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Differential Object Marking in Modern Hebrew: Definiteness and Partitivity

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This paper investigates the phenomenon of differential object marking (DOM) currently exhibited in Modern Hebrew. The consensus in the theoretical literature on Hebrew has been that the object marker *et* is only licensed in the context of definite DPs. We observe, however, that in Modern Hebrew partitive nominals may also be preceded by *et*. Using a judgment task, we asked 41 native Hebrew-speaking adults to rate sentences with *et*-marked partitive object DPs on a 5-point acceptability scale.

Our results reveal that partitive items received a considerably high acceptance score, with an overall average of 3.6/5. In addition, we found a main effect for object-position and quantifier-type. In particular, acceptability of *et*-marked partitives increased significantly for preposed DPs and for DPs that contained proportional quantifiers (as opposed to cardinals).

The optional acceptability of *et*-marked partitives ostensibly challenges the generally accepted view, according to which the distribution of *et* is categorically determined based on the two-way +/-definiteness opposition. We put forth a formal syntactic analysis that reconciles our findings with the definiteness approach.



1 Introduction

Differential object marking (DOM) is a phenomenon observed in more than 300 languages (Bossong 1985), whereby the object of a verb may be either marked or unmarked for case, depending on a range of factors. The major properties that affect the form of the object are definiteness, specificity and animacy (cf. e.g. Aissen 2003 and references therein). In general, the more prominent, individuated objects (ones that are animate, specific and/or definite) are more likely to be case-marked, and the less prominent ones tend to remain unmarked. The more specific requirements depend on the particular language.

DOM is observed in a wide range of language families, including Semitic languages, such as Biblical Hebrew, Aramaic and Amharic. Modern Hebrew exhibits this phenomenon as well. The morpheme *et*, often analyzed as an accusative case marker (e.g. Givón 1978; Siloni 1997; Janssen et al. 2015; Taube 2015), attaches to some objects but not to others. The general assumption is that the property determining its distribution is definiteness: *et* is obligatory with definite objects (1a) but unacceptable with indefinite ones (1b) (cf. e.g. Givón 1978; Siloni 1997; Wintner 2000; Danon 2001b; 2002; 2006; Ruigendijk & Friedmann 2008; among many others).

- (1) a. dani pagaš *(et) ha-student.
 Dani met.3.SG.M ACC the-student
 ‘Dani met the student.’
- b. dani pagaš (*et) student.
 Dani met.3.SG.M ACC student
 ‘Dani met a student.’

In (1a), the DP *ha-student* is definite, as indicated by the presence of the definite article *ha-*. As a result, *et* is obligatory. In (1b), the reverse is observed: since the object is indefinite, the attachment of *et* results in ungrammaticality.

Some analyses do not treat *et* as a case-marker, but rather as a preposition (Danon 2001b); still, the common wisdom remains the same: its acceptability is determined by the definiteness of the DP. The present paper introduces new data which seem to challenge this view. Specifically, we argue that in colloquial Modern Hebrew, the marker *et* attaches to (certain) partitive objects. In particular, it optionally marks DPs that contain an overt partitive PP headed by the preposition *me-* ‘from’, ‘of’, as illustrated in the naturally occurring example (2):¹

- (2) mitbarer še-hem makirim et xeci me-ha-anašim šam.
 turns_out that-they know.PL.M ACC half of-the-people there
 ‘It turns out that they know half of the people there.’²

¹ One example of this type is mentioned by Danon (2001a), as we discuss in more detail in Section 3.

² <https://travelingelkins.wordpress.com/2007/07/08/94/> accessed on 17.08.2016.

We show that the distribution of *et* divides objects into three, rather than two, groups: (i) definites (obligatorily case-marked), (ii) partitives (optionally case-marked) and (iii) indefinites (obligatorily unmarked). Building on experimental data, we systematically show which properties increase the likelihood of a partitive object to be *et*-marked. We then propose a formal syntactic analysis, based largely on Danon's (2013) approach to agreement properties of quantified expressions, which accounts for our experimental findings. In particular, we argue that partitive objects may exhibit two definiteness-related patterns: they may be either syntactically indefinite, in accordance with the properties of the quantificational head, or syntactically definite, by virtue of inheriting the [+definite] feature of the embedded NP (complement of the preposition). In the former case, they will remain unmarked; in the latter, they will combine with the marker *et*.

We remain agnostic regarding the syntactic analysis of DOM in terms of case-checking (for detailed analyses, see, for example, Danon 2006; López 2012; Irimia 2020). Any analysis that captures the dependence of object marking on the property of definiteness is compatible with our proposal.

The paper is organized as follows. Section 2 is devoted to the previous literature and is divided into two parts. Section 2.1 concentrates on some of the analyses and generalizations regarding Hebrew *et*, with a special focus on its interaction with definiteness, whereas Section 2.2 includes a cross-linguistic discussion of DOM, focusing on aspects that are particularly relevant for the present paper. Section 3 presents our preliminary observations regarding the interaction of *et* with partitive objects in Modern Hebrew. Sections 4-6 describe our experimental investigation of *et*-marked partitives. In Section 4, we present the experimental design, the material and the procedure, as well as details regarding the participants. Section 5 presents the results of our experiment. We then turn to the General Discussion (Section 6), which examines the results in more detail. Section 7 lays out our formal syntactic analysis of partitive expressions. Finally, Section 8 provides a summary and conclusion.

2 Previous analyses

2.1 The marker *et*

As mentioned above, there is some disagreement in the literature as to the syntactic status of the morpheme *et* in Modern Hebrew. It is often treated as an accusative case-marker (e.g. Givón 1978; Dromi et al. 1993; Sutherland-Smith 1996; Siloni 1997; Falk 2007; Ruigendijk & Friedmann 2008; Janssen et al. 2015; Taube 2015), but also as a preposition (e.g. Frankel et al. 1980; Danon 2001b). Further, some propose a combination of the two approaches, treating *et* as an accusative preposition (Falk 1991) or an accusative marker with some characteristics of a preposition (Wintner 2000; Armon-Lotem & Avraham 2005). For example, Wintner (2000: 324) relates to both case-like and preposition-like characteristics of *et*, saying that “checking the definiteness of a noun phrase in Hebrew involves the direct object (accusative) marker, *'et* [...],

which has the characteristics of a preposition.” In the cross-linguistic DOM literature, Hebrew is often treated as a DOM language, which means that *et* is analyzed as an object case marker (e.g. Aissen 2003; de Swart 2003).

Independently of its syntactic status, it is generally agreed that the appearance of *et* is determined by the definiteness of the DP to which it attaches. For instance, Siloni (1997: 22) points out that *et* “appears exclusively with definite objects”. As illustrated in (3), *et* is obligatory with definite objects, including proper names, pronouns and nominals containing the definite marker *ha-*:

- (3) a. pagašti et dani / oto / et ha-yalda.
 met.1.SG ACC Dani he-ACC ACC the-girl
 ‘I met Dani / him / the girl.’
 b.* pagašti dani / hu / ha-yalda.
 met.1.SG Dani he-NOM the-girl
 ‘I met Dani / him / the girl.’

In contrast, it is typically unacceptable with indefinite objects:

- (4) a. pagašti yalda axat / šloša yeladim / mišehu.
 met.1.SG girl one / three children / somebody
 ‘I met one girl / three boys / somebody.’
 b.* pagašti et yalda axat / et šloša yeladim / et mišehu.
 met.1.SG ACC girl one / ACC three children / ACC somebody
 ‘I met one girl / three boys / somebody.’

Danon (2001b; 2002; 2006) makes a substantial contribution to the theoretical investigation of the syntax and semantics of *et*. In Danon (2001b) he argues convincingly that the distribution of *et* is sensitive to the syntactic definiteness feature, rather than to semantic/pragmatic definiteness. While the two types typically co-occur, Danon demonstrates instances in which semantic and syntactic definiteness do not go hand in hand. For instance, depending on the register, a nominal that contains a demonstrative may appear either with or without the definiteness marker *ha-*:

- (5) a. ha-iš ha-ze
 the-man the-this
 ‘this man’
 b. iš ze
 man this
 ‘this man’

Both (5a) and (5b) constitute grammatical DPs, although the former is more likely to be used in colloquial language and the latter, in a formal register, e.g., in a newspaper. Note that Hebrew

exhibits definiteness agreement; therefore, in (5a), the morpheme *ha-* is attached both to the head noun (*iš* ‘man’) and to the demonstrative (*ze* ‘this’). Due to the presence of the demonstrative, both phrases are clearly semantically definite; further, intuitively, they do not seem to differ in meaning. However, Danon argues that only the former carries the syntactic definiteness feature. He points out that *et* is compatible (and obligatory) with the (5a) type of objects, but not with the (5b) kind, as is revealed in (6). This contrast suggests that *et* is sensitive to syntactic definiteness, rather than to the corresponding semantic property.

- (6) a. pagašti *(et) ha-iš ha-ze.
 met.1.SG ACC the-man the-this
 ‘I met this man.’
- b. pagašti (*et) iš ze.
 met.1.SG ACC man this
 ‘I met this man.’

Danon (2001b) further argues that *et* is a preposition which assigns structural genitive case to its complement DP. Within the approach he develops, the sensitivity of *et* to definiteness is explained in the following way. Hebrew verbs do not assign structural accusative case, but only inherent one. While indefinite objects are fine with inherent accusative, for definite objects, this poses a problem since definite DPs need structural case. The only way to save the derivation, according to Danon, is then by merging the preposition *et*, which supplies the definite DP with structural genitive.

