
c.*L'Etoile du Matin l'est.	(le=L'Etoile du Soir)
The Morning Star it-is	The Evening Star

If the sentences in (12) are to have an interpretation it is to predicate of the subject some property already introduced into the discourse. Moreover, this predicate clitic may not substitute for a name, confirming our hypothesis that names in NP2 position in French must be referential. The clitic in these sentences is obligatorily predicative, indicating that the postverbal position with which the clitic is coindexed is a predicate position and not an argument position.

More evidence for the predicational nature of the position in which NP2 occurs comes from the distribution of *only* in English. Given the data in (13), we are led to the conclusion that *only* may modify elements that are in A positions as in (13a-c) or in the predicate position of the copula as in (13d) but *only* cannot modify elements which have moved to an A'-position, as in (13e).

- 13. a. John saw only the teacher.
  - b. Only John saw the teacher.
  - c. Who saw only what?
  - d.\*Only what/who did John see?
  - e. John is only sick.

Compare now this conclusion with the data in (14).

14. a. Only that man over there is Ronald Reagan.b.#That man over there is only Ronald Reagan.c.\*Only Ronald Reagan is that man over there.d.#Ronald Reagan is only that man over there.

If both *Ronald Reagan* and *that man* are in A-positions *only* should be able to modify them equally. Instead, the modification of the postverbal NP in (14b) and (14d) by *only* leads to a statement about affect. More importantly, against all predictions, the sentence in (14c) is ungrammatical. Following Heggie (1988a), we can solve the problem in the following manner: if *Ronald Reagan* in (14c) is in fact a fronted predicate which has moved to the Spec of CP and triggered SAI, the S-structure of this sentence would be that illustrated in (15), where *Ronald Reagan* is now moved to an A' position, a position which we have seen to disallow the felicitious interpretation of *only*.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup>Indices indicate movement only throughout.

15. [CP only [NP Ronald Reagan<sub>i</sub>] [C is<sub>k</sub>] [IP that man over there  $t_k$   $t_j$   $t_i$ ]]

Further evidence can be adduced from the nature of cleft sentences in English and French. Consider the sentences in (16) and (17).

- 16. a. That man over there is Ronald Reagan.b. It's that man over there that is Ronald Reagan.c.\*It's Ronald Reagan that that man over there is.
- 17. a. Ronald Reagan is that man over there.b.\*It's Ronald Reagan that is that man over there.c.\*It's that man over there that Ronald Reagan is.

If both NP1 and NP2 were arguments, we would expect to find all clefting configurations to be possible. In fact this is not the case. Instead, *Ronald Reagan* exhibits the syntactic properties of a predicate, which cannot be clefted. To understand why predicates cannot be clefted, consider the structure of cleft sentences in (18).

18. [IP it be [CP XP [CP OP<sub>i</sub>+that [IP .....t<sub>i</sub>......]]

At S-structure, a null operator moves from a position in the embedded clause to the Spec of CP where it is identified by the lexical phrase(XP) in cleft position. At D-structure, the null operator must be able to carry out all requirements of the

Projection Principle in order for the sentence to be well-formed, eg., bear a  $\theta$ -role. A problem occurs, however, when the null operator surfaces in a predicate

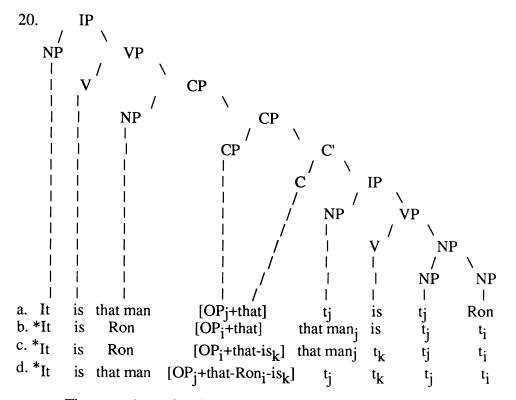
position, a position which must assign  $\theta$ -roles at D-structure. Since null operators

do not bear a  $\theta$ -grid, as demonstrated in Heggie (forthcoming), the sentence will not be well-formed. This observation is formulated as the Null Operator Generalization(NOG) in (19).

19. The Null Operator Generalization (Heggie, forthcoming) A null operator cannot assign any theta-roles.

This explanation accounts for the ungrammaticality of (16c) where the null operator must originate in the predicate position. This structure is given in (20b) below. As for (17b) and (17c), that both of these sentences are ungrammatical suggests the earlier analysis in Heggie (1988a) where movement to the Spec of CP with SAI has occurred. Accordingly, the sentence in (17b) where SAI has obtained is parallel to (16c) and is ungrammatical because of NOG, as illustrated in (20c). The sentence in (17c) is ungrammatical because there is no landing site for *Ronald Reagan* in CP as CP is already filled with the null operator, the complementizer *that*, and *is*. This structure is shown in (20d).

