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AMOUNT DEFINITES*

ABSTRACT

Our project in the paper is twofold. First, we present an analysis of weak definites in general. Second, we present an analysis of the Semitic state-inflection and its role in determining strong and weak definiteness, and introduce a novel type of weak definites which we call *amount definites*. Adopting the choice-function analysis of (in)definiteness, we analyse weak definiteness as the application of a type-shifted definite determiner to a relational noun. This application results in the reinterpretation of the relational noun as functional. In Hebrew, weak definites often take the form of noun phrases headed by a noun marked with construct-state inflection; such a noun is interpreted as relational. In colloquial Hebrew, the type-shifted definite determiner used in the formation of weak definites may take the form of a numeral (or other amount nouns) marked with emphatic-state inflection. We name weak definites headed by emphatic-state amount nouns *amount definites*.

KEYWORDS

Amount definite, weak definite, choice-function, relational noun, functional noun, amount noun, state inflection, absolute state, construct state, emphatic state, type-shift, Semitic, Hebrew, colloquial Hebrew.

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1. Introduction

The paper introduces a novel type of weak definites, which we call *amount definites*. The aim of the paper is to reformulate Poesio's original analysis of weak definites in terms of the choice-function analysis of (in)definiteness, and to explore its consequences by explaining the properties of amount definites.

Weak definites are noun phrases which are definite in form, yet do not presuppose a unique referent, unlike regular definites. Following Poesio (1994) and Barker (2005), we view weak definite noun phrases as crucially involving relational nouns, and we extend this approach to the non-possessive weak definites discussed by Carlson and Sussman (2005). We draw attention to particular weak definites not yet found in the literature which are headed by *amount nouns*, including numerals and other measure nouns. Weak definites constructed from amount nouns will be called *amount definites*.

The following are (attested) examples of amount definites in colloquial Modern Hebrew. In each case, the bolded noun phrase is interpreted like an indefinite, though it is definite in form and may be interpreted as definite in other environments: *the three children*, *the five* (or *the hundred*) *Shekels*, *the glass of wine*:

- (1) ha-mišpaxot im **ha-šloša yeladim**
the-families with **the-three children**
'the families with three children'
- (2) ha-alut le-mišpaxa lo overet et **ha-xamiša šqalim**
the-cost per-family NEG exceed ACC **the-five Shekels**
'The cost per family does not exceed five Shekels.' (*Shekel* is a currency unit)
- (3) crixat ha-alkohol šelo hi bisvivot **ha-kos yayin** be-yom
consumption the-alcohol his is about **the-glass wine** in-day
'His alcohol intake is about a glass of wine a day.'
- (4) ha-be'ayot še- nitqalim bahem
the-problems that one faces them
kše-xosxim et **ha-me'a šqalim** al ixsun
when one saves ACC **the-hundred Shekels** on storage
'the problems one faces when one saves one hundred Shekels for storage.'

Amount definites are related to *amount relatives* (Carlson 1977), illustrated in (5) below. In (5), one finds definiteness of the amount coupled with the indefiniteness of the substance, which characterizes (1)-(4).

- (5) It will take us the rest of our lives to drink **the champagne that they spilled that evening**. (Heim 1987: 40)

The structure of the paper is as follows. We introduce weak definites in section 2 together with our analysis. It is crucial to our account that weak definites are headed by relational nouns. In Hebrew, relational nouns are idiomatically expressed in an inflectional form called *the construct state*. Section 3 introduces *state* inflection in general. Section 4 explores the connection of the

construct state to relational nouns, and section 5—its connection to the expression of definiteness and weak definiteness in Hebrew. In section 6 we turn to amount definites in colloquial Hebrew. We compare their properties to those of definite noun phrases where the amount noun is in the construct state form. We end with a semantic analysis of amount definites as weak definites.

2. Weak definites

Weak definites are noun phrases (NPs) which are definite in form yet do not presuppose unique reference, unlike regular (strong) definites. Two subclasses of weak definites have been brought up so far in the literature. One involves possessive constructions, analysed by Poesio (1994) and Barker (2005). The other subclass is non-possessive, and was analysed by Carlson and Sussman (2005).

The term *weak definites* and the original examples are due to Poesio (1994), who discussed a construction of possessive NPs with an indefinite possessor and a definite head (where the definiteness of the head is expressed either by the determiner *the* or by the Saxon genitive). Some examples are shown below:

- (6)
 - a. John got these data from **the student of a famous linguist**.
 - b. My aunt got attacked by **the parent of a student** whom she had failed.
 - c. A bomb exploded outside **the office of an American corporation**.
 - d. Bill found **the wedding photo of a same-sex couple**.
 - e. He showed me **the picture of a veiled woman** holding a wounded relative in her arms.
- (7)
 - a. John got these data from **a famous linguist's student**.
 - b. My aunt got attacked by **a student's parent**.
 - c. A bomb exploded outside **an American corporation's office**.
 - d. Bill found **a same-sex couple's wedding photo**.
 - e. He showed me **a veiled woman's picture**.

Poesio shows that despite the definite form of the possessive constructions in such examples, they do not presuppose uniqueness.¹ It is not presupposed that the linguist in (6a) has a unique student or that the student in (6b) has a unique parent, etc. Indeed, these constructions appear in environments typical of indefinite NPs. Like indefinites, such as in (8), and unlike strong definites in (9), which are not felicitous discourse-initially, weak definites can introduce new participants into the discourse, as in (10):

- (8)
 - a. I met a student yesterday.
 - b. Mary bought an office.

1. We leave aside the strong reading, which these examples also have, where the definite NP presupposes uniqueness, as it is already familiar/salient in the discourse.

- (9) a. #I met the student yesterday
 b. #Mary bought the office.
- (10) a. I met the student of a famous linguist yesterday.
 b. Mary bought the office of an American corporation.

Like other weak NPs, they appear in the existential construction:

- (11) a. There is **a famous linguist's student** waiting for you in the hall.
 b. There was **a student's parent** in the classroom.
 c. There is **an American corporation's office** just around the corner.
 d. There was **the wedding photo of a same-sex couple** on his desk.
 e. In today's paper there was **the picture of a veiled woman** holding a wounded relative in her arms.

We may ask whether weak definites have any characteristics of definite NPs. (12a) below shows that, like definites, they allow the partitive construction, which is not the case for indefinites, *cf.* (12b). But notice that the examples in (12) are plural, and accordingly the definite in (12a) might actually be a strong definite:

- (12) a. Yesterday I spoke to two of the students of a famous linguist.
 b. *Yesterday I spoke to two of several students of a famous linguist.