Danon (2006) proposes a restatement of the above analysis. While the new approach retains the key idea that definite and indefinite objects differ in terms of their case requirements, here the contrast is not based on the structural / inherent distinction. Instead, Danon (2006) argues that Hebrew definite nominals (including objects) are DPs, and as such require case; their indefinite counterparts lack the DP projection and hence do not need case. Danon points out that under this view of Hebrew nominal expressions *et* could be analyzed either as a case-marker or as a case-assigning preposition.

In turn, Danon (2002) concentrates on the semantic contribution of *et*. He proposes that this morpheme is not semantically vacuous, but rather constitutes a type-shifting operator. Specifically, it combines with a DP of type $\langle e \rangle$ and lifts it to type $\langle \langle e, t \rangle, t \rangle$. In most instances, this does not bring about any truth-conditional change, which is why intuitively, *et* seems to be semantically empty. The fact that *et* requires an argument of type $\langle e \rangle$ explains its acceptability with definite DPs but not indefinite ones, since only the former constitute an appropriate kind of input.

As far as we can tell, this analysis is compatible both with treating *et* as a case-marker, and as a preposition. In fact, it is worth pointing out that several object case alternations have been

analyzed in the literature in terms of a difference in the semantic type of the DPs (cf. e.g., de Hoop 1992 for Finnish; Bleam 2005 and López 2012 for Spanish; Kagan 2013 for Russian.)

2.2 DOM across languages

Superficially, different DOM languages seem to pose different restrictions on object case marking. However, a deeper consideration reveals systematic cross-linguistic patterns. Roughly, across DOM languages, case-marking is observed with the more prominent / individuated objects, whereas the less prominent ones remain unmarked (cf. e.g., Aissen 2003; Grimm 2005; and references therein). The properties that are particularly likely to affect DOM are definiteness, specificity and animacy (although de Swart 2003 points out that gender and number may also play a role). Aissen further argues that DOM alternations are sensitive to the position occupied by the nominal on two prominence scales: the scale of animacy and the scale of definiteness (the latter incorporates both definiteness and specificity):

(7) Definiteness scale: Pronoun > Name > Definite > Indefinite Specific > Non-Specific

(8) Animacy scale: Human > (non-human) Animate > Inanimate (based on Croft 1988)

The higher an object is on a scale, the more prominent, or individuated, it is. Thus, humans are more individuated than inanimate objects, and definite nominals are more prominent than their indefinite counterparts. For case-marking, the following predictions are rendered. If, in a given language, objects appearing on a particular level on a scale are obligatorily marked for case, then objects that are higher in the hierarchy will be obligatorily marked, too. And if objects on a particular level are optionally case-marked, then the higher objects will also be case-marked, *at least* optionally. To illustrate, if in a language whose DOM is based on the definiteness scale, specific indefinites are obligatorily accusative, so will be all types of definite objects, including definite descriptions, proper nouns and proper names. However, we cannot make predictions regarding the (non-)marking of non-specific indefinites in this language.³

While observing the above-mentioned restrictions, different languages make cut-off points between marked and unmarked objects at different places on the relevant scale. For instance, the accepted view is that Modern Hebrew case-marks all types of (syntactically) definite objects but not indefinite ones (e.g., Shlonsky 1997; Siloni 1997; Wintner 2000; Danon 2001b; 2002; 2006; Aissen 2003). Thus, Aissen proposes the following pattern for the Hebrew DOM:

³ In many languages, including e.g. Kannada, Spanish and Romanian, an interaction of the two scales is at work (cf. e.g. Aissen 2003; Lidz 2006; Klein & de Swart 2011). In order to capture DOM pattern in such languages, Aissen creates partial ranking of composite properties by crossing the two scales. The general idea is the same as with unidimensional DOM: objects that are higher in prominence/individuation are more likely to receive overt case marking. Human pronouns are the most prominent; inanimate non-specific DPs, the least prominent.

- (9) Personal pronoun > Proper name > Definite DP > / Indefinite specific DP >
Non-specific NP

In contrast, Turkish case-marks not only definite objects but also (certain types of) specific indefinites. Importantly, these include partitive nominal phrases. Thus, according to Enç (1991), overt partitives, which contain an analogue of the English *of*-phrase (as in *three of the boys*), obligatorily appear in the accusative form. This is illustrated in (10) and (11) (from Enç 1991: 10.) These sentences demonstrate that the superset can be represented in Turkish as either an ablative (10) or a genitive (11) nominal. Both versions are unacceptable without accusative case-marking.

- (10) a. Ali kadın-lar-dan iki-sin-i taniyordu.
Ali woman-pl-ABL two-AGR-ACC knew
'Ali knew two of the women.'

b.* Ali kadın-lar-dan iki-si taniyordu.

- (11) a. Ali kadın-lar-in iki-sin-i taniyordu.
Ali woman-pl-gen two-AGR-ACC knew
'Ali knew two of the women.'

b.* Ali kadın-lar-in iki-si taniyordu.

Also, objects containing inherently strong / proportional quantifiers (e.g. the universal quantifier), are obligatorily accusative (12). Weak quantifiers, such as cardinals, do not impose such a requirement (see 13 below and the ensuing discussion).

- (12) a. Ali her kitab-i okudu
Ali every book-ACC read
'Ali read every book.'

b.* Ali her kitap okudu.

(Enç 1991:10)

Turning to indefinite DPs which are not (overtly) partitive, such objects can appear either with or without case marking. According to Enç (1991), the attachment of the accusative suffix results in a partitive reading. To illustrate, Enç points out that the sentence in (13) could be followed by either of the sentences in (14):

- (13) Odam-a birkaç çocuk girdi.
my-room-DAT several child entered
'Several children entered my room.'

- (14) a. İki kız-i taniyordum.
two girl-ACC knew-1sg
'I knew two girls.'

- b. İki kız taniyordum.
 two girl knew-1sg
 'I knew two girls.'
 (Enç 1991:6)

In (14a), the phrase 'two girls' appears with the accusative marking and as a result, its referent is understood to be included in the set of children mentioned in (13). In other words, the object DP in (14a) is interpreted partitively, even though it does not have an overt partitive structure. This is sufficient for licensing the accusative suffix. As we will see below, Modern Hebrew is different in this respect: the distinction between partitive interpretation and partitive structure plays a crucial role (see Section 7.2). In contrast to (14a), (14b) is interpreted as a statement about two different girls who do not belong to the previously introduced set.

Enç claims that partitivity plays a crucial role in Turkish DOM. In turn, von Heusinger & Kornfilt (2005) argue that a broader notion of specificity is required in order to capture the Turkish DOM pattern. They claim that under certain conditions, overt partitives may be caseless in Turkish and, moreover, non-partitive indefinites may appear with the accusative suffix if they receive a specific interpretation. Özge (2011), too, argues that an accusative DP may be licensed in the absence of partitivity. Consider, for example, the following minimal pair from von Heusinger & Kornfilt (2005: 7–8) (original example numbers 6b–c):

- (15) a. (Ben) bir kitap oku-du-m.
 I a book read-PST-1SG
 'I read a book.'
- b. (Ben) bir kitab-ı oku-du-m.
 I a book-ACC read- PST-1SG
 'I read a **certain** book.'

The indefinite object DP is intuitively interpreted as specific in (15b), in which it contains the accusative suffix *-i*. This is reflected in the addition of *certain* in the translation. However, the DP need not receive a partitive interpretation, i.e., the book need not be a member of a previously mentioned set of objects. Again, we will show that Modern Hebrew is different: it disallows accusative marking of indefinite non-partitive objects. The Turkish configuration can be represented on the definiteness scale in the following way:

- (16) Personal pronoun > Proper name > Definite DP > Indefinite specific DP > /
 Non-specific DP

In addition, von Heusinger & Kornfilt show that Turkish DOM is sensitive to the syntactic position of the object. Specifically, unmarked objects are only possible in the canonical object position of

this language, namely, immediately preceding the verb. In other positions, e.g. when separated from the verb by an adverb,⁴ the object is obligatorily accusative-marked (von Heusinger & Kornfilt 2005).⁵

With these facts in mind, we can now turn to new data from Modern Hebrew.

3 *Et*-marked partitives in Modern Hebrew

3.1 Preliminary observations

In this paper, we argue that *et* in Modern Hebrew has a wider distribution than generally assumed, and that, under certain conditions, it optionally precedes partitive expressions. These are nominals that contain an overt partitive PP (an analogue of an *of*-phrase in English), headed by the preposition *me-* ‘of’/‘from’. In what follows, we will refer to such expressions as **overt partitives**. These should be contrasted with covert partitives, as in the Turkish example (14a) above. For example, (17), with an overt partitive object optionally preceded by *et*, is perfectly acceptable in colloquial Modern Hebrew.

- (17) ani lo makira (et) xeci me-ha-anašim po.
 I no know.SG.F ACC half of-the-people here
 ‘I don’t know half the people here.’

Examples of this kind are quite common. A simple web search yields numerous naturally occurring examples such as the ones in (18):

- (18) a. mitbarer še-hem makirim et xeci me-ha-anašim šam.
 turns_out that-they know.PL.M ACC half of-the-people there
 ‘It turns out that they know half of the people there.’⁶
- b. po et xeci me-ha-anašim ani lo mevin.
 here ACC half of-the-people I no understand.SG.M
 ‘I don’t understand half of the people here.’⁷
- c. haya kaše lešaxnea et xelex me-ha-tinokot limcoc.
 was hard convince.INF ACC part of-the-babies suck.INF
 ‘It was difficult to convince part of the babies to suck.’⁸

It should be noted that *et* is particularly likely to be attached to overt partitives in informal speech, although occasionally, marked partitives can also be observed in formal writing; thus, example (18c) is taken from a formal article on the Ynet website.