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The second set of clefting data comes from French, where the nature of the French complementizer allows us to gain further insight into equative sentences. Following the formulation in Pesetsky (1982) of an earlier insight of Kayne's, French has a rule where *que* 'that' changes to *qui* 'who'when it is needed to properly govern a subject trace, as captured in (21).

Que/Qui Rule (Pesetsky, 1982) 21.  $[CP wh_i/t_i \text{ que }] \longrightarrow [CP qui_i] / \____ [IP... [t_i, +Nominative]...]$ 

With this in mind, consider the cleft sentences in (22).

- 22. a. Cet homme là-bas est Jean-Luc. that man over there is Jean-Luc
  - b. C'est cet homme là-bas qui est Jean-Luc. It is that man over there who is Jean-Luc
  - c. C'est Jean-Luc \*qui/\*?que cet homme là-bas est. It is Jean-Luc that that man over there is
  - d.\*?C'est Jean-Luc qu'est cet homme là-bas.

The clefting of NP1 *cet homme là-bas*.'that man over there'.in (22a) forces the surfacing of *qui*, indicating that *cet homme là-bas* is the subject. The clefting of NP2 *Yves Montand*, on the other hand, does not force *qui* to surface. If this sentence is at all grammatical, the complementizer must be *que*, a fact which leads to the conclusion that *Yves Montand* is not a subject. The stranding of the copula in (22c) might be considered to be the source of its ungrammaticality, however, introducing stylistic inversion as in (22d) does not improve its acceptability. The sentences in (22) thus clearly mirror the clefting properties of predicative structures.

Moreover, the inverted version of (22), in (23), does not allow either NP to be clefted.

- 23. a. Jean-Luc est cet homme là-bas.
  - Jean-Luc is that man over there
  - b.\*C'est Jean-Luc qui est cet homme là-bas.
    - It is Jean-Luc who is that man over there
  - c.\*C'est cet homme là-bas qui/que Jean-Luc est. It is that man over there that Jean-Luc is

This is particularly surprising for the sentence in (23b) unless we assume an analysis in which *Yves Montand* triggers SAI when it fronts to the Spec of CP, following the structures given in (20c) and (20d).

To summarize to this point, all of our syntactic criteria such as cleft configurations and clitics in French suggest that equative sentences involve a subject -predicate relation. On the other hand, criteria pointing to the inherent nature of names in NP2 position such as coreference across discourse argue that these names are referential. We are thus led to a contradiction--that an element in NP2 position can be both a predicate and a referring expression. In order to move past this contradiction, it is necessary to consider for a moment what triggers equative interpretations.

## 4.0 The Nature of Identity

Consider a prototypical equative sentence such as the one in (24).

24. The Morning Star is the Evening Star.

This sentence is equative only to the extent that the addressee knows that the Evening Star is Venus and that the Morning Star is Venus. Otherwise, the name Evening Star, which can be thought of as a label, is being predicated of a known referent, the Morning Star. Only once an individual has learned that the Morning Star and the Evening Star are both pseudonyms for Venus can the sentence be used in an equative manner. Thus background knowledge is essential to assigning an equative interpretation to a sentence. It is the presupposition that names are always referential, however, which has led us to conclude that sentences such as (24) must always have an equative interpretation.

Consider another example where the availability of a unique referent in the domain of discourse triggers an equative interpretation and in fact allows for a sentence which in neutral situations would be ungrammatical. Consider the sentences in (25) which contain a pseudo-equative where, following Heggie (1988a), *the dentist* is in the Spec of CP and SAI has occurred. As shown in (25b) and (25c), clefting of this sentence is impossible.

- 25. a. The dentist (in the family) is John.
  - b.\*It's the dentist that is John.
  - c.\*It's John that the dentist is.

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Now consider a scene where some people are watching a play and are trying to make out their friend John among the actors. One of the characters is a dentist, so when an identification is made, one could utter the sentence in (26).

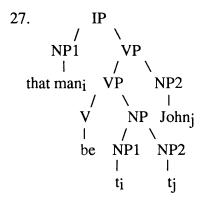
#### 26. It's the dentist that's John!

In this case, *the dentist* refers to a unique individual present on stage and an equative interpretation is possible. Moreover, given what we know about clefts, *John* in (26) must be in a predicate position. Recall that the configuration in (20a) where extraction of the null operator from subject position is the only grammatical possibility for clefts. We can thus conclude that *the dentist* in (26) is a subject and *John* is a predicate.