Poesio (1994), and later also Barker (2005), note that there are also examples of weak definites with a definite possessor. There is no uniqueness presupposition in these examples either; it is not presupposed that the road has a single side or the kitchen a single corner etc:

- (13) It is safer to mount and dismount towards **the side of the road**, rather than in the middle of traffic.
- (14) It took him several minutes to reach the refrigerator nestled in **the corner of the kitchen**.
- (15) The baby's fully-developed hand wrapped itself around **the finger of the surgeon/ the surgeon's finger**.
- (16) A secondary school student or **the parent of the student** may request that the student's name, address and telephone listing not be released.
- (17) Tell **the employee of the store** what you are looking for and she will provide you with options.

A different class of weak definites, with no possessors whatsoever, was brought up by Carlson and Sussman (2005):

- (18) Mary went to **the store**.
- (19) I'll read **the newspaper** when I get home.

- (20) Open **the window**, will you please?
- (21) Fred listened to the Red Sox on **the radio**.
- (22) Let's take **the elevator**.

Carlson and Sussman demonstrate that these definites differ from strong definites. For example, whereas strong definites have reference that carries over in VP-ellipsis, *i.e. strict identity*, in the case of weak definites there is no requirement of referential identity in VP-ellipsis, and *sloppy identity* is possible. For instance, in (23), both people need to have heard about the same riot, but not on the same radio:

- (23) Mary heard about the riot on **the radio**, and Bob did, too.
(Carlson *et al.* 2006: 17)

Sloppy identity in VP-ellipsis characterizes indefinites in general, and also the possessive weak definites discussed by Poesio and by Barker, such as those in (6-7) and (13-17) above.

Possessive examples with indefinite possessors, like the ones in (6-7), are closest to indefinite NPs in interpretation. They appear in existential constructions, as was shown in (11) above, whereas the other examples do not:

- (24) a. #There is the surgeon's finger in the picture.
b. #There is the elevator.

The examples in (24) are infelicitous with an existential reading, and can only be given a "list" interpretation (Milsark 1977). On the other hand, the examples with indefinite possessors did give rise to an existential interpretation in (11). This is due to the lack of existential presuppositions of the possessors in (6-7), which contrasts with the existential presupposition of the definite possessors in (13-17) and the implicit context to which the weak indefinites are related in (18-22).² This difference in existential presuppositions is at the basis of the difference in the felicity of the existential construction (de Jong 1987).

Despite the difference in existential presuppositions of the possessors in the different types of examples, there is no difference in the existential presuppositions of the possesseees. All these possesseees equally presuppose existence. The existence presupposition is satisfied for each context of (13-22) on

2. Note that there are conditions on the particular objects denoted by the nouns, and thus it may not be enough to analyse the weak indefinites in (18-22) as incorporated predicates, as Carlson and Sussman do. For example, in the context of the question 'How do you know Obama dislikes Netanyahu?' an answer such as (i), in Hebrew, has to invoke a local newspaper, not just any newspaper:

(i) ze katuv b-a-iton
'It is written in the newspaper.'

the basis of general knowledge of the lexicon and the world; *e.g.* it is normally presupposed that roads have sides, kitchens have corners, surgeons have fingers and that radios, newspapers, stores, windows, etc. are found within any discourse situation. As for (6-7), existence is easily accommodated (globally, in the terminology of Heim 1983).

The puzzle of weak definites is that despite the existence presuppositions, there is no uniqueness presupposition. If there is no uniqueness in a weak definite, it is unclear how it can be expressed as a definite.

We follow Poesio in analysing the head NP in weak definites such as (6-7) as a relation, whose denotation yields a set of values for each possessor. In (6a), for example, *student* is interpreted as a relation, which, when applied to some value of an indefinite linguist, returns a value which is also variable, and moreover varies with the value of the linguist. Hence, the reference of the possessee is not unique. But, according to Poesio, definiteness is satisfied by the dependence (anchoring) of the value of a relational noun on that of its possessor.

We adopt the use of choice functions to determine the denotations both of indefinite and definite noun phrases, as proposed by von Stechow (2004) and Schlenker (2004). Each indefinite noun phrase in the discourse is interpreted by a new choice function $\mathcal{F}_i$, which accounts for the fact that each occurrence of *a student* in the discourse denotes a different individual. Definite noun phrases on the other hand are interpreted by a single choice function $\mathcal{F}_C$ per context, which accounts for the fixed denotation of *the student* in a given discourse. The uniqueness in the latter case follows from the fact that $\mathcal{F}_C$ always selects the most salient individual with the relevant property:

(25)	a.	a	$\leadsto$	$\lambda P. \mathcal{F}_i[\lambda y. P(y)]$	i is a new index
	b.	the	$\leadsto$	$\lambda P. \mathcal{F}_C[\lambda y. P(y)]$	$\mathcal{F}_C$ selects the most salient P-individual in C
	c.	the _R	$\leadsto$	$\lambda R. [\lambda x. \mathcal{F}_{C,x}[\lambda y. R(y, x)]]$	$\mathcal{F}_{C,x}$ selects a R-individual in C depending on x

In the case of weak definites, we propose that the ordinary interpretation of *the* from (25b) is type-shifted so that it applies to relations rather than to properties. Thus *the_R* in (25c) turns each relational noun into a functional noun, an idea already found in Dobrovie-Sorin (2001). Moreover, salience in C is replaced by dependence (anchoring) to the possessor x in C

For example, the phrase *the student of a famous linguist* of (6a) is interpreted by combining the relation *student* with the functor *the_R* whose role it is to shift relational interpretations to functional interpretations in the following manner:

(26)	a.	student	$\leadsto$	$\lambda x. [\lambda y. \text{student}(y, x)]$
		the _R	$\leadsto$	$\lambda R. [\lambda x. \mathcal{F}_{C,x}[\lambda y. R(y, x)]]$
	b.	the _R -student	$\leadsto$	$\lambda x. \mathcal{F}_{C,x}[\lambda y. \text{student}(y, x)]$

Student is a relation and it yields several individuals per possessor x . the_R applies to this relation in (26b) and transforms it into a function. The function the_R -*student* then applies to an individual x which is a famous linguist and yields the student of this individual which is selected by the contextual function $\mathcal{F}_{C,x}$.

The same account can be extended to examples with definite possessives such as examples (13-17). The only difference is that in these examples, the possessor is unique. Here too there are relational nouns such as *side*, *corner*, and body parts such as *finger*, *leg*, *arm*, etc., where the object standing in the relation to the possessor is not unique. The use of the definite article is again justified by the contextual function $\mathcal{F}_{C,x}$ which selects one of the various referents relative to the possessor x .³

The same account can also be extended to non-possessive examples such as those in (18-22). The nouns here are relational nouns such as *store*, *newspaper*, *radio*, *hospital*, *train*, etc., describing objects which have a particular conventional use per location x . These nouns are indeed interpreted as weak definites only in sentences involving this characteristic use (Carlson and Sussman 2005). The object fulfilling this characteristic use in a given context is not unique in a given location x , but a unique object is selected relative to x by $\mathcal{F}_{C,x}$. Therefore the use of a definite expression is justified here as well.