⁴ We remain agnostic regarding the precise structural analysis of such constructions.

⁵ See also de Swart (2003) for the role of object position in Spanish DOM.

⁶ <https://travelingelkins.wordpress.com/2007/07/08/94/>, accessed on 17.08.2016.

⁷ <https://www.fxp.co.il/showthread.php?t=16157657&page=5>, accessed on 17.08.2016.

⁸ <https://www.ynet.co.il/articles/0,7340,L-4007705,00.html>, accessed on 3.01.2011.

The combination of *et* with overt partitive objects is not accounted for in the literature, and even the existence of such constructions is only marginally acknowledged. The only exception is Danon (2001a), who points out that although partitive *et* constructions like the one in (19) are ruled out by prescriptive grammars, they may, in fact, be acceptable for some native speakers of Hebrew, with judgments being subject to considerable variation. Danon further notes that (19) “is possible only under the ‘specific’ reading of the object; when the partitive does not refer to any particular book, speakers will not use *et*” (p.42).

- (19) ?dan kara et exad me-ha-sfarim.
 Dan read ACC one of-the-books
 ‘Dan read one of the books.’ (original 4d)

Still, in a subsequent version of the paper, Danon (2002) treats examples like (19) as fully unacceptable. In a footnote, he adds that in colloquial speech, the prepositional partitive form is often confused with a different – albeit, superficially similar – construction, the construct state (CS). This is why sentences like (19) may, in fact, be occasionally produced. So in essence, their occurrence is explained away as an instance of a discrepancy between linguistic competence and performance. In what follows, we argue that these combinations are, in fact, licensed by the grammar of Modern Hebrew, although the degree of their acceptability is dependent on several factors. But first, we discuss in more detail the difference between overt partitives and CS nominals.

3.2 Overt partitives versus construct state nominals

As pointed out above, overt partitive phrases (20a, 21a) should be distinguished from construct state (CS) nominals headed by quantifiers (20b, 21b). While overt partitives contain a quantificational head followed by a PP-complement, CS nominals have a different structure. As stated by Danon (2013: 59), the latter are “usually characterized as a prepositionless genitival construction in which the lexical head [...] is immediately followed by an obligatory genitive NP/DP.” In addition, the head of a CS nominal may differ morphophonologically from the free quantifier in overt partitive constructions, e.g. the CS form *šlošet* in (21b) as opposed to the free form *šloša* ‘three’ (20a). Further, depending on the quantifier, a CS may either be synonymous with its overt partitive counterpart (20) or receive a different, non-partitive meaning (21).

- (20) a. exad me-ha-sfarim (overt partitive)
 one.M of-the-books.M
 ‘one of the books’
 b. exad ha-sfarim (CS)
 one.M the-books.M
 ‘one of the books’

- (21) a. šloša me-ha-sfarim (overt partitive)
 three.M of-the-books.M
 ‘three of the books’
- b. šlošet ha-sfarim (CS)
 three.M the-books.M
 ‘the three books’

CS nominals are characterized by the phenomenon of **definiteness spread**: the definiteness of the whole CS is determined by the innermost genitive nominal (in our examples, *ha-sfarim* ‘the books’) (e.g., Ritter 1991; Borer 1999; Wintner 2000; Dobrovie-Sorin 2000; 2003; Danon 2001b: 1080; 2010; Benmamoun 2003; Falk 2007; and the detailed review in Danon 2008). If the nominal is definite (i.e., contains the definite article *ha-* or is a proper name), then the whole CS is treated by the grammar as definite. Since definite objects are obligatorily preceded by *et* (Danon 2001a; 2002), this is what we observe with CS nominals.

Crucially, in this paper, we concentrate on overt partitives, which do not exhibit the CS structure. They differ from CS nominals morphophonologically, syntactically and, in many instances, semantically. Therefore, they require a separate treatment. Still, we will argue that overt partitives do share one property with CS-nominals: under certain conditions, they may allow for the syntactic definiteness feature of the embedded nominal to percolate to the higher phrase. A detailed analysis will be proposed in Section 7. Before going into the details of this analysis, we first focus on establishing the descriptive data.

3.3 Factors affecting *et*-marking

The goal of the experiment reported below was to determine (i) whether native speakers accept *et*-marked partitives and, if they do, (ii) which factors affect the acceptability of such phrases. On the basis of naturally occurring examples and informal acceptability data collected from native informants, it seemed that only overt partitives are compatible with *et*. This was the point of departure for the experimental investigation.

In addition to showing that partitivity licenses *et*, we wanted to see how partitivity interacts with two other factors: quantifier type and object position. With respect to quantifier type, Enç (1991) shows that in Turkish, there is a clear contrast between proportional quantifiers and cardinals with respect to case-marking (see discussion in Section 2.2 above.) A contrast between these types of expressions seems to exist in Hebrew as well. Specifically, naturally occurring examples with *et*-marked partitive objects typically contain inherently proportional quantifiers, such as *xeci* ‘half’, or a noun with a quantificational/proportional meaning, e.g. *xelek* ‘part’ (as in 18c above), rather than cardinals, which we observed very rarely in our web search.

An informal preliminary survey provided further support for this contrast. When asked to judge acceptability, native speakers preferred *et*-marked partitive objects that contained proportional, rather than cardinal, quantifiers. For example, they were more likely to accept the sentence with the proportional quantifier *xeci* ‘half’ in (22a) than the one with the cardinal *šaloš* ‘three’ in (22b).

- (22) a. Ori kara **et xeci me-ha-ma’amarim** lifnei šavua.
 Ori read.3.SG.M ACC half of-the-articles before week
 ‘Ori read half of the articles a week ago.’
- b. ??ha-yeled patax **et šaloš me-ha-dlatot** etmol.
 the-boy opened.3.SG.M ACC three of-the-doors yesterday
 ‘The boy opened three of the doors yesterday.’

With respect to object position, informal judgments by our consultants revealed that acceptance of sentences with partitive object DPs is considerably correlated with their position in the sentence. Specifically, sentences with partitive objects are generally judged to be more acceptable when the partitive DP appears in the sentence-initial position, rather than when it occupies the standard object position for Modern Hebrew, i.e., immediately following the verb. This is illustrated in the contrast between (23a) and (23b) below:

- (23) a. ?ha-marca pagša **et xelex me-ha-studentim** etmol.
 the-lecturer met.3.SG.F ACC part of-the-students yesterday
 ‘The lecturer met some of the students yesterday.’
- b. **et xelex me-ha-studentim** hamarca pagša etmol.
 ACC part of-the-students the-lecturer met.3.SG.F yesterday
 ‘Some of the students the lecturer met yesterday.’

The sentence with the preposed partitive object DP in (b) is judged by native speakers to be considerably better than its unmarked counterpart in (a). Again, examples from the web search provided further support for these intuitions, with a considerable number of tokens exhibiting the partitive DP in the sentence-initial position. This is illustrated by the examples in (24):

- (24) a. **et xelex me-ha-mekomot** anu regilim lir’ot bi-zman biluy leily.
 ACC part of-the-places we used-to.PL.M see.INF in-time pastime nightly
 ‘Part of the places we are used to seeing on nights out’.⁹
- b. **et xelex me-ha-dvarim** hu kotev be-ra’ad
 ACC part of-the-things he writes.SG.M in-shiver
 ‘Part of the things he writes with a shiver’.¹⁰

⁹ <https://travel.walla.co.il/item/2925151>, accessed on 11.02.2016.

¹⁰ <https://www.ynet.co.il/articles/0,7340,L-5360464,00.html>, accessed on 29.09.2018.

- c. **et kol exad me-ha-realm** nitan lerape [...] be-ezrat štiyat ha-mayim
 ACC all one of-the-poisons possible cure.INF in-help drinking the-water
 ‘Each of the poisons can be cured by drinking the water.’¹¹

Literature on Turkish provides further support for the interrelation between object position and DOM, as pointed out in Section 2.2 above (see also de Swart 2003 and López 2012 on Spanish).

Taken together, these findings provide initial support for the claim that certain types of indefinite object DPs, specifically, the partitive ones, constitute a licensing environment for *et*, and further, that the interaction of partitivity with quantifier type and object position has a considerable effect on acceptance. However, this is a hypothesis that requires stronger empirical support. To this end, we designed an experiment.

4 Methods

The main purpose of our experimental investigation is to systematically test the extent to which speakers of Modern Hebrew allow *et* in partitive contexts. Moreover, our experimental design aims to provide insight into the precise licensing environments, and in particular, how partitivity correlates with quantifier type and object position. Hence, based on the preliminary observations on Modern Hebrew discussed above, as well as literature on DOM in other languages, we identified three experimental variables: partitivity, quantifier type, and object position.

In addition, we wanted to test whether Hebrew DOM is sensitive to partitivity per se, or rather specificity in the broader sense.¹² Since the latter notion is highly complex and controversial (cf. e.g. Farkas 2002; von Heusinger 2002; for discussion), and this controversy is not the main focus of our investigation, we did not manipulate all the types of specificity discussed in the literature. Instead, we contrasted simple unmodified indefinites (e.g. *asara sratim* ‘ten movies’) with indefinites containing extra modifying material, mostly relative clauses, which made a specific, identifiable interpretation particularly plausible (e.g. *asara sratim še-himlicu aleihem* ‘ten movies that have been recommended’).¹³ Such objects were (at least plausibly) speaker identifiable, took wide scope, and could thus be analyzed as specific in several different senses (scopal, epistemic and relational specificity). Importantly, though, they were not partitive.