Equative interpretations are thus not the result of a D-structure configuration, but constitute a derived structure where how much is known about a given referent and whether we have assigned a unique referential index to that NP play a crucial role. Clearly, it is only when both NPs in the sequence NP1 *is* NP2 are terms for individuals that the sentence gains an equative interpretation. Moreover, the referential status of an NP does not affect the structural configuration or basic properties of the copula.

## 5.0 The Syntax of Equative Copular Sentences

I will thus adopt the following analysis for the equative interpretation of copular sentences. Given the fact that a name in NP2 position behaves syntactically like a predicate, it must originate in a predicate position. However, for an expression which is presupposed to be referential such as a name, it is reasonable to assume that it requires Case in order to be interpreted, which it cannot get if it remains in predicate position. Logically, NP2 must move at S-structure. Given the requirements that adjunction occurs at maximal projections (Chomsky, 1986) and that subjects must c-command their predicate (Williams, 1980), the structure in (27) is the only logically available S-structure of equative sentences.



Two possibilities for how NP2 gets Case can be suggested. The first is that we have structural Case in these instances. The second is that an unbalanced chain along the lines of Safir (1985,1987) can be generated. Given that NP2 shares the same index as NP1 and is not a  $\theta$ -bearing element, there is no immediate reason to disallow this possibility. Whatever the ultimate analysis of NP2 involves with respect to Case, it is in fact only a subset of a larger set of data identified by

Rochemont (1986) as structures involving "constructional focus." Constructional focus is the hypothesized syntactic reflex of focus in discourse where a constituent extraposes to a VP-adjoined position. Thus, equative sentences can be compared to the sentence in (28) and the mechanism by which NP2 in (27) gets Case will be non-distinct from how the NP in brackets in (28) gets Case.

28. There arrived in the room [a man from Boston].

## 5.1 Some Properties of Focus in Equative Sentences

There is in fact evidence to support an analysis of equatives which incorporates the notion of focus. Consider for example the behavior of *so* in coordinate structures. As illustrated in (29), focused elements in the first conjunct can only be coordinated with *so* in the second conjunct if *so* is also focused by being fronted to the Spec of CP.

- 29. a.\*John HIT Mary and Bill did so, too.
  - b. John HIT Mary and so did Bill.
  - c.\*HIT MARY, John did and Bill did so, too.
  - d. HIT MARY, John did and so did Bill.

Consider now the case of copular sentences.

- 30. a. John is intelligent and Bill is so, too.b. John is intelligent and so is Bill.
- 31. a.\*That man is John and that man is so, too.
  - b. That man is John and so is that man.

In the predicative sentences in (30), so may remain in the predicate position or be fronted since its antecedent *intelligent* is in an unfocused position. In the equative copular sentences in (31) however, so must front to a focused position in order to be felicitous, thus leading to the conclusion that its antecedent *John* (NP2) must also be focused.

If we accept that focus is a fundamental property of NP2 in equative sentences, it is not yet clear whether we are dealing with focus at LF or at Sstructure. To explore this issue I will draw on data based on the Coordinate Structure Constraint(CSC) in English and intensive reflexives in French. Consider first that focus at LF, signalled by stress, easily violates the CSC, as shown in (32).

- 32. a. Bill saw Jane and TOM.
  - b. Bill saw JANE and Tom.

On the other hand, focus which occurs at S-structure, such as in the case of topicalization, must obey the CSC, as in (33).

33. a.\*Tom, Bill saw Jane and \_\_\_. b.\*Jane, Bill saw \_\_ and Tom.

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These facts suggest the following prediction for equative sentences: if NP2 undergoes focus raising at LF, it should be able to freely appear with other copular predicates which are not referential. If, however, NP2 obligatorily moves at Sstructure, it will not be capable of coordinating with other copular predicates unless both conjuncts are referential. The facts are that, although two attributive NPs may be coordinated under the copula, as shown in (34), predicative and referential NPs cannot be mixed, as illustrated in (35).

- 34. a. John is a fool and a coward.
  - b. Bill is a swindler and a crook.
- 35. a.\*That man is David Smith and a banker.

b.\*Cet homme est Til Amanieux et un musicien connu. 'This man is Til Amanieux and a famous musician.'

Note, however, that two names may be conjoined, as in (36).

- 36. a. That man is Cicero and Tully.
  - b. Cet homme est Cicéron et Marcus Tullius.

These facts suggest that referential NPs under the copula must undergo focus, that is movement to an A'-position, at S-structure. The sentences in (35) violate the CSC; the sentences in (36) do not because the entire coordinate structure under the copula may extrapose.