Our account distinguishes between relational/functional nouns, where the anchoring to a possessor/user licenses a definite form, and nouns modified by adjuncts. Unlike the examples in (6-7) and (13-22) above, the bolded NPs in the examples (27-30) can only be interpreted as strongly definite, *i.e.* presupposed to be unique:

- (27) Call their attention to **the book on the table**.
 (28) I remember **the walk with her on a clear day**.
 (29) The truck was involved in **the accident near a local intersection**.
 (30) What is **the small green leaf below a flower's petal**?

3. Notice that body parts have to be visible and distinguishable in order to be included in the domain of $\mathcal{F}_{C,x}$. We find such contrasts in Hebrew between (a) and (b) in the following:

(i) a. hu šavar et ha-šen	b. # hu šavar et ha-xulya
‘He broke the tooth.’	‘He broke the vertebra.’
(ii) a. hu xatax et ha-ecba	b. # hu xatax et ha-se’ara
‘He cut the finger.’	‘He cut the hair.’

What counts as visible/distinguishable seems to be language dependent, *e.g.* in French the contrast is not exactly isomorphic:

- (iii) Jean s’est cassé la jambe/ # la dent/ # le cheveu (Beyssade 2012)
 ‘Jean broke the leg/ # the tooth/ # the hair’

A relational denotation is required for a noun to be in the domain of the operator the_R . We return to the characterization of relational nouns in section 4 below, but for now we illustrate the extensional nature of the_R . Consider the contrast in example (31) below. This example involves the noun *picture* which can be interpreted either as an extensional or an intensional relation:

- (31) a. He showed me **the picture of a veiled woman** holding a wounded relative in her arms.
 b. He showed me **a picture of a veiled woman** holding a wounded relative in her arms.

In (31a), leaving aside the strong definite reading and concentrating on the weak reading, the noun *picture* is only interpreted as an extensional relation, *i.e.* as relating a particular individual to her picture. We claim that this is so since the_R , which yields a weak definite, is only defined for extensional relations.

On the other hand, in (31b), the noun *picture* is not necessarily extensional, *i.e.* it does not necessarily relate an actual woman to her picture. Instead it may be interpreted as intensional, with the noun phrase *a veiled woman* interpreted *de-dicto* relative to it. Under this reading, the picture depicts an imaginary woman-concept represented by the artist. Such an interpretation of *a veiled woman* in (31a) is not possible under the weak definite reading, and is only possible under the strong definite reading.

Our analysis of weak definites relies on the determiner the_R , realized in English as *the* or as *'s*, which turns a relational noun into a function. We now turn to the expression of relational nouns in Hebrew, where they typically appear in a particular morphological form, the *construct state*, a form which has special properties with respect to definiteness interpretation. In the next session, we describe the expression of definiteness in Hebrew and its relationship to the morphological inflectional category of *state*.

3. State inflection and definiteness in Modern Hebrew

The definite article *ha-* of Modern Hebrew (MH) historically originates as an inflectional prefix marking the *emphatic state* of the noun (ES), in contrast to the *absolute state*, which lacks this prefix. Both differ from a third form of the noun, the indeterminate *construct state* (CS) which does not overtly mark the contrast between emphatic and absolute. These forms are part of the Central Semitic nominal inflection system described by traditional Hebraists as early as the Renaissance, *e.g.* Reuchlin (1506), Buxtorf (1651) and others, whereby all nouns

are inflected for the category of *state* (in addition to familiar nominal categories such as *gender* and *number*).⁴

(32)	a.	absolute state	<i>e.g. simla</i>	‘gown’
	b.	emphatic state (ES)	<i>e.g. ha-simla</i>	‘ES-gown’
	c.	construct state (CS)	<i>e.g. simla-t</i>	‘gown-CS’

Both absolute state and ES nouns have an inherent emphaticity value: [–emph] for the absolute state, and [+emph] for the ES. CS is the form of the noun which is undetermined for emphaticity, and is marked neither as [+emph] nor as [–emph]. Thus, semantically speaking, the CS is unmarked.⁵

(33)	a.	absolute state	[–emph]
	b.	emphatic state (ES)	[+emph]
	c.	construct state (CS)	

The CS noun is assigned an emphaticity value within the syntactic derivation through attachment to its *annex* (typically a possessor) in a construction called *construct*. The feature [±emph] of the annex serves to provide an emphaticity value to the construct head as well, *i.e.* to the CS noun.

The [+emph] feature of the ES noun is typically interpreted as definite, as in (34a), and the [–emph] feature of the absolute noun as indefinite, as in (35a). In the construct, the same feature is shared by the CS-head noun as well. This results in a [+emph] interpretation of the CS-head in (34b), and a [–emph] interpretation in (35b):⁶

4. The morphological term *emphatic* is a Semiticists’ term marking a particular value of the inflectional *state* of a noun, and is unrelated to the phonological term *emphatic* in the sense of *stressed*.

5. We assume names and pronouns are inherently emphatic. Note also that the default form of the noun is taken to be the absolute state, and we therefore do not gloss absolute state nouns with a state specification.

6. We predict that adjacency plays a central role in the transmission of emphaticity to the CS-head. Indeed, it is well known that there can be no intervening constituent between the head and the annex. We add here an additional argument to that effect: when the annex is a conjunction, it is the [±emph] value of the first conjunct of the annex which determines the value of the emphaticity feature of the CS-head:

(i) hem ma’asiqim (*et) ma’arax anšey mexirot ve ozrey-hem
 they employ (*ACC) layout-CS people-CS sales and assistants-theirs
 ‘They employ a layout of sales people and their assistants.’

In (i), the annex *sales people and their assistants* consists of a conjunction of which the first is a [–emph] construct *sales people*, and thus disallows the accusative marker *et* found only with definite NPs. It turns out that the [+emph] value of the second conjunct of the annex (*ozrey-hem*, marked as [+emph] by the possessive pronominal clitic *-hem*) is irrelevant for the licensing of *et*. Thus it is the conjunct adjacent to the CS-head which determines its defi-

- (34) a. ha-yalda
 ES-girl
 [+emph]ha-yalda ‘the girl’
 b. simlat ha-yalda
 gown-CS ES-girl
 simlat [+emph]ha-yalda ‘the gown of the girl’
- (35) a. yalda
 girl
 [–emph]yalda ‘a girl’
 b. simlat yalda
 gown-CS girl
 simlat [–emph]yalda ‘a gown of a girl’

Nouns in the absolute or emphatic state must lack an annex, as they do in (36a–b), assuming emphaticity can only be determined once. In contrast, nouns in the construct state must have an annex (usually a possessor), as shown by the contrast in grammaticality between (36c) which lacks an annex and (36d):

- (36) a. soxaxnu al **simla**
 we-spoke of gown
 ‘We spoke of a gown.’
 b. soxaxnu al **ha-simla**
 we-spoke of ES-gown
 ‘We spoke of the gown.’
 c. *soxaxnu al **simlat**
 we-spoke of gown-CS
 d. soxaxnu al **simlat** **ha-yalda**
 we-spoke of gown-CS ES-girl
 ‘We spoke of the girl’s gown.’