¹¹ <http://www.baba-mail.co.il/content.aspx?emailid=38296>, accessed on 22.08.2016.

¹² Thus, von Heusinger & Kornfilt’s (2005) claim that Turkish DOM is sensitive to relational, and not only partitive, specificity.

¹³ Cf. e.g. Guntsetseg et al. (2008) and Kagan (2011) for ways in which relative clauses interact with DOM and specificity.

4.1 Participants

The study sample included 41 participants (M/F = 29%/71%) recruited online from all across Israel. Several preliminary questions probed participants' basic biographical details (gender, age, mother tongue). The final preliminary question ensured that only monolingual Hebrew speaking participants could proceed with the survey. Speakers who indicated early and systematic exposure to an additional mother tongue along with Hebrew were not permitted to participate.

The age of the participants ranged between 18 and 67 years old, comprising the following age groups:¹⁴

18–27 years (n = 15, 37%)

28–37 years (n = 8, 20%)

38–47 years (n = 11, 27%).

48 years and older (n = 7, 17%)

4.2 Design and material

In our design, we manipulated the following variables, as discussed above: partitivity (partitive vs. non-partitive), quantifier-type (proportional vs. cardinal), and object position (unmarked vs. preposed). In addition, within the non-partitive items, we manipulated specificity. The experimental manipulations yielded the following six conditions, presented in the **Table 1** below, along with examples.¹⁵

This design yielded the following six experimental conditions:

Condition 1: Partitive proportional unmarked

Condition 2: Partitive proportional preposed

Condition 3: Partitive cardinal unmarked

Condition 4: Partitive cardinal preposed

Condition 5: Non-partitive specific

Condition 6: Non-partitive non-specific

¹⁴ To be clear, these figures merely show the relative distribution of the various age categories within the general participant population; participants were not actually divided into age groups.

¹⁵ We did not test the acceptability of partitive objects without *et*, such as in (i).

(i) Raiti xelek me-ha-studentim.
saw.1.SG part of-the-students
'I saw part of the students.'

Since informal native judgments were overwhelmingly clear about the acceptability of such constructions, an experimental probe would have been redundant.

Partitive	Proportional	Unmarked	ha-marca pagša et xelek me-ha-studentim etmol. the-lecturer met.3.SG.F ACC part of-the-students yesterday 'The lecturer met some of the students yesterday.'
		Preposed	et xelek me-ha-studentim ha-marca pagša etmol. ACC part of-the-students the-lecturer met.3.SG.F yesterday 'Some of the students the lecturer met yesterday.'
	Cardinal	Unmarked	ha-yeled patax et šaloš me-ha-dlatot etmol. the-boy opened.3.SG.M ACC three of-the-doors yesterday 'The boy opened three of the doors yesterday.'
		Preposed	et šaloš me-ha-dlatot Galit patxa etmol. ACC three of-the-doors Galit opened.3.SG.F yesterday 'Three of the doors Galit opened yesterday.'
Non-partitive	Specific	*Noga kanta et šnei ca'acu'im šerainu Noga bought.3.SG.F ACC two toys that-saw.1.PL 'Noga bought the two toys we saw.'	
	Non-specific	*Roe kana et šnei ca'acu'im Roe bought.3.SG.M ACC two toys 'Roe bought (the) two toys.'	

Table 1: Experimental design and example material.

As can be seen from **Table 1**, the structure of the experimental sentences in the four partitive conditions was kept uniform in order to provide minimal pairs, which will allow us to systematically probe the exact effect of each experimental manipulation. Differences within and across conditions were restricted to using a variety of lexical items in the relevant positions (subject, object, verb, quantifier, temporal phrase). This was done with two different goals in mind: first, in order to control for possible effects of exact repetition, which could lead to boredom as well as to the development of a strategy on the part of the participant. Second, we wanted our data to cover a wide range of lexical items, especially the various quantifiers, which would allow us to make nuanced generalizations regarding the phenomenon.

There were five items in each experimental condition as well as ten sentences with definite objects (five preposed and five unmarked) that served as fillers.

4.3 Procedure

Using the Qualtricssm platform, an online anonymous survey was designed, in which participants were asked to judge as quickly as possible whether the sentences presented to them were grammatical in Hebrew. Specifically, the instructions (translated from Hebrew) for the

participants stated that “for each sentence you hear, you need to determine if it is a sentence you would expect to hear from a native Hebrew speaker”. We asked for a quick judgment in order to encourage speakers to provide their first, most intuitive response. The experimental stimuli were comprised of audio recordings of the test sentences and the fillers (see **Table 1**), read out loud by a native Hebrew speaker. The reason for using audio, rather than written, stimuli is that we are interested in how DOM is manifested in spoken Hebrew; audio recordings are therefore the most suitable mode of stimuli presentation. Participants were asked to note their answers on a 5-point Likert scale, which stated the following options: 1 = *behexlet lo* (‘definitely not’), 2 = *nire li še-lo* (‘I think not’), 3 = *lo yode/yoda’at* (‘don’t know’), 4 = *nire li še-ken* (‘I think yes’), 5 = *behexlet ken* (‘definitely yes’).

We tried to counterbalance acceptability, such that approximately half the items would be rated on the low end of the scale (1–2), and half the items would receive relatively high ratings (4–5). For many of the experimental items, we could not be sure, prior to testing, how speakers would actually rate them; nonetheless, we relied on the native intuitions of the authors to ensure a rough balance between high and low ratings. The filler items were supposed to provide the clear-cut cases: grammatical and ungrammatical, and so they were equally balanced between categorically grammatical and categorically ungrammatical. Randomization was done automatically via the Qualtricssm online survey software.

5 Results and analysis

The first question we wanted to probe was the effect of partitivity on acceptance of objects with *et*. In order to test that, we collapsed the data from all the sentences with a partitive noun phrase (conditions 1–4) and compared them with speakers’ ratings of all sentences from the two non-partitive conditions (condition 5–6). The average ratings for partitive versus non-partitive conditions is summarized and plotted in **Figure 1** below:

As is immediately apparent from **Figure 1**, there is a clear contrast between sentences with partitive noun phrases and those with non-partitive DPs, with average ratings of 3.26 for the former versus 1.31 for the latter. In order to verify the significance of this contrast, we used a linear mixed model for repeated measures, which was followed by a simple effects analysis using Bonferroni correction for multiple testing. P-value ≤ 0.05 was considered statistically significant. All analyses were done using SPSS21 Software. Effect sizes were calculated by converting the F statistic of the significant effects into Pearson’s *r* (see Field 2009: 448), and were interpreted as small ($r = 0.1$ – 0.3), medium ($r = 0.3$ – 0.5) and large ($r > 0.5$) (see Field 2009: 57).¹⁶

¹⁶ The same analyses were performed throughout.

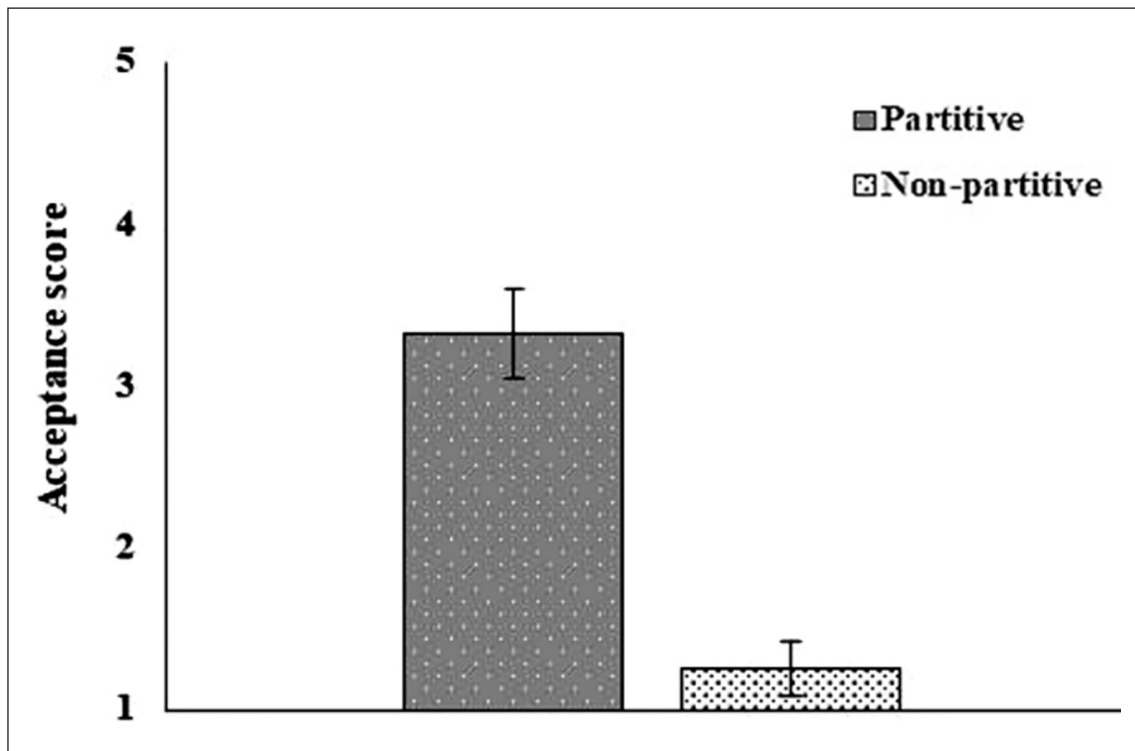


Figure 1: Average acceptability ratings for partitive/non-partitive conditions. Error bars are 95% CIs.