## 5.2 Constructional Focus and Equative Sentences

Our evidence thus far suggests that names in NP2 position undergo focus movement at S-structure, a movement which for theory-internal reasons is favored to involve extraposition to a VP-adjoined position, as shown in (27). Following Rochemont (1986) we will call this the "constructional focus" position, a position which Rochement has shown to be linked to presentational focus. He argues that constituents in this position must be presentationally focused, displaying the following characteristics typical of presentational focus: 1) these structures have a restricted distribution in discourse and 2) pronouns in the constructional focus position are limited in the type of interpretation they may trigger. Interestingly, the behavior of equative copular sentences in discourse mirror these properties.

Following Rochemont, the sequence of discourse in (37) illustrates the fact that presentationally focused constituents such as *sofa* may correspond to a *wh*-question as in (37b) or to a neutral declarative as in (37a).

- 37. What was standing next to the fireplace?
  - a. A large old SOFA stood next to the fireplace.
  - b. Next to the fireplace stood a large old SOFA.

However, if the *wh*-question bears on material other than the focused NP *sofa*, *sofa* may not appear in the constructional focus position, as shown in (38).

- 38. Where did that old sofa stand?
  - a. That old sofa stood next to the FIREPLACE.
  - b.\*Next to the FIREPLACE stood that old sofa.

Moreover, stress on *sofa* does not improve the grammaticality of (38b), unlike more canonical sentences such as (37a) and (38a) which only need a change in stress pattern to adapt to a given context. Rochemont thus surmises that sentences which contain a constructional focus position, hypothesized to be the VP-adjoined extraposed position, do not have any flexibility in their stress patterns, similar to lexical words; the requirement that the extraposed NP be focused forces a stress prominence on the NP, resulting in a conventionalized stress pattern much like a word rather than allowing for a number of different stress patterns, as is allowed in canonical clausal structures. Now compare the facts in (37) and (38) with those for the equative sentences in (39) and (40). If the name in NP2 position is indeed obligatorally presentationally focused, no constituent should be able to be focused other than NP2.

- 39. Who's that man?a. That man is JOHN.b. JOHN is that man.
- 40. \*Where is that man John? a.\*That man is John at CHURCH. b.\*John is that man at CHURCH.

As predicted, NP2 may be *wh*-questioned in (39), but no other constituent may be focused, as shown in (40).

Consider now the behavior of pronouns. Pronouns may usually be interpreted as either anaphoric or deictic, that is, they may rely on an antecedent for reference or with stress and pointing, may be used deictically. In the context of constructional focus in (41), however, only deictic pronouns are licit.

- 41. a. Into the forest ran HIM.
  - b. There stood before him, HER.
  - c. Sitting on the bed was THAT.

Moreover, only certain pronouns may appear; first and second person pronouns as well as *it* are ungrammatical, as shown in (42).

42 a.\*Into the forest ran ME.b.\*Next to his father stood YOU.c.\*At the edge of the clearing was IT.

This distribution is expected given that the speaker and addressee do not need to be presented and the deictic form of *it* is *this* or *that*. Turning to equative sentences, the distribution of pronouns in NP2 position parallels that of pronouns in constructional focus position, leading to the conclusion that NP2 must be presentationally focused. As shown in (43), the NP2 position may be filled with *him, her*, or *that*, which can only be interpreted as deictic.

- 43. a. John is HIM.
  - b. Mary is HER.
  - c. The monster is THAT.

A discourse fragment which forces an anaphoric reading, as in (44), results in ungrammaticality.

44. A: Who's our man in London? B: John is \*him/it.

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On the other hand, as shown in (45), you and it are clearly ungrammatical in NP2 position on a deictic reading; me seems possible as an answer to Who's John?, which would be a presentational use.

45. a. John is ME.

b.\*Mary is YOU.

c. That whale is Moby Dick/\*IT.

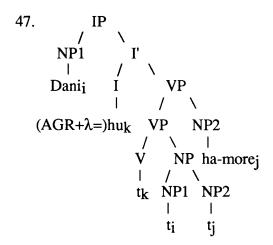
The behavior of presentationally focused pronouns thus provides us with a strong empirical argument for positing the NP2 position of equative copular sentences as a position which obligatorily has presentational focus. To the extent that presentational focus can be tied to a syntactic position in constructional focus sentences, these facts argue for the extraposition of NP2 to a VP-adjoined position.

