In: Graham Katz, Sabine Reinhard, and Philip Reuter, eds. (2002), *Sinn & Bedeutung VI, Proceedings of the Sixth Annual Meeting of the Gesellschaft für Semantik*, University of Osnabrück

ADJECTIVES IN CONSTRUCT*

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Abstract

Hebrew construct-state adjectives (CSAs) show syntactic agreement with an element to which they bear little semantic relation on the surface. I propose that the CSA combines with its complement to form a complex predicate, which behaves like a simplex adjective: the complex predicate semantically modifies and agrees with the noun outside the construct, and the agreement is indicated on the head of this complex predicate, namely the CSA. The one trait that sets CSAs apart from simplex adjectives is that CSAs must be followed by a noun phrase headed by a relational noun (e.g. *se'ar* 'hair' in the example above). I attribute this idiosyncrasy of CSAs to their distinct type, also signaled in their distinct morphology: CSAs are functions seeking relation-type predicates as their arguments. The proposed analysis thus manages to explain all the properties of CSAs while maintaining a maximally straightforward relation between syntax and semantics, and semantics and morphology.

1 Introduction

This paper proposes an analysis of construct-state adjectives (CSAs) in Hebrew. CSAs are characterized by construction-specific properties on the one hand, and by traits proper to their lexical/syntactic category on the other. I claim that the CSA combines with its complement—the noun following it—to form a complex predicate, which behaves similarly to simplex adjectives. The proposed analysis captures both the parallel between construct-state nouns and CSAs, and between CSAs and simplex adjectives. The proposal also accounts for the restrictions placed on the complements of CSAs to inalienable nouns, a long-standing puzzle in the literature.

The paper is organized as follows: I begin with a description of CSAs and the problem they have posed for previous analyses—the issue of what it is they are predicating of, the heretofore mysterious restrictions on their complement, and the possessor-possessum relation between the modified noun and the complement to the adjective in construct. Next, I lay out the basis for my analysis by teasing out properties of these CSAs into traits proper to the construction (§3.1) or the construct form (§3.2) and traits proper to all adjectives (§3.3). In §4,

* I am greatly indebted to the participants of the Genitive/Possessive Superseminar (Fall 2000, University of Massachusetts, Amherst) and the audiences at HUMIT (Fall 2001, MIT) and Sinn und Bedeutung VI (Fall 2001, Osnabrueck Universitaet). Most examples in this paper are my adaptations of Hazout's (2000). Special thanks to Ben Gelbart, Uri Strauss, and Shai Cohen for their help in the adaptation process, as well as for their judgments on the adapted data. This work is supported by the National Science Foundation under Grant No. BCS-9905748 to Barbara H. Partee, "Integration of Lexical and Compositional Semantics: Genitives in English and Russian".

I sketch my analysis of CSAs: CSAs form a complex predicate with their complement, from which the "puzzling" restrictions on the CSA complements are shown to follow. §5 takes a closer look at the distinction of inalienability from various points of views.

2 Adjectives in Construct

The following examples illustrate CSAs, delimited by brackets below:

(1) a. *na'ara* [*yefat* *eynayim*]
girl.FM.SG.IND pretty.FM.SG.CS. eye.FM.DUAL.IND
'a pretty-eyed girl' [Adapted from Hazout 2000:29]

b. *na'ar* [*yefe* *eynayim*]
boy.MS.SG.IND pretty.MS.SG.CS eye.FM.DUAL.IND
'a pretty-eyed boy' [Adapted from Hazout 2000:29]

CSAs take a form which is unique to adjectives appearing in these constructions:

(2) a. *yafa* 'pretty.FM.SG.IND[EPENDENT FORM]'
yefat 'pretty.FM.SG.C[ON]S[TRUCT FORM]'

b. **na'ara* [*yafa* *eynayim*]
girl.FM.SG.IND pretty FM.SG.IND eye.FM.DL.IND

They are always and obligatorily followed by a nominal, which I will be calling their "complement"; leaving this complement out results in ungrammaticality:

(3) **na'ara* [*yefat*]
girl.FM.SG.IND pretty.FM.SG.CS [Adapted from Hazout 2000:29]

Also, supplying the "wrong" complement results in ungrammaticality: only an inalienable possessum such as *eyes* can act as complements to a CSA:

(4) a. *na'ara* [*yefat* *eynayim*]
girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.IND
'a pretty-eyed girl' [Adapted from Hazout 2000:29]

b. **na'ara* [*yefat* *mexonit*]
girl.FM.SG.INDpretty.FM.SG.CS car.FM.SG.IND [Adpt. from *ibid.* 33]

The CSA complement is invariably understood as a possessum of the nominal outside the construct, a point further confirmed by the examples below:

(5) a. *na'ara* [*Sxorat* *se'ar*]
girl.FM.SG.IND black.FM.SG.CS hair. MS.SG.IND
'a black-haired girl'

b. *'erec* [*merubat* *'oxlusin*]
country. FM.SG.IND plentiful FM.SG.CS population.MS.SG.IND
'a country whose population is big' [Adapted from Hazout 2000: 29]

A further puzzle that the CSAs pose is which of the two nominals—the one outside the construct or the one inside (the complement)—it modifies: for instance, (5a) refers to the unique individual who is a girl with black hair; it does not refer to a woman whose skin is naturally dark, blackened by soot, or dressed in black, unless that same woman's hair happens to be black as well.[1] In this respect, the CSA appears to modify its complement. However, agreement facts suggest otherwise: for example, in (5a), the CSA agrees with the feminine SINGULAR noun outside the construct *na'ara* 'girl', rather than the feminine PLURAL noun *eynayim* 'eyes' within.[2]

In short, the following traits of CSAs call for an explanation: (i) the obligatory presence of the complement, (ii) the restriction on the complement, (iii) the possessive relation between the CSA's complement and the nominal agreeing with the CSA, and (iv) the apparent mismatch between the "semantic" and syntactic modification relations.

3 CSAs as Construct-State Elements and as Adjectives

In this section, I describe further properties of CSAs, with a view to determine which of these properties are to be attributed to the construction they appear in (or the construct form they take), and which are true to their nature (i.e. which they share with adjectives not in construct).

[1] Siloni (1998:6) and Hazout (2000:30).

[2] Adjectives in Hebrew agree in gender, number, and definiteness with the nominal they modify. See §3.3 for examples and discussion.

3.1 CSAs as Construct-State Elements

In §2, we saw that CSAs take on a distinct morphological shape. A parallel alternation appears in the nominal class, between nouns in their independent form and nouns in construct state:

(6) a. *na'ara* 'girl.FM.SG.IND'
na'arat 'girl.FM.SG.CS'

b. **na'ara* *Dina*
girl.FM.SG.IND Dina

c. *na'arat* *Dina*
girl.FM.SG.CS Dina 'Dina's daughter'

The parallel to the construct state of nominals is not merely a matter of morphology. Adjectives in construct obey the same structural restrictions as those attested with nouns in construct. First, construct-state adjectives cannot be separated from their complement by a modifier:

(7) a. *na'ara* [*yefat* *eynayim* *me'od*]
girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.IND very
'a girl whose eyes are very pretty'

b. **na'ara* [*yefat* *me'od* *eynayim*]
girl.FM.SG.IND pretty.FM.SG.CS very eye.FM.DL.IND
[Adapted from Hazout 2000: 31]

This is parallel to the facts regarding nouns in construct:

(8) a. *mexonit* *ha-* *na'ara* *ha-* *yafa*
car.FM.SG.CS the girl.FM.SG.IND the pretty.FM.SG.IND
'the pretty car of the girl'

b. **mexonit* *yafa* *ha-* *na'ara*
car.FM.SG.CS pretty.FM.SG.IND the girl.FM.SG.IND
[Adapted from Hazout 2000: 31]