The analysis revealed a significant main effect for item type ($F(1,36) = 194.53$, $p < 0.001$) with a large effect size ($r = 0.92$), indicating an overall higher acceptance score for the partitive items ($M = 3.33$, $SE = 0.14$), compared to non-partitive items ($M = 1.26$, $SE = 0.08$). The main effect for age was not significant ($F(4,36) = 1.07$, $p = 0.39$), nor was the interaction effect between item type and age ($F(4,36) = 0.49$, $p = 0.74$).

Next, we wanted to explore partitive DPs in more detail. Specifically, we wanted to find out the extent to which quantifier-type and word-order contribute to the acceptability of case-marked partitive noun phrases, and whether one has a larger effect than the other. We therefore needed to examine the mean acceptability ratings of proportional versus cardinal quantifiers, as well as the comparison between partitive items in which the DP appears in the unmarked order, and those in which the DP is preposed.

Starting with average responses to proportional vs. cardinal DPs, which are presented in **Figure 2** below, we can see that the average acceptance rating for DPs with proportional quantifiers was considerably higher (3.72) than those with cardinal quantifiers (2.80).

The statistical analysis revealed a significant main effect for item type ($F(1,36) = 47.72$, $p < 0.001$) with a large effect size ($r = 0.75$), indicating an overall higher acceptance score for the partitive-proportional items ($M = 3.82$, $SE = 0.16$), compared to partitive-cardinal items ($M = 2.83$, $SE = 0.15$). The main effect for age was not significant ($F(4,36) = 0.68$, $p = 0.61$), nor was the interaction between item type and age ($F(4,36) = 0.21$, $p = 0.93$).

Let us now turn to the role of object position in the licensing of *et*. As is demonstrated in **Figure 3** below, the mean acceptability ratings of the unmarked object position (2.80) are clearly lower than those in which the DP is preposed (3.71).

The analysis revealed a significant main effect for item type ($F(1,36) = 137.99$, $p < 0.001$) with a large effect size ($r = 0.88$), indicating an overall higher acceptance score for the partitive-preposed items ($M = 3.87$, $SE = 0.15$), compared to partitive-unmarked items ($M = 2.78$, $SE = 0.14$). Like in the analyses of the two previous data sets, the main effect for age was not significant ($F(4,36) = 0.68$, $p = 0.61$); however, the interaction between item type and age was significant ($F(4,36) = 6.04$, $p = 0.001$). The simple effects analysis revealed a greater acceptance score for the older participants (58–67 years old) within the

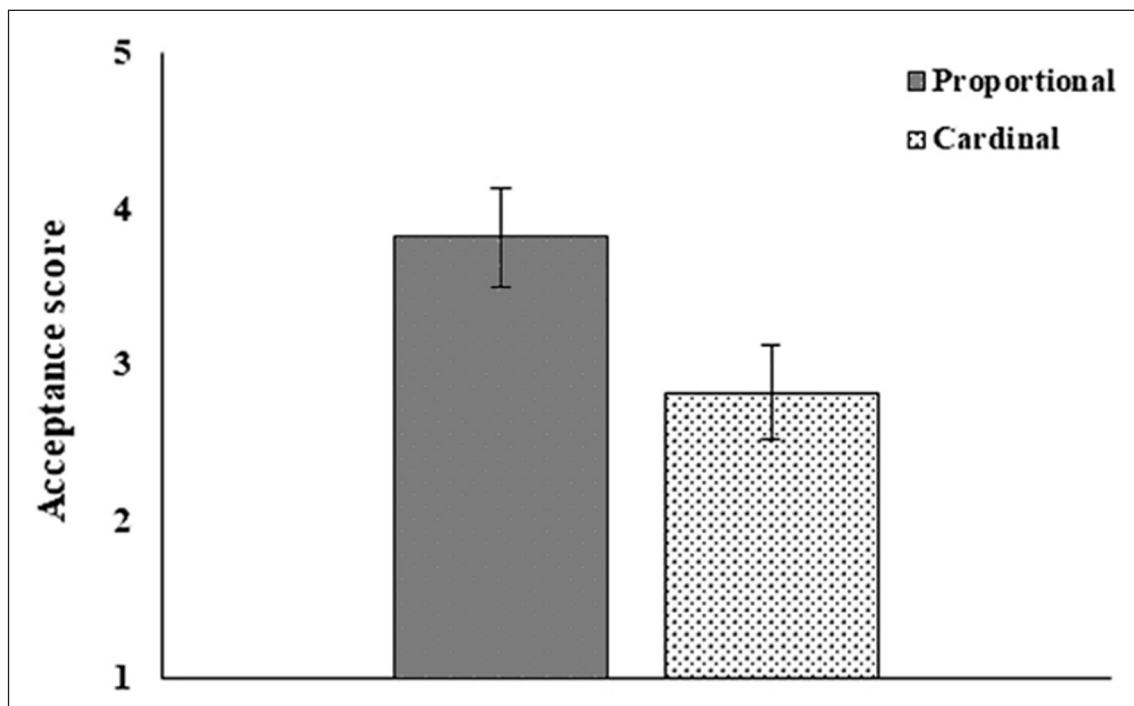


Figure 2: Average acceptability ratings for proportional/cardinal quantifiers within the partitive conditions. Error bars are 95% CIs.

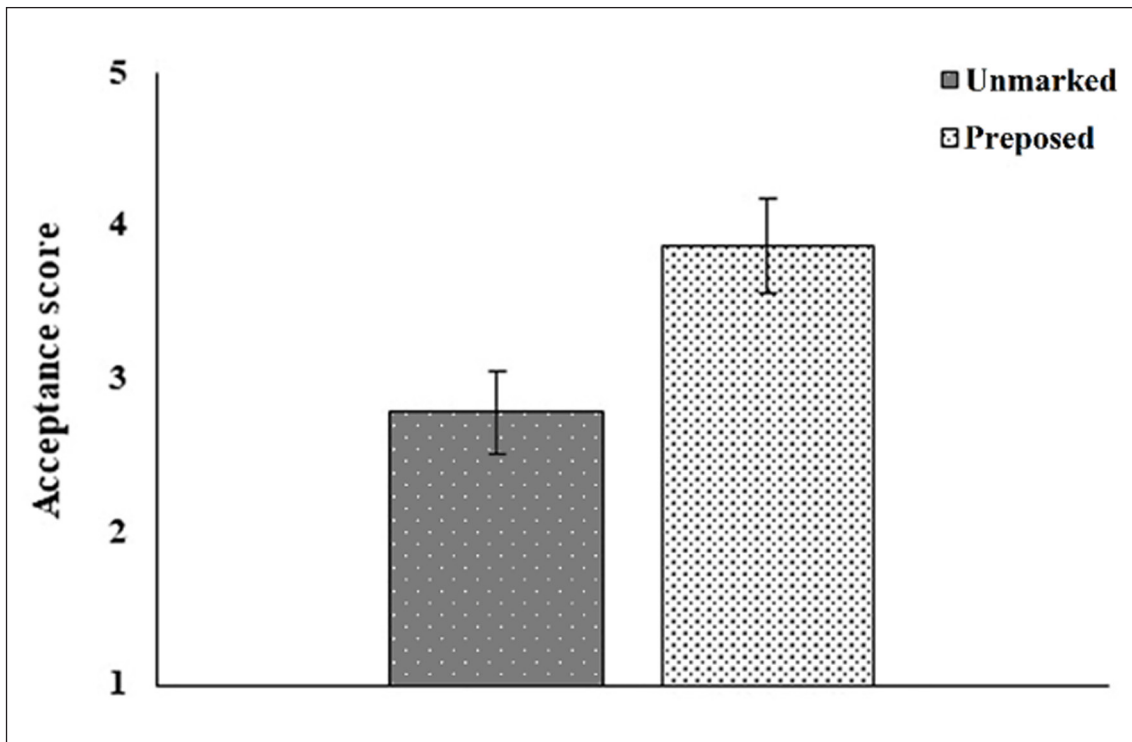


Figure 3: Average acceptability ratings for object position (unmarked/preposed) within the partitive conditions. Error bars are 95% CIs.

preposed items, while within the unmarked items their acceptance score was lower, compared to the younger participants (28–47 years old). These differences, however, did not reach the Bonferroni-corrected significance level.

Table 2 presents detailed descriptive statistics along with error measures for all analyses described above.

In sum, our data reveal large main effects for all the experimental variables tested, namely, partitivity, quantifier-type, and object position. In addition, we did not find a main effect of age in any of the two-way comparisons we conducted, but the interaction between item type and age was significant within the object position analysis, although it did not reach statistical significance. We should qualify here that the findings regarding the potential effect of age on the pattern of judgments should be taken with reserve, since, as described in the methods section above, participants were not asked to provide exact age, but rather indicate which age group they belong to. It is, nonetheless, interesting that we did find some effect of age on judgments of preposed vs. unmarked sentences.