Moreover, nouns in the construct state cannot be marked as emphatic, since this would yield double emphaticity marking:⁷

- (37) soxaxnu al (*ha-)simlat ha-yalda
 we-spoke of (*ES-)gown-CS ES-girl
 ‘We spoke of the girl’s gown.’

The correlation between the ES form and definiteness is not a complete overlap, a problem which has generated a vast literature on the construct state

nitiness. Note that the CS-head itself may be a conjunction of two CS-nouns. The conjunction is adjacent to the feature [+emph], and each conjunct inherits that feature:

(ii) menahaley ve ovdey ha-xevra
 managers-CS and workers-CS ES-firm
 ‘The managers and workers of the firm.’

7. We thus derive the well-known restriction that *ha-* is never prefixed to a CS noun.

aimed at theoretical accounts of the discrepancies between emphaticity (*i.e.* *ha-* inflection) and definiteness: Borer (1984, 1996, 1999), Ritter (1988), Englehardt (1998, 2000), Dobrovie-Sorin (2000, 2003), Danon (2001, 2008a, 2010), Heller (2002), Siloni (2003), Shlonsky (2004), and others.

We believe that the relation between emphaticity and definiteness is basically very simple, both historically and in MH. Emphaticity is an inflectional category of nouns, whereas definiteness is a semantic property of NPs. This is illustrated by the ES-noun in the following example, *i.e.* *ES-girl*, which is not definite, but rather heads a definite NP:

- (38) *ha-yalda* *ha-gvoha*
 ES-girl ES-tall
 ‘the tall girl’

A second illustration for the different domains of emphaticity and definiteness is illustrated by the ES-noun in the following example, *i.e.* *ES-bride*, which, though emphatic, is only definite in reading (a), but not in reading (b):

- (39) *simlat* *ha-kala*
 gown-CS ES-bride
 a. ‘the bride’s gown’ *ES-bride* is definite
 b. ‘the bridal gown’ *ES-bride* is not definite

In (39), the difference in the definiteness of *ES-bride* in (39a) vs (39b) stems from the fact that *ES-bride* heads an NP in (39a) but does not head any NP in (39b). The structures are as follows:⁸

- (40) a. NP_{Def}
 / \
 N NP_{Def}
 | |
 gown-CS N_{Emph}
 |
 ES-bride
 ‘the bride’s gown’
- b. NP_{Def}
 |
 N_{Emph}
 / \
 N N_{Emph}
 | |
 gown-CS ES-bride
 |
 ‘the bridal gown’

In (40a), *ES-bride* constitutes an NP which is the definite possessor. Accordingly, (40a) presupposes the existence and uniqueness of a bride in the context. But in (40b), *ES-bride* is a noun modifier of the compound’s head. It is not a NP, and thus, in (40b), the bride is not unique nor even presupposed to exist in the context.

8. As shown in examples (34)–(35) above, a CS head shares the Emph feature of its annex. A NP with an Emph-marked head is marked as Emph as well, but, for NPs, we replace the subscript *Emph* by *Def*.

The example we now turn to has been given as an example of the seemingly indirect relation between emphaticity and definiteness (Borer 1988, Dobrovie-Sorin 2000). Yet it can be shown that this type of example does not differ from the previous example in (39). We call such examples in their (a) interpretation *amount constructs*.

- (41) kos ha-yayin
 glass-CS ES-wine
 ambg: (Rosén 1957, Rothstein 2009)
 a. 'the glass of wine'
 b. 'the wine glass'

Here it seems that in both readings, not just in the compound reading, the emphatic state noun *ES-wine* might not be a definite NP. In reading (a), the measured noun *ES-wine* is translated to English as the bare noun *wine* which is not a definite argument.

But in our view the structures for (41) exactly parallel the structures in (40) above:

- (42) a. b.

Here too, we claim, the simple relation between emphaticity and definiteness can be maintained. (42b), like (40b), consists of a compound, and it denotes a glass of a particular kind, a wine-glass. As in (40b), the emphaticity of *ES-wine* serves to determine the emphaticity of the CS-head, which in turn determines the definiteness of the noun phrase headed by the compound.

The interesting reading in this case is the one in (42a). Unlike the English translation in (41a), in Hebrew *wine* is a definite NP, headed by the emphatic-state measured noun *ES-wine*. This definite NP denotes the maximal quantity of wine in the context (in accordance with *e.g.* Sharvy's 1980, Link's 1983 view of mass-term definiteness). As will be elaborated below, a CS noun combining with a definite argument NP is interpreted as a function, in this particular case a measure function restricting the amount (a glass) of the wine. The literal translation of (42a), though less idiomatic in English, would therefore be: *the wine, of which the amount is a glass*.

An additional example of an amount construct is given below, with a numeral head:

- (43) šlošet ha-yeladim
 three-CS ES-children
 ‘the three children’

- (44)
- ```

 NPDef
 / \
 N NPDef
 | |
three-CS NEmph
 |
 ES-children
 |
‘the three children’
lit: ‘the children, of which the number is three’

```

Unlike the English translation in (43), in Hebrew *children* is a definite NP headed by the emphatic-state count noun *ES-children*. This definite NP denotes the maximal plurality of children in the context. The CS noun denotes the amount function which contributes a presupposition regarding the number of the children (we return to this below in section 6). The literal translation of (44) would therefore be: *the children, of which the number is three*.

Note that there is no way to block the definite reading of *ES-children* in (44); it manifests itself clearly in an example such as (45) below. If we tried to generate an English-style analysis of (43), we would have to derive a partitive reading for (44) where it means *three of the children*, in parallel to the partitive (45). But (44) does not have a partitive reading.<sup>9</sup>

- (45)    axad        ha-yeladim  
          one-CS    ES-children  
          ‘one of the children’

We conclude that emphaticity corresponds to definiteness for argument/predicate NP, but not for N which is the modifiee in an attributive relation such as adjectival modification or compound modification.<sup>10</sup>

9.        Rather, it is the partitive interpretation of (45) which is special.

10.       Danon (2001, 2008a, 2010) maintains that annex ES-nouns which are not definite are also found in constructs which are not compounds, such as picture NPs. His example is (i), which is indeed not a compound. Danon claims that though the annex is an ES-N, it is not necessarily definite, and that it is possible to translate (i) as *the picture of a monk*:

(i)       tmunat        ha-nazir  
          picture-CS    ES-monk

#### 4. Relational nouns

CS nouns in Hebrew are interpreted as relational nouns.