Secondly, the definiteness of the entire construct phrase is determined by that of the complement to the element in construct:

(9) a. [*delet* [*beyt* [*morat* [*kita*]]]]
door house teacher class
'a door of a house of a teacher of a class'

b. [*delet* [*beyt* [*morat* [*ha-* *kita*]]]]
door house teacher the class
'the door of the house of the teacher of the class' [Hazout 1991]

c. **ha-* *delet* *beyt* *morat* *kita*
the door house teacher class

d. **delet* *ha-* *beyt* *morat* *kita*
door the house teacher class

e. **delet* *beyt* *ha-* *morat* *kita*
door house the teacher class

f. * *ha-* *delet* *ha-* *beyt* *ha-* *morat* *ha-* *kita*
the door the house the teacher the class

Each example in (9) consist of three constructs embedded one inside another. As shown in (9b), the presence of the definite article in the innermost DP *ha-kita* 'the class' determines the definiteness of each larger DP *morat ha-kita* 'the teacher of the class', *beyt morat ha-kita* 'the house of the teacher of the class', and *delet beyt morat ha-kita* 'the door of the house of the teacher of the class'. (9c-e) shows that the article may not appear on any of the construct-state nouns.

Similarly, the definiteness of the adjectival construct is determined by the presence of the article on the term following the construct-adjective, and may not appear on the adjective itself:

(10) a. *ha-* *na'ara* [*yefat* *ha-* *eynayim*]
the girl.FM.SG.IND pretty.FM.SG.CS the eye.FM.DL.IND
'the pretty-eyed girl'

b. *ha- na'ara [ha- yefat eynayim][3]
the girl.FM.SG.IND the pretty.FM.SG.CS eye.FM.DL.IND
[Adapted from Hazout 2000: 32]

3.2 CSAs are not Nominals in Construct

CSAs nevertheless distinguish themselves from nominals in construct; i.e. there are properties unique to construct-state ADJECTIVES. First, while the complement to CSAs is restricted to inalienable possessa, no such restriction is attested with complements to nominals in construct:

(11) a. ceva ha- eynayim
color.MS.SG.CS the eye.FM.DL.IND 'the color of the eyes'

b. ceva ha- mexonit
color.MS.SG.CS the car.FM.SG.IND 'the color of the car'
[Adapted from Hazout 2000:50]

Nor is it attested in relative clauses, which are arguably synonymous with the adjectival construct:

(12) ha- na'ara [Se ha- mexonit Sel-a yefa]
the girl.FM.SG.CS that the car.FM.SG.IND Sel-her pretty.FM.SG.IND
'the girl whose car is pretty' [Adapted from Hazout 2000: 33]

Also, while construct-state nouns can be embedded one inside the other (as seen in (9)), the term following the adjective in construct can neither be in construct state (13a) nor be in a "free genitive" construction (13b), another option for embedding nominal phrases within larger nominal phrases:

(13) a. *ha- na'ara [yefat [eyne Dina]]
the girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.CS Dina

b. *ha- na'ara [yefat eynayim Sel ha- more]
the girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.IND Sel the teacher
[Adapted from Hazout 2000: 35]

[3] My consultants found this example not as ungrammatical as the others.

3.3 CSAs are Adjectives

Finally, just like simple adjectives (14a-d), CSAs (14a'-d') show full agreement with a nominal, which, in the case of simple adjectives coincides with the nominal modified by the adjective:

(14) a. *na'ara* *yafa*
girl.FM.SG.IND pretty.FM.SG.IND 'a pretty girl'

a'. *na'ara* [*yefat* *eynayim*]
girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.IND
'a pretty-eyed girl' [Adapted from Hazout 2000:29]

b. *na'ar* *yafe*
boy MS.SG.IND pretty.MS.SG.IND 'a beautiful boy'

b'. *na'ar* [*yefe* *eynayim*]
boy MS.SG.IND pretty.MS.SG.CS eye.FM.DL.IND
'a pretty-eyed boy' [Hazout 2000:29]

c. *ne'arot* *yefot*
girls FM.PL.IND pretty.FM.PL.IND 'pretty girls'

c'. *ne'arot* [*yefot* *eynayim*]
girls.FM.PL.IND pretty.FM.PL.CS eye.FM.DL.IND 'pretty-eyed girls'

d. *ha-* *na'ara* *ha-* *yafa*
the girl.FM.SG.IND the pretty.FM.SG.IND 'the pretty girl'

d'. *ha-* *na'ara* [*yefat* *ha-* *eynayim*]
the girl.FM.SG.IND pretty.FM.SG.CS the eye.FM.DL.IND
'The girl pretty of eyes'

d''. **ha- na'ara* [*yefat* *eynayim*]
the girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.IND

d”’.	**na'ara*	[*yefat*	*ha-*	*eynayim*]
	girl.FM.SG.IND	pretty.FM.SG.CS	the	eye.FM.DL.IND

The nominal and the adjective agree in gender, as shown by the contrast between (14a/a’ and 14b/b’), as well as in number (compare (14a/a’) with (14c/c’)) and definiteness (compare (14a/a’) and (14d”/d”’) with (14d/d’)).

Thus construct-state adjectives pose an interesting puzzle in that they show three sets of properties: (i) properties they share with other elements in construct, and therefore clearly attributable to the construction itself (§3.1), (ii) properties distinct from other elements in construct, and thus unique to their status/form as CSAs, and (iii) properties they share with other adjectives, to be attributed to their continued affinity to that category. A complete analysis of adjectives in construct must account for these two aspects. I propose such an analysis below.

4 Proposal: Why CSAs are Different

The facts laid out in §§3.1-3.2 provide strong support for a distinction between CSAs and their independent-form counterparts, beyond the morphological distinction: CSAs demand an inalienable possessum as its complement. Assuming a maximally transparent mapping between syntax and semantics, we can interpret (into semantic terms) CSAs as functors taking inalienable possessa/relational nominals as their arguments.

What is then the result of that function-argument application? I claim that the answer is given by the syntax of the CSAs (discussed in §3.3): assuming that CSAs differ MINIMALLY from their independent-form counterparts, we can take the agreement facts at their face value and conclude that CSAs (or rather, the adjectival construct, see below) in fact modify the nominal OUTSIDE the construct. This hypothesis has the additional advantage of doing away with any extraneous device that would be necessary, were we to assume that the CSA modifies its complement. The answer to the question of what the construct as a whole denotes is a complex-adjective. I give below the semantic representation of such an adjective (15b), along with the representation of the CSA (15c) (I use GLOSSES of the Hebrew words, to facilitate exposition):

(15) a. $\mathrm{TR}(\text{eyes}) = \lambda u \lambda v[\text{eyes}(u)(v)]$

b. $\mathrm{TR}(\text{pretty.CS eyes}) = \lambda x[\text{pretty}(\iota y[\text{eyes}(x)(y)])]$

c. $\mathrm{TR}(\text{pretty.CS}) = \lambda R_{<eet>} \lambda x[\text{pretty}(\iota y[R(x)(y)])]$

The inalienable noun *eynayim* ‘eyes’ in (15a) is a two-place predicate: it takes an internal argument which denotes its possessor, and an external argument denoting its referent. The CSA *yefat* ‘pretty.CS’ in (15c) maps a relation (two-place predicate) such as *eynayim* ‘eyes’ into a one-place predicate (equivalent to the independent form *yafa* ‘pretty.IND’). Combining the CSA and the inalienable noun yields *yefat eynayim* ‘pretty.CS eye’ in (15b): a one-place

predicate which modifies an individual, who also happens to be the possessor of *eynayim* 'eyes'.