Measure	n	Mean	SD	Min.-Max.	SE	95% CI
Partitive	41	3.33	0.87	1.55–4.25	0.14	3.05–3.60
Non-partitive	41	1.26	0.54	1.00–2.90	0.08	1.09–1.43
Proportional	41	3.82	1.03	1.40–5.00	0.16	3.50–4.15
Cardinal	41	2.83	0.94	1.00–3.90	0.15	2.53–3.13
Unmarked	41	2.78	0.86	1.40–3.90	0.14	2.51–3.05
Topicalized	41	3.87	0.98	1.70–4.80	0.15	3.56–4.18

Table 2: Summary of statistical analysis per condition.

6 General discussion: *et*-partitives in Modern Hebrew

Our results reveal that the marker *et* is indeed compatible with partitive objects in Modern Hebrew. Almost all participants provided high ratings for *et*-marked partitives, under the conditions specified above and discussed below. For example, the mean rating for a sentence in which *et* marks a preposed partitive object with a proportional quantifier (such as 23b, repeated below as 25) is significantly higher than the average value of an a priori ungrammatical sentence in which *et* combines with an indefinite, non-partitive, non-specific object (e.g. 26). While the former sentence type has an average rating of 4.06, the latter was rated at 1.27, on average.

(25) **et xelex me-ha-studentim** ha-marca pagša etmol.
 ACC part of-the-students the-lecturer met.3.SG.F yesterday
 ‘Some of the students the lecturer met yesterday.’

(26) *Roe kana **et šnei ca’acu’im**.
 Roe bought.3.SG.M ACC two toys
 ‘Roe bought (the) two toys

Nonetheless, it should be noted that the average evaluation of (25)-type sentences with marked partitive objects is still lower than that of “perfect” sentences, in which *et* precedes definite DPs, e.g. (27). The mean rating for this sentence type is 4.46.

(27) Keren sagra **et šnei ha-xalonot**.
 Keren closed.3.SG.F ACC two the-windows
 ‘Keren closed the two windows.’

The somewhat degraded judgments of *et*-marked partitives are, we propose, partly due to the fact that phrases of this kind are observed mainly in informal speech. Danon (2001a) points out that such uses of *et* are disallowed by prescriptive grammars. This may cause those speakers who are guided by the prescriptive approach to language to judge such phrases as imperfect, not

conforming to the “correct” standards of formal language. An additional reason for variation in native speaker judgments will be presented in Section 7.

Let us now turn to those factors that affect the acceptability of the object marker. We should start with the observation that the DP – if not overtly definite – has to be an overt partitive with a *me*-phrase. As shown in **Figure 1** above, non-partitive indefinites with *et* received extremely low evaluations (1.31). Such indefinites were rated low even when the test item included a relative clause, which made a specific reading of the DP particularly plausible. Still, as the average rating of (1.35) demonstrates, this kind of modification had little effect on acceptability. This, in turn, strongly suggests that *et* is not licensed by *just any* type of specificity; rather, it is sensitive specifically to partitivity.

In addition to partitivity, the quantifier type further affects the acceptability of *et* marking. The nature of partitive nominals is proportional by definition: they denote a subset of a certain, contextually supplied, set. Still, proportional quantifiers, such as *xeci* ‘half’, are preferred over cardinal ones, e.g. numerals such as *šaloš* ‘three’ (cf. **Figure 2** above). Finally, the position of the object constitutes a significant factor: preposing increases the acceptability of *et*-marking with partitives (**Figure 3**).

Lastly, let us consider the three effect sizes. As the statistical analysis revealed, the three variables (partitivity, object position, quantifier type) all had a large effect size; nonetheless, those were not identical. Rather, a direct comparison of the effect sizes of partitivity ($r = 0.92$), object position ($r = 0.88$), and quantifier-type ($r = 0.75$) suggests a sort of hierarchy, in which partitivity is the most important contributor to acceptability, followed by object position, and then quantifier-type.

7 Two types of partitives: a syntactic analysis

Our experimental results indicate that Hebrew objects can be divided into three, rather than two, groups, as far as the distribution of *et* is concerned. With definite objects, *et* is obligatory, with indefinite ones, it is unacceptable, and with partitive objects, *et* is optional; moreover, its compatibility with the latter group is subject to considerable variation in native speaker judgments. How do we account for the behavior of partitive nominals, and can we reconcile it with the previously proposed approaches to *et*?

7.1 Partitives as subjects

In order to answer these questions, it is important to consider previous literature on the syntax of partitive nominal expressions. Crucially for the present study, a certain kind of duality characterizing the behavior of partitives has already been observed. Specifically, when such nominals appear in subject position, they can trigger two distinct patterns of verb agreement.

Descriptively speaking, the predicate may agree either with the embedded nominal that merges with the partitive preposition (e.g., *me-* in Hebrew, or *di/de* in Italian) or with the noun/quantificational expression that appears to the left of the preposition and seems to constitute the head of the partitive (cf. e.g., Danon 2013; Manzini & Franco 2019; and references therein). This duality is illustrated in (28) for Italian and (29) for Hebrew.

- (28) Una parte di/dei senatori si è astenuta / sono astenuti.
 a part.F.SG of/of.the senator.M.PL self is abstained.F.SG / are abstained.M.PL
 ‘A part of the senators has/have abstained.’
 (Manzini & Franco 2019: 36)

- (29) xelek me-ha-studentim kara / kar'u et ha-ma'amar.
 part.SG.M of-the-students.M.PL read.3.M.SG / read.3.PL ACC the-paper
 ‘a part of the students has/have read the paper.’

Thus, in (28), the predicate may agree either with the nominal (*una parte* ‘(a) part’, in which case it carries the features [feminine], [singular], or with the embedded noun *senatori* ‘senators’, in which case it is realized as [masculine], [plural]. Analogously, in (29), the verb agrees either with the quantificational element *xelek* ‘part’ and surfaces as the [3rd person], [masculine], [singular] *kara*, or with the embedded nominal *ha-studentim* ‘the students’, in which case it appears in the [3rd person], [plural] form *kar'u* (Hebrew verbs do not carry a gender feature in the 3rd person past tense). Crucially, both Danon (2013) and Manzini & Franco (2019) argue that, at least in the corresponding languages, the second pattern does not constitute an instance of so-called **semantic** agreement, but rather, instantiates (morpho-)syntactic agreement of the predicate with a plural nominal.

In what follows, we concentrate on the Hebrew data which, we believe, are best accounted for within Danon’s (2013) approach.¹⁷ Following Wechsler & Zlatić (2000; 2003), among others, Danon proposes that Hebrew nominal expressions carry two sets of syntactic agreement features: index and concord. The two sets, which prototypically match, differ in the following way:

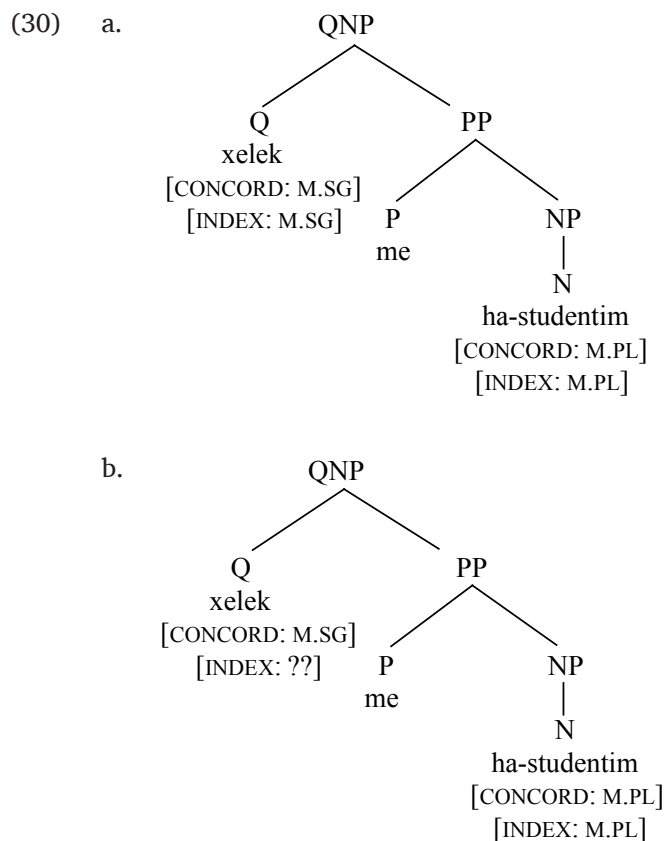
Index features constrain the NP’s referential index, and are relevant to pronoun binding and subject–predicate agreement.

Concord features are more closely related to the noun’s morphology, and are relevant to NP-internal concord.

(Danon 2013: 74)

¹⁷ All the examples below are restricted to 3rd person. Therefore, for the sake of simplicity, we will exclude person features from the explicit discussion.

Crucially, the index features of a quantifier may either be determined in the lexicon or left unspecified. In the former case, they will match the concord features and will correspond to those morphological characteristics that we observe on the Q. In the latter case, the quantifier enters the derivation with unvalued features, which are then valued **via agreement with the embedded NP**. As a result, the index features of Q will match the index features of the NP but may differ from the concord features of Q. Let us see how this works using the example in (29). The subject is compatible with the following two structures:



In (30a), *xelek* ‘part’ enters the derivation with both concord and index features valued as [masculine] and [singular]. The phrase as a whole is specified as carrying the same features. We remain agnostic as to whether a DP is projected above the QP or whether the partitive is allowed to remain “smaller” than a DP. Therefore, following Danon, we will descriptively refer to the maximal partitive phrase as QNP. Importantly for our purposes, whatever its precise syntactic nature, the QNP will inherit the concord and index features of Q.