Cross linguistically, the most common relational (non-derived) nouns denote

- inter-individual relations:
  - kinship (mother, uncle, cousin, grandfather, spouse)
  - socially defined (teacher, student, friend, lover, neighbour, stranger, expert, owner, colleague)
  - institutionally defined roles (captain (of a ship), capital (of a country), mayor (of a city), governor (of a province))
  - telic qualia (purpose and function)
    - use and control by owner (car, gown, pet)
    - social institutions fulfilling particular use and purpose in given locations (hospital, school, newspaper, supermarket, public transportation)
    - abstract (behalf, sake)
  - agentive qualia
    - author, creator (picture, story)
- individual-internal qualia relations:
  - part-whole relations:
    - body parts (hand, head, finger)
    - spatial parts (corner, side, coastline, periphery, vicinity, north, top, front, left)
    - temporal parts (beginning, end, middle)
    - membership (member, associate, inhabitant, citizen, employee)
  - intrinsic aspects of entities:
    - color, speed, weight, shape, temperature, price, size, amount

There is a cross linguistic tendency for more structural “cohesion” in relational constructions than in possessive constructions. In Hebrew, the construct state (CS) is the idiomatic form of relational nouns which allows them

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Indeed, if there are two monks and the picture depicts only one of them, there is no presupposition failure. Imagine a gallery which exhibits among other things the picture of a monk, and the statue of a different monk. A visitor can say

- (ii) tmunat      ha-nazir      me'anyenet  
          picture-CS   ES-monk (is) interesting

without presupposition failure (this argument is due to Gabi Danon p.c.). But notice that exactly the same is true for the corresponding English *The picture of the monk is interesting*. In the discussion of (31) above, we noted that the noun *picture* is not necessarily extensional, i.e. it does not necessarily relate an actual monk to his picture. But even if it does, in picture NPs, the picture is considered to be the context, and, as long as the monk depicted is unique within the picture, it counts as unique. We thus maintain that the only translation of (i) is *the picture of the monk*.

to appear in close association with their argument. The periphrastic construction, where the possessor is not an argument (Partee and Borschev 2001), does not seem suitable to express such relations:<sup>11</sup>

- |      |                              |            |                   |     |            |
|------|------------------------------|------------|-------------------|-----|------------|
| (46) | <b>drom</b>                  | ha-arec    | ?ha- <b>darom</b> | šel | ha-arec    |
|      | south-CS                     | ES-country | ES-south          | of  | ES-country |
|      | 'the south of the country'   |            |                   |     |            |
|      |                              |            |                   |     |            |
| (47) | <b>roš</b>                   | ha-migdal  | ?ha- <b>roš</b>   | šel | ha-migdal  |
|      | head-CS                      | ES-tower   | ES-head           | of  | ES-tower   |
|      | 'the top of the tower'       |            |                   |     |            |
|      |                              |            |                   |     |            |
| (48) | <b>txilat</b>                | ha-ši'ur   | *ha- <b>txila</b> | šel | ha-ši'ur   |
|      | start-CS                     | ES-class   | ES-start          | of  | ES-class   |
|      | 'the beginning of the class' |            |                   |     |            |
|      |                              |            |                   |     |            |
| (49) | <b>tovat</b>                 | ha-mada'   | *ha- <b>tova</b>  | šel | ha-mada'   |
|      | sake-CS                      | ES-science | ES-sake           | of  | ES-science |
|      | 'the sake of science'        |            |                   |     |            |

The construct is only interpreted as relational, whereas the periphrastic possessive construction allows for contextual association between the possessor and the possessee (Rosén 1957, Doron & Meir 2013):<sup>12</sup>

- |      |                                                                                                          |                |                 |                                                                                        |                |
|------|----------------------------------------------------------------------------------------------------------|----------------|-----------------|----------------------------------------------------------------------------------------|----------------|
| (50) | <b>bnot</b>                                                                                              | <b>ha-mora</b> | <b>ha-banot</b> | <b>šel</b>                                                                             | <b>ha-mora</b> |
|      | girls-CS                                                                                                 | ES-teacher     | ES-girls        | of                                                                                     | ES-teacher     |
|      | 'the daughters of the teacher'                                                                           |                |                 | 'the teacher's girls'                                                                  |                |
|      | (not necessarily her daughters, maybe her students, or girls associated in any contextually salient way) |                |                 |                                                                                        |                |
|      |                                                                                                          |                |                 |                                                                                        |                |
| (51) | <b>ešet</b>                                                                                              | ha-cayar       | ha- <b>iša</b>  | šel                                                                                    | ha-cayar       |
|      | woman-CS                                                                                                 | ES-artist      | ES-woman        | of                                                                                     | ES-artist      |
|      | 'the wife of the artist'                                                                                 |                |                 | 'the artist's woman'                                                                   |                |
|      | (not necessarily his wife, could be the woman he painted)                                                |                |                 |                                                                                        |                |
|      |                                                                                                          |                |                 |                                                                                        |                |
| (52) | <b>ceva</b>                                                                                              | ha-stav        | ha- <b>ceva</b> | šel                                                                                    | ha-stav        |
|      | colour-CS                                                                                                | ES-autumn      | ES-colour       | of                                                                                     | ES-autumn      |
|      | 'the colour of autumn'                                                                                   |                |                 | 'autumn's colour'                                                                      |                |
|      | (the prevalent colour of nature in that time of year)                                                    |                |                 | (the colour associated with autumn, e.g. the one in vogue in autumn fashion this year) |                |

11. In the periphrastic construction, both nouns appear in the absolute state or the ES, and are therefore independently marked as [ $\pm$ emph]; the possessor is separated from the head noun by the preposition *šel* 'of'.

12. There is an additional version of the construct which includes clitic doubling (Borer 1984); this version too is relational.