One puzzle is partially solved: intransitive nouns such as *mexonit* 'car' incur a type-mismatch when we try to apply the CSA to it:[4]

(16) a. TR(car) = λz[car(z)]

b. TR(pretty.CS car) = $\lambda R_{<eet>}\lambda x$[pretty($\iota y$[$\underline{R(x)(y)}$])]$\underline{(\lambda z[\text{car}(z)])}$

The restriction on embedding illustrated in (13) (repeated below) is also explained: introducing a possessor early on saturates the internal argument of the complement noun, thereby rendering it a one-place noun like *car*:

(13) a. **ha-* *na'ara* [*yefat* *eyne* *Dina*]
the girl.FM.SG.INDpretty.FM.SG.CS eye.FM.DL.CS Dina

b. **ha-* *na'ara* [*yefat* *eynayim* *Sel* *ha- more*]
the girl.FM.SG.INDpretty.FM.SG.CS eye.FM.DL.IND Sel the teacher
[Adapted from Hazout 2000: 35]

The account for the examples in (13) applies equally to the ungrammatical examples in (17), where resumptive pronouns appear in construct phrases:

(17) a. **ha-* *na'ara* [*yefat* *eyne* *-$\underline{ha}$*]
the girl.FM.SG.INDpretty.FM.SG.CS eye.FM.DL.CS -her

b. **ha-* *na'ara* [*yefat* *eynayim* *Sel-$\underline{a}$*]
the girl.FM.SG.INDpretty.FM.SG.CS eye.FM.DL.IND Sel-her
[Adapted from Hazout 2000: 35]

In this respect, construct phrases contrast with relative clauses, where resumptive pronouns are required:

(18) a. *ha-* *na'ara* [*Se ha-* *eynayim* **(Sel-$\underline{a}$)* *yafot*]
the girl.FM.SG.IND thatthe eye.FM.DL.INDSel-her pretty.FM.PL.IND
'the girl whose eyes are pretty' [Adapted from Hazout 2000: 33]

[4] Note that I am disregarding the type-shifting possibility for *mexonit* 'car', which would supply the necessary internal argument. I come back to this issue in the following section (§5).

b. *ha-* *na'ara* [*Se* *eyne* *-ha* *yafot*]
the girl.FM.SG.INDthat eye.FM.DL.CS -her pretty.FM.PL.IND
'the girl whose eyes are pretty' [Adapted from Hazout 2000:42]

The resumptive pronoun is required in this case, since the internal argument of *eynayim/eyne* 'eyes' has to be saturated for this latter to be an argument to *yafot* 'pretty', a one-place predicate, thereby forming a clause of type <t>. In this case, *yafot* 'pretty' does modify *eynayim/eyne* 'eyes', and not *na'ara* 'girl', as we see from the PLURAL agreement.[5]

The proposed analysis also predicts, correctly, that any modification to the construct phrase that does not affect the argument structure of the complement noun (such as conjunction) is grammatical:

(19) *ha-* *na'ara* [*Sxorat* *ha-se'ar* *ve* *ha-* *eynayim*]
the girl.FM.SG.IND black.FM.SG.CS the hair and the eye.FM.DL.IND
[Hazout 2000: 40]

I have now explained two thirds of the problem: (i) since the CSA's internal argument is a relation, non-relational nouns cannot serve as its argument, and the possessive relation between the noun outside the construct and the (referent of) the complement is thus mediated, (ii) the construct as a whole, headed by the CSA, is the equivalent of a simplex adjective, and therefore behaves like one in terms of agreement and semantics.

In doing so, I have assumed a maximally straightforward relation between morphology and semantics—the allomorphy of the CSA signals the distinct semantics of this latter—and between syntax and semantics—agreement takes place between a nominal and an adjective modifying it.

Semantics does not play a great role in the remaining third of the problem (properties of the construct, laid out in §3.1); according to Siloni (1998), these properties are in fact attributable to the prosody of Hebrew. I follow her proposal, which convincingly explains the puzzles discussed in this paper, as well as numerous otherwise-baffling facts. I only give a brief tasting of Siloni's account below; the eager reader is referred to her paper.