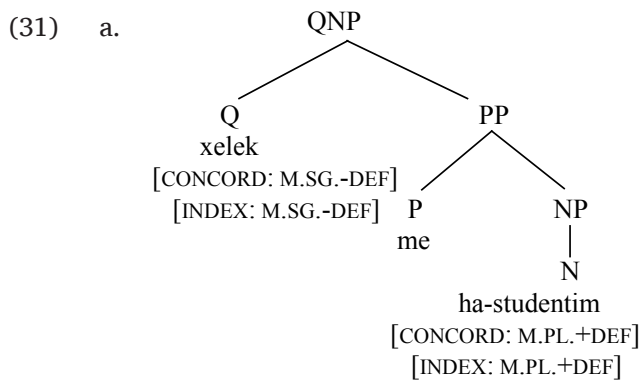
Let us now consider the slightly more complex story in (30b). Here, the head of the partitive phrase enters the derivation with its index features unvalued. They therefore probe for the index features of the NP *ha-studentim* ‘the students’. This results in percolation: the Q “receives”

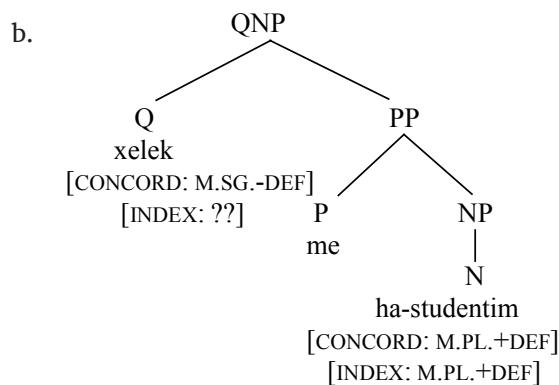
the index features of the embedded NP, namely, [masculine], [plural]. The features of the Q are, again, inherited by the QNP. Note that the concord features of the Q are still [masculine], [singular]. This can be observed when the quantifier is modified by an adjective, as in, e.g., *xelek gadol* ‘big part’, where the adjective *gadol* ‘big’ receives the [masculine], [singular] features via agreement.

What happens, then, when such a partitive expression appears in the subject position? Crucially, according to Danon’s analysis, subject-verb agreement is always based on the **index features of the QNP**. Thus, finite T enters into an agreement relation with the subject and, as a result, carries the same features as specified in the **index** of the subject. Therefore, the properties of T (and, correspondingly, the form of the verb) will depend on whether the subject carries the structure in (30a) or (30b). In (30a), the index features of the subject are [masculine], [singular], and we get the masculine singular verb *kara* ‘read’. In (30b), the index features of the QNP are [masculine], [plural]; hence, the verb surfaces as the plural *kar’u*. It is important to emphasize that T never agrees with the embedded NP; it always enters into an agreement relation with the **entire** QNP. The false impression that agreement is sometimes with the embedded nominal results from the fact that the index features of the QNP may be “inherited” from that nominal.

In what way is this story relevant for the distribution of *et*? In order to explain this, we have to add one last piece to the puzzle: the role of definiteness in the above-discussed constructions. As pointed out at the beginning of this paper, Danon (2001b) argues convincingly that definiteness should be treated as a syntactic feature in Hebrew, a feature whose presence does not always correlate with semantic/pragmatic definiteness. We know that Hebrew exhibits definiteness agreement (cf. example 5 in Section 2.1). It is therefore only natural to add the definiteness feature to our agreement pattern, in addition to gender, number and person. While definiteness is irrelevant for subject-verb agreement (since this feature is not carried by T), we will soon see that it is relevant for the distribution of *et* (even with partitives).

We therefore propose to update the trees in (30) as represented in (31). The only difference between them is the addition of a definiteness feature (both in concord and in index).





In (31a), *xelek* is specified as [– definite]: it does not carry a definite article *ha-* (which we, following Danon 2008, analyze as a realization of the definiteness feature), nor is it inherently definite like pronouns or proper names. This holds for both its concord and index features. But (31b) exhibits a different configuration: here, the definiteness index feature of *xelek* is unvalued. As a result, similarly to number and gender features, it gets valued via the Agree relation with the embedded NP *ha-studentim* ‘the students’, which is, crucially, definite. In other words, *xelek* ends up as [+ definite], and consequently, so does the QNP as a whole.

7.2 Partitives as objects

Suppose now that the expression *xelek me-ha-studentim* ‘part of the students’ is merged in the object position. Under the structure in (31a), this phrase is indefinite, which means that it will not be marked by *et*. However, in (31b), the object is definite (as far as its index properties are concerned,¹⁸) and consequently, *et*-marking surfaces. Given this duality, we expect *et*-marking to be “optional” with partitive QNP objects, since its appearance will depend on whether the Q head enters the derivation with its features valued (31a) or unvalued (31b). This is exactly what we observe:

- (32) pagašti (et) xelek me-ha-studentim.
 met.1.SG ACC part of-the-students.M.PL
 ‘I met a part of the students.’

As such, the optionality of *et* in constructions like (32) provides novel evidence for the dual syntactic nature of partitive nominals, on a par with the agreement variation illustrated in (28) and (29) above. We are dealing with the same type of duality, which is expressed in different ways depending on whether the nominal occupies the subject or the object position. While

¹⁸ Given that concord features are mainly responsible for NP-internal agreement, whereas index plays a role in the relations between the nominal and other parts of the sentence, it makes sense to expect that *et*-marking will be determined by index, rather than concord, features, in case of a mismatch between the two.

Modern Hebrew does not normally exhibit object agreement (instances thereof are very rare and are perceived by speakers as archaic), the existence of the syntactic definiteness feature and its interaction with DOM makes the structural “ambiguity” of partitives perceivable.

The proposed analysis captures both the acceptability of *et* with partitive objects and its “optionality”. The property to which *et* is sensitive is still definiteness, in accordance with the common assumption made in the literature. Moreover, this is syntactic definiteness, as argued by Danon (2001b). Since partitive objects may be syntactically definite, *et* is acceptable. Since identically sounding objects may also be syntactically indefinite, *et* seems to be optional, although, in fact, its presence is either obligatory or impossible, depending on the structure. It is also worth noting that considerable variation in native speakers’ judgments regarding the acceptability of *et* with partitives is reminiscent of the previously reported variation in judgments regarding the preferred subject-verb agreement pattern with QNPs (Danon 2013). Apparently, individual speakers differ in whether they prefer the (31a) or (31b) structure.

In addition, the proposed account correctly predicts the incompatibility of *et* with covert partitives (i.e., indefinite expressions that are interpreted as partitives in a given context), or indefinites which are specific in some other sense (e.g. take wide scope or refer to an individual that is familiar to the speaker). For instance, in a sentence like (33), *et*-marking results in ungrammaticality, independently of the interpretation of the object. That is, even if the toys in question form a subset of a bigger set of toys that has been previously mentioned in the discourse, (33) remains entirely unacceptable. In this respect, Hebrew differs dramatically from Turkish, in which partitive **interpretation** (and possibly other types of specific interpretation) is sufficient to license accusative-marking (cf. 14a above).

- (33) *Roeē kana et šnei ca’acu’im
 Roeē bought.3.SG.M ACC two toys
 ‘Roeē bought (the two) toys.’

Under the proposed analysis, the ungrammaticality of (33) is predicted since, no matter how the object is interpreted in the discourse, syntactically, it does not contain an embedded definite nominal whose [+ definite] feature could potentially percolate and trigger *et*-marking. In other words, while DOM in Turkish is sensitive to the semantic **interpretation** of the object, Hebrew DOM is entirely determined by the syntactic **structure**.

7.3 Partitive objects: additional considerations

Finally, we briefly relate to two additional tendencies that our experiment has revealed. Future research is needed in order to provide an exhaustive explanation of these tendencies; here, we lay out several preliminary points.

7.3.1 Cardinals vs proportional quantifiers

Our results show that *et* is preferable with partitives headed by proportional quantifiers (e.g. *xelek* ‘part’, *xeci* ‘half’), rather than cardinal numerals (e.g. *šloša* ‘three’, *esrim* ‘twenty’). The corresponding acceptability ratings are 3.72 for proportional Qs and 2.80 for cardinals. We can conclude that *et*-marking with cardinals, while not entirely impossible, is degraded.

It is important to point out that agreement-related properties of Hebrew cardinals are complex and not fully understood. To illustrate, cardinals clearly lack inherent gender features, but rather, agree in gender with the noun they take as a complement. It thus seems that both their concord and index gender features enter the derivation unvalued. But the situation with number is different. (34) below shows that in case of a discrepancy between the number of the cardinal and that of the embedded NP (which is only observed with the numeral *exad* ‘one’), the verb has to agree with the former. Thus, it has to be singular, as in (34). This suggests that the cardinal obligatorily enters the derivation with a specified value for its index number feature (this is why the number of the embedded NP cannot go through.) We thus observe that number and gender features behave non-uniformly. It still remains to be determined how definiteness behaves in this respect.

- (34) *exad me-ha-yeladim ra’a / *ra’u seret.*
 one of-the-kids.PL.M saw.SG.M saw.PL movie
 ‘One of the kids saw a movie.’¹⁹

One important contrast between proportional and cardinal quantifiers in Hebrew is related to the fact that only the former have noun-like grammatical properties (e.g. Danon 2013). We tentatively propose that while the former systematically carry a definiteness feature (either [+ definite] or [– definite]), cardinals generally lack this feature altogether.²⁰ Therefore, as a rule, the definiteness feature of the embedded NP in a partitive construction will not percolate to the cardinal (which is just unable to “accept” this feature). The QNP will consequently not be marked as definite, and *et* will be unacceptable.