The relation denoted by the CS noun can be constructed from a sortal noun by specifying a qualia relation. This type of relational interpretation was suggested by Heller (2002) following Vikner and Jansen (2002), as a means of coercing sortal nouns to a relational interpretation:

- (53) **mexonit** ha-šaxen                      ha-**mexonit** šel ha-šaxen  
 car-CS      ES-neighbour.M              ES-car      of      ES-neighbour.M  
 ‘the neighbour’s car’                      ‘the neighbour’s car’  
 (the car he uses)                      (could be the car he bet on)
- (54) **glimat** ha-melex                      ha-**glima** šel ha-melex  
 gown-CS      ES-king                      ES-gown      of      ES-king  
 ‘the king’s gown’                      ‘the king’s gown’  
 (he wears it)                      (he may have ordered it for his wife)

The relational association within the construct is true for derived nouns as well. In the case of event-nominalization, the construct most often takes its annex as internal rather than external argument (Rosén 1957):

- (55) **giluy** ha-meragel                      ha-**giluy** šel ha-meragel  
 discovery-CS      ES-spy                      ES-discovery      of      ES-spy  
 ‘the discovery of the spy’                      ‘the spy’s discovery’  
 (*spy* is internal arg only)                      (*spy* may be external arg)

In the case of agentive-nominalization, the construct takes its annex only as internal argument:

- (56) **roceax** roš ha-memšala  
 murderer-CS      head-CS      ES-government  
 ‘the murderer of the prime-minister’      (*prime-minister* internal arg only)  
 ha-**roceax** šel roš ha-memšala  
 ES-murderer      of      head-CS      ES-government  
 ‘the prime-minister’s murderer’ (could be a murderer hired by the PM)

## 5. The interpretation of CS in Modern Hebrew

For the purposes of this article, we only discuss the interpretation of CS nouns where they head a noun phrase rather than a compound:

- (57) [<sub>NP</sub> N<sub>CS</sub> NP]

Dobrovie-Sorin (2000) and Heller (2002) have suggested an interpretation of N<sub>CS</sub> as a function of type <e,e>. CS is viewed as an operation which shifts the denotation P of the noun N to the denotation P<sub>CS</sub> of N<sub>CS</sub> in the following way:

- (58) a. P<sub>CS</sub> ~> λx. ty P(y, x)                      P is a relational  
 b. P<sub>CS</sub> ~> λx. ty [P(y) & R<sub>p</sub>(y, x)]                      P is sortal

$R_p$  is a context-independent relation determined by P which is a restricted possessive relation (unlike the contextual non-restricted possessive relation found in periphrastic possessives) which is the coerced qualia relation suggested by Heller (2002) following Vikner and Jensen (2002).

This approach is appropriate where P (or  $R_p$ ) is not just relational but functional, as in:<sup>13</sup>

- (59) a. avi                ha-kala  
          father-CS   ES-bride        ‘the father of the bride’  
       b. beyt            avixay  
          house-CS   Avihai        ‘the home of Avihai’

It relies on the additional presupposition that for each individual x in the domain, there is a unique y related to it by P (or  $R_p$ ). Yet there are cases where this presupposition fails, *i.e.* cases when P (or  $R_p$ ) is not functional but relational. These are the cases where we get weak rather than strong definiteness, as was observed by Danon (2001) (though Danon himself treats these examples as indefinites):

- (60) a. regel                ha-šulxan  
          leg-CS            ES-table            ‘the leg of the table’  
       b. xalon                ha-mexonit  
          window-CS   ES-car            ‘the window of the car’  
       c. dod                ha-kala  
          uncle-CS        ES-bride            ‘the uncle of the bride’  
       d. ovedet            ha-šagrirut  
          employee-CS   ES-embassy        ‘the employee of the embassy’  
       e. tošav                ha-ezor  
          inhabitant-CS   ES-area            ‘the inhabitant of the area’  
       f. talmid                ha-xug  
          student-CS      ES-department    ‘the student of the department’

The following is an attested example:

- (61) ha-pinuy        le-xadar        miyun        ye’ase        be-livuy  
       ES-evacuation   to-room-CS   emergency   will-be-done   in-company-CS  
       mevugar – **hore**        **ha-talmid**    o **xaver**        **ha-cevet** **ha-xinuxi**  
       adult        – parent-CS   ES-student   or member-CS   ES-team   ES-educational  
       ‘Evacuation to the emergency-room will be done in the company of an adult  
       – the parent of the student or the member of the educational team.’ (internet)

The CS-nouns in (60), like *leg* or *window* etc, are not semantically unique, and we attribute the definiteness of these examples to the contextual function  $F_{C_x}$

13. The amount constructs in (42a) and (44) above are additional examples of constructs with functional heads.

discussed in section 2 above. For this type of relational nouns, we define CS as a relation which relates the interpretation P of NP to a property:

- (62) a.  $P_{CS} \leadsto \lambda x \lambda y P(y, x)$  P is a relational  
 b.  $P_{CS} \leadsto \lambda x \lambda y [P(y) \ \& \ \mathbf{R}_p(y, x)]$  P is sortal

The weak definite reading is a shift of the interpretations in (62) to the one in (63):

- (63)  $P_{CS} \rightarrow \lambda x. \mathcal{F}_{C,x} [\lambda y. P_{CS}(y, x)]$

In the examples in (60) above, this shift is triggered by the presence of the feature [+emph] which originates in the annex and is interpreted as definiteness. But as in Poesio's examples, the shift in (63), yielding the weak definite reading, is also found where the possessor is indefinite. In such case, the shift is triggered by the definiteness of the clitic (-a '3FS' in (64)), which doubles the indefinite possessor and formally serves as the [+emph] annex:<sup>14</sup>

- (64) b-a-mexira ha-pumbit nimkera **simlat-a šel saxkanit mefursemet**  
 in-ES-auction ES-public was-sold dress-CS-3FS of actress famous  
 'The dress of a famous actress was sold in the auction.'

We thus agree with the received view in the literature on the construct state (other than Danon) that a definite annex necessarily generates a definite (either weak or strong) construct.

## 6. Amount definites

As shown in section 3 above, CS-nouns denoting amounts combine with referring definite NPs. Examples are shown again below, where the literal translation emphasizes the fact that these examples are constructed by merging the amount noun externally to the definite NP (rather than as part of the definite NP, as in English):

- (65) a. šlošet ha-targilim b. kos ha-yayin  
 three-CS ES-exercises glass-CS ES-wine  
 'the three exercises' 'the glass of wine'

Literally:

'the exercises, of which there are three' 'the wine, of which there is a glass'

14. The bolded NP in (64) is indeed a weak definite, as it does not presuppose uniqueness of a dress per actress.

On the other hand, indefinite nouns are combined with a specifier NP where the amount noun is in the absolute state:<sup>15, 16</sup>

- (66) a. šloša targilim                      b. kos yayin  
           three exercises                      glass wine  
           ‘three exercises’                      ‘a glass of wine’

In Modern Hebrew, there is a second, colloquial, construction for definite NPs with numeral/amount nouns, in addition to the formal one shown in (65); we have called the colloquial construction *amount definites*. In (67a) below we repeat the formal construction (65a), and we illustrate the parallel amount definites in (67b). In the formal construction, the counted noun is in the ES form; in the amount definites, it is the numeral which is in the ES form, while the counted noun is in the absolute form. On principle, this difference of attachment of the definite article (the ES inflectional morpheme) is simply a difference of register and is not reflected in the interpretation. It seems to correlate with the tendency to avoid the process of “emphaticity sharing” in the colloquial language. In the formal (a) constructions in (67–69) below, the construct state numeral shares