The restriction on the position of the CSA's modifier (illustrated in (7) and repeated below) has nothing to do with semantics: *me'od* 'very' is a predicate modifier, and as such does not affect the argument structure of the relation *eynayim* 'eyes'). The ungrammaticality of (7) has to do with the fact that the CSA is prosodically defective, and as such dependent on its complement for stress. A prosodic word intervening between the CSA and its complement severs the contiguity necessary for stress assignment:

[5] Many thanks to Barbara Partee (p.c.) for alerting me to this fact.

(7) a. *na'ara* [*yefat* *eynayim* *me'od*]
girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.IND very
'A girl whose eyes are very pretty'

b. **na'ara* [*yefat* *me'od* *eynayim*]
girl.FM.SG.IND pretty.FM.SG.CS very eye.FM.DL.IND

This is a property true of any element in construct, regardless of its category. In PHONOLOGICAL terms, then, the CSA is not a head; rather, its complement acts as the head. We see here that we cannot expect maximal parallelism between all modules; at the very least, phonology can have a structure contradicting semantics.

What of the element that may come between the term in construct and its complement? The agreement facts in (14) suggest that the CSA is the syntactic head of the construct phrase: as shown by (14d'/d"/d"'), the occurrence of *ha-* on *eynayim* 'eyes' is entirely dependent on its presence on *na'ara* 'girl', the noun which *yefat* 'pretty' modifies and agrees with. Yet the definiteness PREFIX *ha-* appears AFTER the CSA. Why? Siloni (1998) attributes this to *ha-*, a prefix with a tendency to attract stress to its stem. Were *ha-* to attach to the CSA, it would wrongly attract stress to the CSA, which has to remain unstressed.

(14) d'. *ha-* *na'ara* [*yefat* *ha-* *eynayim*]
the girl.FM.SG.IND pretty.FM.SG.CS the eye.FM.DL.IND
'The girl pretty of eyes'

d". **ha- na'ara* [*yefat* *eynayim*]
the girl.FM.SG.IND pretty.FM.SG.CS eye.FM.DL.IND

d"'. **na'ara* [*yefat* *ha-* *eynayim*]
girl.FM.SG.IND pretty.FM.SG.CS the eye.FM.DL.IND

We have thus an explanation for all thirds of the problem. Ruling out the type-shifting possibility of alienable possessa calls for more justification. I now turn to that issue.

5 Inalienable Possessa

In this section, I entertain a number of competing hypotheses ruling out the type-shifting possibility of alienable possessa in constructs.

5.1 A Syntactic Alternative

Inalienable possessa such as *eynayim* 'eyes' are the only nouns with a possessor argument in the original lexical representation. The rash response is to rule out the possibility of type-shifting altogether, and thus force alienable possessa such as *mexonit* 'car' to introduce a possessor argument slot syntactically. Assuming further that the complex-predicate formation in constructs is via incorporation, and adopting Baker's (1987) view of incorporation, we can argue that an alienable possessum cannot be complement to the CSA, since it forces the introduction of a syntactic object, thereby blocking incorporation.

Borer (1988), however, argues that constructs are distinct from lexical compounds, which are formed through incorporation, in various respects. First, as we saw above, the interpretation of constructs is fully compositional, in contrast with that of lexical compounds, which is often idiomatic:

(20) a. *beyt* *xolim*
house.MS.SG.CS patient.PL.IND 'hospital'

b. *gan* *yeladim*
garden.MS.SG.CS child.MS.PL.IND 'nursery school'
[Hazout 2000: 37-38]

She takes the following contrast as further counter-evidence to the "construct as incorporation" hypothesis:

(19) *ha-* *na'ara* [*Sxorat* *ha-se'ar* *ve* *ha-* *eynayim*]
the girl.FM.SG.IND black.FM.SG.CS the hair and the eye.FM.DL.IND
'the girl whose hair and eyes are black' [Hazout 2000: 40]

(21) **beyt* *ha-sefer* *ve* *ha-* *xolim*
house.MS.SG.CS the book.MS.SG.IND and the patient.PL [Hazout 2000:39]

Conjoined complements, which are allowed in constructs (19) are disallowed in lexicalized compounds (21).