## 6.0 Copular Sentences in Hebrew

Let us now return to Hebrew, where the present analysis offers an explanation for the data in (1)-(4) in the following way: A non-overt copula, call it  $\lambda$ , coindexes with an XP which then becomes the predicate of a small clause. This predicate selects a subject, which raises at S-structure to the Spec of IP in order to receive Case from AGR. Agreement on the predicate will result from the predication structure, resulting in (46) as the structure for predicative copular sentences in Hebrew.

As for  $\lambda$ , the functional nature of the copula is hypothesized to allow it to remain non-overt in Hebrew; in this case, the copula simply remains in situ and the features of AGR must remain non-overt. However, if the copula moves to Infl, a second option, it will become overt when it picks up the features of AGR, thus becoming lexical. This analysis then captures the general observation that H recalls the behavior of a pronominal clitic in that it cannot be stressed, stranded, fronted independently of the predicate XP, or separated from the subject by an adverb or negation (Berman & Grosu, 1976; Doron, 1986; Rapoport, 1987). But in addition, the acknowledged verbal qualities of H may also be accounted for, such as the fact that H is in complimentary distribution with the past tense copula and agrees with subjects only in number and gender, identical to other present tense verbs.

The analysis of equative sentences, as has been argued above, requires a different S-structure, illustrated in (47).



Assuming the ECP as formulated in Aoun, Hornstein, Lightfoot & Weinberg (1987), where two requirements are placed on a trace--lexical head government at PF and generalized binding at LF--an understanding of equatives can be achieved. As seen earlier, NP2, the name in predicate position, must extrapose in order to be interpreted as a name and locally bind its trace. NP2 does not, however, lexically

head-govern its trace. This state of affairs forces  $\lambda$  to raise to Infl and undergo lexicalization with AGR so that it may lexically head-govern the trace of NP2 via

the trace of  $\lambda$  under V. The obligatoriness of H in equative sentences and its optionality in predicatives can thus be understood in terms of the need for proper government of a predicate trace in the case of equatives.

Further evidence for this analysis derives from data centering on extraction from subject position. As shown in (48), H must always surface in this context, for predicatives (cf. (48a,c)) as well as equatives (cf. (48b,d)).

- 48. a. ha-baxur Se-'amar-ta Se- [e] \*(hu) student the young man that-said-2sm that- H student 'the guy who you said is a student'
  - b. ha-'iSa Se-'amar-t Se- [e] \*(hi) ha-menahel-et the woman that-said-2sf that- H the director-f 'the woman who you said is the director'
  - c. mi amar-ta Se- [e] \*(hu) student who said-2sm that- H student 'Who did you say is a student?'
  - d. mi amar-ta Se- [e] \*(hu) ha-melex who said-2sm that- H the king 'Who did you say is the King?'

Moreover, as shown in (49), H cannot surface when the verb is not the copula.

49. mi amar-ta Se- [e] (\*hu) holex ba-regel who said-2sm that- (H) walks on foot 'Who did you say walks/is walking on foot?'

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These data lead us to the conclusion that in order for licit extraction from subject position to occur, there must be an overt element in Infl (eg.,verb) present in order to lexically head-govern the trace in subject position.

This conclusion is further substantiated by the data in (50)-(51). In extractions out of a predicative copular sentence, *lo* 'not', which is located in Infl (Rapoport, 1987), is able to act as a lexical governor of the trace formed as a result of subject extraction, instead of H.

50. mi amar-ta Se- [e] \*(lo) student who said-2sm that not student 'Who did you say is not a student?'

This fact is to be expected, given that H is not an absolute requirement to the grammaticality of predicative copular sentences. *Lo* must thus fulfill the function of rendering Infl lexical and properly govern the trace in subject position. The fact that the subject is being extracted does not affect the well-formedness of the predication,

and therefore,  $\lambda$  may optionally remain under VP. Equative sentences, on the other hand, do not allow *lo* to fill the role of lexical head governor. Instead, H must surface, as illustrated in (51b).

- 51. a. \*mi amar-ta Se- [e] lo ha-more who said-2sm that not the teacher 'Who did you say is not the teacher?'
  - b. mi amar-ta Se- [e] hu lo ha-more who said-2sm that H not the teacher

These facts support the conclusion that the extraposition of NP2 at S-structure

forces  $\lambda$  to raise to Infl so as to lexically head-govern the trace of NP2. Because  $\lambda$  already head-governs the predicate position (although not lexically), another element such as *lo* cannot take that function over. Equative sentences thus necessarily differ from predicative sentences because of the status of the predicate at S-structure.

The present analysis thus offers us interesting insight into the non-overt copula in Hebrew. Data which remain problematic to this analysis (among others) are those which contain pronominal subjects. An additional area for future inquiry concerns extraction from object position, where judgements have been contradictory (cf. Rapoport, 1987).

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