15. There is syncretism of the absolute and construct forms of the noun *kos* ‘glass’, as seen in (65b) and (66b). These forms can be distinguished in that the construct state *glass*-CS must be adjacent to the annex *wine*, as explained in section 3 above, whereas the absolute state *glass* can head its own phrase and be separated from *wine*:

- (i) a. \*kos va-xeci ha-yayin  
           glass-CS and-half ES-wine                      ‘the glass and a half wine’  
       b. kos va-xeci yayin  
           glass and-half wine                      ‘a glass and a half wine’

16. The fact that CS-nouns denoting amounts do not combine with indefinite NPs can be explained as follows: When a CS-noun denoting an amount combines with an NP, it combines with this NP only under a collective interpretation; e.g. *three* in (65a) is true of the collection of exercises, not of each of them separately. But an indefinite does not have a collective interpretation when it is an argument of an individual-level relation (Crnič 2010). For example, consider the contrast:

- (i) a. kama šoqlim ha-sfarim                      b. kama šoqlim sfarim  
           how-much weigh ES-books                      how-much weigh books  
           ‘How much do the books weigh?’                      ‘How much do books weigh?’  
       (ii) a. ha-talimidim mehavim cevet                      b. #talimidim mehavim cevet  
           ES-students constitute team                      students constitute team  
           ‘The students constitute a team.’                      ‘Students constitute a team.’

In the (b) examples, the indefinite plural can only be interpreted distributively. For example, (ib) only asks about the distributive weight of books, and (iib) claims (infelicitously) that each student is a team. If an indefinite only has a distributive reading, it cannot combine with a CS-noun denoting an amount, since the latter requires a collective annex:

- (iii) \*šlošet targilim  
           three-CS exercises  
           ‘three exercises’

the emphatic feature of its emphatic annex. In the colloquial construction in (b), the numeral is independently marked as emphatic:<sup>17</sup>

- (67) a. šlošet ha-targilim                      b. colloquial: ha-šloša targilim  
           three-CS ES-exercises                      ES-three exercises  
           both: 'the three exercises'
- (68) a. xamešet ha-šqalim                      b. colloquial: ha-xamiša šqalim  
           five-CS ES-Shekels                      ES-five Shekels  
           both: 'the five Shekels'
- (69) a. kos ha-yayin                      b. colloquial: ha-kos yayin  
           glass-CS ES-wine                      ES-glass wine  
           both: 'the glass of wine'

Semantically, when an indefinite with a numeral or a measure phrase such as in (66) appears within an intensional construction, as in (70) below, the numeral is always interpreted *de-re*, though the noun itself may be interpreted *de-re* or *de-dicto* (Heycock 1995). Thus, (70) is ambiguous, and can be interpreted such that the requirement is to solve either particular exercises, the number of which is three, or a particular number of exercises, which is three:

- (70) kedey la'avor, carix li-ftor šloša targilim  
       in-order to-pass, required to-solve three exercises  
       'In order to pass, one is required to solve three exercises.'  
       a. 'The requirement is to solve specific exercises, the number of which is three.'  
       b. 'The requirement is to solve a number of exercises, which happens to be three.'

Based on the literal interpretation we derived for the corresponding definite in (65a), we predict that (71) unambiguously only has the first reading, which is indeed the case:

- (71) kedey la'avor, carix li-ftor et šlošet ha-targilim  
       in-order to-pass, required to-solve ACC three-CS ES-exercises  
       'In order to pass, one is required to solve the three exercises.'  
       only (a): 'The requirement is to solve the exercises, the number of which is three.'

To express the (b) reading, we need the colloquial amount definite construction where the numeral is not in the CS from, but constitutes a NP which can

17. The process of emphaticity sharing in the construct was described in (34b-35b) above. This process is avoided in colloquial Hebrew not only with numerals, but also in compounds, where the emphatic marker *ha-* is attached to the compound as a whole (ib) rather than to the annex as in (ia). We do not discuss this phenomenon further here, but see Meir & Doron (2013).

(i) a. **Formal**                      b. **Colloquial**  
       [simlat ha-kala]<sub>N</sub>                      ha-[simlat kala]<sub>N</sub>  
       [gown-CS ES-bride]<sub>N</sub>                      ES-[gown-CS bride]<sub>N</sub>  
       'the bridal gown'                      'the bridal gown'

be LF-raised on its own outside the scope of the intensional predicate (*i.e.* separated from its annex), so that the numeral alone is *de-re*. Thus the same sentence with the amount definite regains the ambiguity of the indefinite:

- (72) kedey la'avor, carix li-ftor et ha-šloša targilim  
 in-order to-pass, required to-solve ACC ES-three exercises  
 'In order to pass, ....'  
 a. 'The requirement is to solve the exercises, the number of which is three.'  
 b. 'One must solve the required number of exercises, which is three.'

Notice that the (b) readings in (70) and (72) are not exactly identical. In (72) the number of exercises is an explicit part of the requirement. We will account for that by postulating that the emphatic numeral is interpreted as salient in the context.

Similarly, when there is a relative clause, only the amount definite gives rise to an amount relative. The relative clause in (73a), with the formal CS numeral, only denotes a property of objects, whereas the one in (73b), with the colloquial ES numeral, can also be interpreted as an amount relative:

- (73) a. patarti yoter mi- šlošet ha-targilim še- at patart  
 I-solved more than three-CS ES-exercises that you-FS solved  
 'I solved more than the three exercises that you solved.'  
 b. patarti yoter mi- ha-šloša targilim še- at patart  
 I-solved more than ES-three exercises that you-FS solved  
 'I solved a higher number of exercises than the number of the three exercises that you solved.'

While (73a) means that you solved three exercises and I solved the same ones and more, (73b) also means that you solved three exercises and I solved at least four.

We claim that both the formal and colloquial numeral constructions in (67-69) are definite in form, yet the colloquial construction, the amount definite, may be interpreted as indefinite. Thus, amount definites constitute a novel type of weak definites.

The indefinite interpretation of amount definites is revealed by their acceptability in environments where only NPs with indefinite interpretation are appropriate. In such environments, *e.g.* (74)-(77) below, the formal numeral constructions in (a) are judged by speakers as unacceptable, even within the formal register. Only the colloquial amount definites in (b) are judged as acceptable:<sup>18</sup>

18. Another characteristic of the colloquial construction is the approximative flavour of some examples, *e.g.* (77b) where the cost may vary slightly for each instance of storage, though all instances are around 100 Shekel. We do not discuss approximativity further here, but see Meir & Doron 2013.