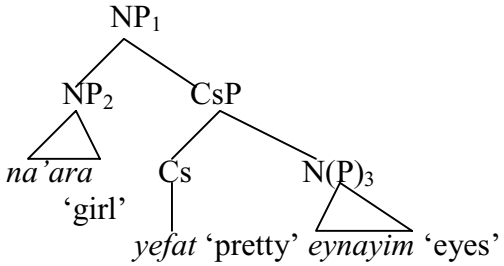
The differences between constructs and lexicalized compounds have been shown beyond doubt; yet it is quite conceivable that there could be different kinds of incorporation, each with different restrictions and properties. Consider the case of English compounds, which are perfectly acceptable despite the incorporation of conjoined elements:

(22) a. a bread-and-butter issue

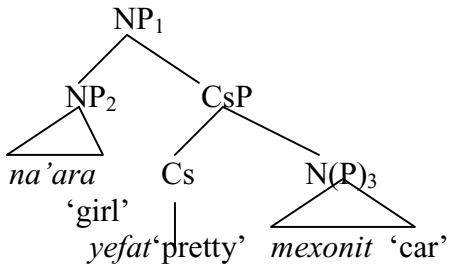
b. a song-and-dance band [Partee, p.c.]

A syntactically more prudent (but semantically, rather bold) move is to assume a syntactic reflex for the semantic type-shifting: it is possible that the extra argument slot introduced via type-shifting is not of the same syntactic type as the one in inalienable nominals. More specifically, whereas the possessor argument in an inalienable noun is an ANAPHOR (Koenig 1999), the (newly-created) possessor argument slot in an alienable noun could be a PRONOUN, which cannot be bound by the nominal modified by the construct.

(23) a.



b.



In both cases, *na'ara* 'girl' c-commands the possessor argument in $N(P)_3$: in (23a) that is grammatical, given the anaphor status of the possessor argument; in (23b), however, it results in ungrammaticality, since the possessor argument of *mexonit* 'car' wants a referent distinct from that of *na'ara* 'girl'; as a consequence, there is no semantic link between NP_2 and the construct phrase:

(24) a. $\text{TR}(\text{pretty.Cs}) = \lambda R_{<eet>}\lambda x[\text{pretty}(\iota y[R(x)(y)])]$

b. $\text{TR}(\text{car}) = \lambda u\lambda v[\text{car}(u)(v)]$ (← type-shifting)

c. $\text{TR}(\text{pretty.Cs car}) = \lambda R_{<eet>}\lambda x[\text{pretty}(\iota y[R(x)(y)])](\lambda u\lambda v[\text{car}(u)(v)])$

$= \lambda x[\text{pretty}(\iota y[\lambda u\lambda v[\text{car}(u)(v)](x)(y)])]$

$= \lambda x[\text{pretty}(\iota y[\text{car}(x)(y)])]$

Semantically, the referent of *na'ara* 'girl' would be supplied as an argument to the complex predicate in (24c); however, a conflict arises since the possessor cannot co-refer with it. This is a situation similar (although not identical[6]) to the ill-formed phrase *John who Bill came*.

[6] Since R-expressions like *Bill* resist coreference even more vehemently than pronouns.

Further consequences of this proposal (that there is a syntactic operation corresponding to semantic type-shifting) remain to be put to test.