- (74)        ha-mišpaxot    im  
               ES-families    with  
 a. #šlošet            ha-yeladim  
               three-CS       ES-children  
               ‘the families with the three children’  
 b.    ha-šloša            yeladim  
               ES-three        children  
               ‘the families with three children’
- (75)    ha-alut        le-mišpaxa    lo        overet    et  
              ES-cost       per-family    NEG    exceeds    ACC  
 a. #xamešet    ha-šqalim  
               five-CS       ES-Shekels  
               ‘The cost per family does not exceed the 5 Shekels.’  
 b.    ha-xamiša    šqalim  
               ES-five        Shekels  
               ‘The cost per family does not exceed 5 Shekels.’
- (76)    crixat            ha-alkohol    šelo    hi    bisvivot  
              consumption ES-alcohol    his    is    about  
 a. #kos        ha-yayin    be-yom  
               glass-CS    ES-wine    in-day  
               ‘His alcohol intake is about the glass of wine a day.’  
 b.    ha-kos    yayin        be-yom  
               ES-glass    wine        in-day  
               ‘His alcohol intake is about a glass of wine a day.’
- (77)    habe’ayot        še-            nitqalim    bahem    kše-    xosxim    et  
              ES-problems    that        one faces    them    when    one saves    ACC  
 a. #me’at        ha-šqalim    al ixsun  
               hundred-CS    ES-Shekels    on storage  
               ‘The problems one faces when one saves the one hundred Shekels for storage.’  
 b.    ha-me’a        šqalim        al ixsun  
               ES-hundred    Shekels        on storage  
               ‘The problems one faces when one saves one hundred Shekels for storage.’

We will not discuss each one of these minimal pairs separately. As an illustration, we formally present the contrast in (74) repeated here in (78).

- (78)    a. # ha-mišpaxot    im        šlošet    ha-yeladim  
               ES-families        with        three-CS    ES-children  
               ‘the families with the three children’  
 b.    ha-mišpaxot    im        ha-šloša    yeladim  
               ES-families        with        ES-three    children  
               ‘the families with three children’

We propose the following semantic translations for the absolute, emphatic and construct state forms of the numeral respectively:

- (79) a. šloša ‘three’  $\sim \lambda P. \mathcal{F}_i[\lambda y. P(y) \ \& \ |y| = 3]$  i is a new index  
           where  $|y|$  denotes the number of atoms that the sum individual  $y$  consists of  
       b. ha-šloša ‘ES-three’  $\sim \lambda R. [\lambda x. \mathcal{F}_{C,x}[\lambda y. R(y, x) \ \& \ |y| = 3]]$   
       c. šlošet ‘three-CS’  $\sim \lambda x. \mathcal{F}_C[\lambda y. y=x \ \& \ |y| = 3]$   
            $= \lambda x. x \text{ if } |x| = 3$

Thus, *šloša* in (79a) is an indefinite determiner interpreted with a new choice function; *ha-šloša* in (79b) is defined as the corresponding weak definite; *šlošet* in (79c) is a functional CS noun which serves as a test: it maps an individual to itself if this individual consists of 3 atoms. We can thus rewrite (79c) as the identity function  $\lambda x. x$ , in case  $|x| = 3$ .

We construct the two different interpretations of the sentences in (78), and account for their difference in acceptability:

- (80) # ha-mišpaxot im šlošet ha-yeladim  
       ES-families with three-CS ES-children  
       ‘the families with the three children’

The oddity of (80) stems from the fact that the families in its denotation all include the same unique group of three children, *i.e.* the most salient plurality (typically the maximal one) of three children. But knowledge of the world tells us that different families normally have different groups of children. In (81) on the other hand, each family  $u$  has a different group of children yielded by  $\mathcal{F}_{C,u}$ . The weak definite nature of the numeral satisfies the requirement of definiteness agreement between the head and the modifier (Danon 2008b):



- (81) ha-mišpaxot im ha-šloša yeladim  
 ES-families with ES-three children  
 ‘the families with three children’

## 7. Conclusion

Relational nouns *R* are nouns of type  $\langle e, \langle e, t \rangle \rangle$ , and we have proposed a particular rule which shifts their denotations to functions, *i.e.* type  $\langle e, e \rangle$ , yielding weak definites:

$$(82) \quad \lambda x. [\lambda y. R(y, x)] \rightarrow \lambda x. \mathcal{F}_{C,x} [\lambda y. R(y, x)]$$

In English, this type-shift is triggered by the presence of the definite article *the* in weak definite possessive constructions such as the one in (83):

- (83) the leg of the table

The definite article in this construction is attached to the relational head and not to the phrase as a whole, and shifts the relational noun's interpretation to a function, as in (82). This function maps the possessor to a single leg, without the presupposition that the leg is unique to begin with.

We have argued that in Hebrew, the type-shift in (82) is triggered by the cs form of the head in combination with the ES form of the annex, *e.g.*

- (84) regel ha-šulxan  
 leg-CS ES-table  
 ‘the leg of the table’

We have also discussed an additional type of weak definites, the colloquial Hebrew amount definites, where the relevant type-shift is triggered by an ES numeral. For example, we have shown that the ES numeral *ha-šloša* ‘ES-three’ triggers the type shift in (85) when it combines with a relational noun such as *yeladim* ‘children’.

$$(85) \quad \lambda x. [\lambda y. R(y, x)] \rightarrow \lambda x. \mathcal{F}_{C,x} [\lambda y. R(y, x) \ \& \ |y| = 3]$$

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### RÉSUMÉ

Cet article a deux objectifs : il présente, d'une part, une analyse des définis faibles en général et, d'autre part, une analyse de la flexion d'état des langues sémitiques et de son rôle dans la caractérisation de la définitude forte ou faible. Nous introduisons un nouveau type de défini faible que nous appelons « définis de quantité » (*amount definites*). En nous appuyant sur une analyse de la définitude en termes de fonction de choix, nous analysons les définis faibles comme le résultat de l'application d'un déterminant défini dont on a changé le type à un nom relationnel. Cette application conduit à réinterpréter le nom relationnel comme un nom fonctionnel. En hébreu, les définis faibles sont souvent des groupes nominaux ayant pour tête un nom à l'état construit ; ces noms sont vus comme relationnels. En hébreu parlé, le déterminant défini utilisé pour former des définis faibles peut prendre la forme d'un numéral (ou d'un nom de quantité) marqué par la flexion d'état emphatique. Nous appelons « définis de quantité » ces définis dont la tête est un nom de quantité à l'état emphatique.

### MOTS-CLÉS

Défini de quantité, défini faible, fonction de choix, nom relationnel, nom fonctionnel, nom de quantité, état absolu, état construit, état emphatique, montée de type, sémitique, hébreu, hébreu parlé.