5.2 Inalienable Possessa as Properties

Well as the proposal in the previous subsection might fare, it should find the following data to be quite a challenge:

(25) * *yalda yefat 'axot/'em/savta*
girl beautiful sister/mother/grand-mother [Siloni 1998:5]

The obvious, but not so attractive, way out is to stipulate that kinship is alienable in some respects. Yet doing so does not really give an explanation why they should be different, or even, HOW they should. And it appears that an explanation is necessary, in light of the systematicity of this kinship-inalienable divide across languages. For one, French has constructions that closely parallel the Hebrew ones, with the same restrictions:

(26) a. *une* *fille belle* *de peau*
a girl beautiful of skin

b. **une* *fille belle* *de voiture*
a girl beautiful of car

c. **une* *fille belle* *de soeur/mère/grand-mère*
a girl beautiful of sister/mother/grand-mother [Siloni 1998:13]

And albeit less closely, we see similar restrictions in the Korean multiple accusative construction:

(27) a. *John-i* *Mary-lul* *son -ul* *ttayli-ess-ta*
John-NOM Mary-ACC hand-ACC hit-PST-DECL
'John hit Mary on the hand.'

b. **John-i* *Mary-lul* *emeni -lul* *ttayli-ess-ta*
John-NOM Mary-ACC mother-ACC hit-PST-DECL
[Kim, M.-J. 2000: 14]

The intuition behind the divide is very clear, as Partee (p.c.) points out:

> I think this is related to the question of "which noun does the adjective modify?" … Pretty eyes are at least part of what can make a person pretty, but a pretty car doesn't make you pretty in any sense.

There are various ways to formalize this intuition. One is to adopt Baker's (1999) proposal about Mohawk external possession constructions, where only body part nouns are allowed. Baker (1999) attributes the exclusive behavior of body part nouns to the fact that their referent and their possessors are non-distinct. This allows for coindexing of arguments without any need to create an extra argument slot: the body part noun and the predicate create a reflexive predicate, the argument of which is the possessor (see Koenig (1999) for a different formulation of the same idea).

This explains why kinship nouns, although clearly inalienable (at least in a low-tech traditional world), cannot participate in the construction: it is very hard to regard a kinship noun to be coindexed with its "possessor" (unless we assume an affectedness relation).

An alternative way is to extend the proposal in §4: the CSA is looking for a relational predicate (rather than an individual-type). The inalienable possessa do not denote entities (are not of type <e>) but properties, whereas a non-trivial type-shifting is required to turn a kinship term, which inherently denotes an entity[7]) into a relational predicate (cf. Kolliakou 1999; Siloni 1998:10f[8]; Vergnaud and Zubizarreta 1992 about inalienable possessions being "types", as opposed to "tokens".) This, in turn, extends to Borschev's (2000) idea that complements to CSAs denote dimensions (he calls them "parameters") along which the adjective is evaluated: individual-denoting types cannot serve as dimensions, while property-denoting types can.

6 Concluding Remarks

CSAs in Hebrew may at first appear a baffling problem, because of their multifaceted behavior. However, the CSAs' diverse properties unravel upon close scrutiny: once we teased out the properties of CSAs due to the construction, those owing to the adjective construct form, and those common to CSAs and non-construct adjectives, we could take up and analyze each of those groups of properties individually. I have followed Siloni (1998) in the account of the properties of elements in construct. As for the properties unique to CSAs, I have attributed them to the distinct semantic type of CSAs correlating with the allomorphy: CSAs are functions seeking relation-type predicates to turn into a complex predicate. The fact that relations, not individual types, fit their argument type explains the restriction on the CSA's

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[7] It is of possible relevance that these are often the nouns used without the article in languages where bare nouns are highly marked.

[8] Siloni (1998:12) convincingly shows that the article does NOT render the inalienable noun referential: the inalienable noun cannot bind a pronominal:

(i) *ha-yalda yefat ha-'eynayimi higi'a. *heni hayu šxorot va-'acuvot.*
the-girl beautiful the-eyes arrived. they were black and-sad

complement to inalienable nouns. Once the CSA's first argument (the relation) is saturated, the CSA is like other adjectives, and as such agrees in gender and number with the noun it modifies—the nominal outside the construct.

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