Of course, this view raises the question of why some people do occasionally judge *et*-marked partitives with cardinals as possible (although recall that the average rating is lower than 3.) We tentatively suggest that this is an instance of overgeneralization. Both *et*-marked partitives and cardinals with the definiteness feature are attested in the grammar (the former with proportional Qs, the latter in construct state nominals, cf. footnote 20). Therefore, speakers may occasionally overgeneralize, accepting *et*-marked partitives with cardinals. The marginality of this construction is reflected in the low average ratings we elicited, as well as in the rarity of such naturally

¹⁹ We thank Jordan Vardi and Danielle Eitan for this example.

²⁰ An exception is posed by cardinals that head construct state nominals, but such expressions are known to be special in a whole range of respects.

occurring examples in the Google search we conducted. We leave a more detailed investigation of agreement and definiteness-related properties of Hebrew cardinals for future research.

7.3.2 The position of the object in the sentence

In addition to the interesting contrast between proportional and cardinal quantifiers, our data have also shown that preposing increases the acceptability of *et*-marking with partitives. It is important to point out that in this respect, Hebrew seems to pattern together with several other DOM languages. Thus, in a number of DOM languages, the marked form is more likely when the object appears in a non-standard position. For instance, as discussed in Section 2.2 above, unmarked objects are only acceptable in the canonical object position in Turkish. Consider also the following example from Spanish:

- (35) a. el entusiasmo vence (a) la dificultad
 the enthusiasm conquer.3.SG (to) the difficulty
 ‘Enthusiasm conquers difficulties.’
- b. A la dificultad vence el entusiasmo
 to the difficulty conquer.3.SG the enthusiasm
 ‘Enthusiasm conquers difficulties.’

(De Jong 1996, quoted by de Swart 2003: 31)

The two sentences differ only in the fact that in (35a), the object occupies the canonical object position (following the verb) whereas in (35b), it appears sentence-initially. Crucially, while in (35a) the object case-marker *a* is optional, in (35b) it is obligatory. Once again, we see that the likelihood of overt marking increases when the object appears in a non-prototypical position.

This pattern can be accounted for under the approach that takes object marking in DOM languages to fulfill a discriminatory function: a highly individuated, prominent object may potentially be confused with a subject, and it is therefore particularly important to overtly mark it as the object (cf. e.g. Aissen 2003; de Swart 2003; 2007; and references therein). This way, potential ambiguity is avoided. In both Spanish and Modern Hebrew, subjects appear sentence-initially under the unmarked word order. Therefore, when the object is preposed, the use of an overt accusative marker is particularly helpful for processing. It signals to the addressee that the sentence-initial phrase functions as the object, rather than the subject.

Even if the disambiguation approach to DOM is rejected (see von Heusinger & Kornfilt 2005, for arguments against this line of analysis), Hebrew, at least descriptively, resembles other DOM languages in that the use of the object marker is more prevalent in the non-canonical position.

8 Summary and conclusion

In order to determine the distribution of *et* with partitive expressions, we conducted a systematic experimental investigation. Our test items consisted of sentences with objects preceded by *et*. We manipulated the following variables: partitivity (partitive vs. non-partitive), quantifier-type (proportional vs. cardinal), and object position (unmarked vs. preposed). In addition, within the non-partitive items, test items varied between simple unmodified indefinites (e.g. *asara sratim* ‘ten movies’), and indefinites containing extra modifying material, mostly relative clauses, which made a specific, identifiable interpretation particularly plausible (e.g. *asara sratim še-himlicu aleihem* ‘ten movies that have been recommended’). These experimental manipulations resulted in six conditions. There were five items in each experimental condition, as well as ten sentences with definite objects (five preposed and five unmarked), that served as fillers. Using the Qualtricssm online survey software, 41 native Hebrew speaking participants were presented with audio recordings of the test and filler items, and asked to rate their acceptability on a 5-point Likert scale, with 1 = totally unacceptable and 5 = totally acceptable.

Our results revealed that, as predicted, partitive items received significantly higher scores than non-partitive items, with average ratings of 3.6 versus 1.3, respectively. Within partitive items, we also found that preposing further increases acceptability, as indicated by the average ratings of preposed (3.71) vs. unmarked partitive items (2.80). Results on quantifier-type were essentially identical, with significantly higher acceptance of proportional quantifiers (3.72) vs. cardinals (2.80).

Based on Danon’s (2013) analysis of partitive nominals, we proposed that their Q head (mainly as long as N-like proportional quantifiers are concerned) may enter the derivation either with a specified or with an unvalued definiteness index feature. In the former case, the partitive nominal is syntactically marked as indefinite. In the latter, the [+definite] feature of the embedded NP percolates to the Q head, and the QNP is marked as definite. This results in the dual pattern observed with partitive objects: sometimes they are marked with *et* and sometimes, they remain unmarked. Individual speakers may prefer different patterns, just as they prefer different patterns of subject-verb agreement. Future research is needed in order to establish whether there is indeed a systematic correlation between individual speakers’ preferences in terms of *et*-marking and their subject agreement patterns with partitive nominals.

Indefinite objects that do not contain a partitive *me*-phrase cannot be *et*-marked since, whichever interpretation they receive, they do not contain a definite nominal that could enter into an Agree relation with the quantifier. Further, *et*-marking tends to be unacceptable with numeral heads since cardinal numerals do not, as a rule, carry a definiteness feature.

In sum, we have extended the empirical and theoretical discussion of the distribution of the Hebrew DOM marker to include partitive objects. We have argued that, despite not exhibiting the

classical characteristics of definite nominals, certain partitives do carry a syntactic definiteness feature and therefore license *et*-marking. This account successfully maintains the generalization that Hebrew DOM is determined by (syntactic) definiteness.

Abbreviations

DOM = Differential Object Marking, ACC = Accusative, NP = Noun Phrase, DP = Determiner Phrase, PP = Prepositional Phrase, QP = Quantifier Phrase, QNP = maximal partitive phrase, Q = quantifier, 1 = 1st person, 2 = 2nd person, 3rd = third person, SG = singular, PL = plural, F = feminine, M = masculine, INF = infinitive, NOM = nominative, GEN = genitive, DAT = dative, ABL = ablative, AGR = agreement, CS = construct state.

Competing Interests

The authors have no competing interests to declare.

References

- Aissen, Judith. 2003. Differential object marking: Iconicity vs. economy. *Natural Language & Linguistic Theory* 21(3). 435–483. DOI: <https://doi.org/10.1023/A:1024109008573>
- Armon-Lotem, Sharon & Avram, Idit. 2005. The autonomous contribution of syntax and pragmatics to the acquisition of the Hebrew. In Di Sciullo, Anna Maria (ed.), *UG and External Systems: Language, Brain and Computation*, 171–184. Amsterdam: John Benjamins. DOI: <https://www.jbe-platform.com/content/books/9789027294524-la.75.11arm>
- Benmamoun, Elabbas. 2003. Agreement parallelism between sentences and noun phrases: A historical sketch. *Lingua* 113(8). 747–764. DOI: [https://doi.org/10.1016/S0024-3841\(02\)00127-4](https://doi.org/10.1016/S0024-3841(02)00127-4)
- Bleam, Tonia. 2005. The role of semantic type in differential object marking. *Belgian Journal of Linguistics* 19. 3–27. DOI: <https://doi.org/10.1075/bjl.19.03ble>
- Borer, H. 1999. Deconstructing the construct. In Johnson, Kyle & Roberts, Ian (eds.), *Beyond Principles and Parameters*, 43–89. Dordrecht: Kluwer. DOI: https://doi.org/10.1007/978-94-011-4822-1_3
- Bossong, Georg. 1985. *Empirische Universalienforschung: Differentielle Objektmarkierung in den neuiranischen Sprachen*. Tübingen: Narr.
- Croft, William. 1988. Agreement vs Case Marking and Direct Objects. In Barlow, Michael & Ferguson, Charles A. (eds.), *Agreement in Natural Language: Approaches, Theories, Descriptions*, 159–180. Stanford: CSLI Publications.
- Danon, Gabi. 2001a. The Hebrew Object Marker as a Type-shifting Operator. In Aim, Emmanuel & Gerdes, Kim & Yoo, Hi-Yon (eds.), *Proceedings of the 6th Doctorate Meeting in Linguistics*, 41–46. Paris: Université Paris 7
- Danon, Gabi. 2001b. Syntactic Definiteness in the Grammar of Modern Hebrew. *Linguistics* 39(6). 1071–1116. DOI: <https://doi.org/10.1515/ling.2001.042>
- Danon, Gabi. 2002. The Hebrew Object Marker and Semantic Type. In Falk, Yehuda (ed.), *Proceedings of IATL 17*. DOI: <https://doi.org/10.1016/j.lingua.2007.08.001>

- Danon, Gabi. 2006. Caseless nominals and the projection of DP. *Natural Language & Linguistic Theory* 24(4). 977–1008. DOI: <https://doi.org/10.1007/s11049-006-9005-6>
- Danon, Gabi. 2008. Definiteness spreading in the Hebrew construct state. *Lingua* 118(7). 872–906. DOI: <https://doi.org/10.1016/j.lingua.2007.05.012>
- Danon, Gabi. 2010. The definiteness feature at the syntax–semantics interface. In Kibort, Anna & Corbett, Greville G. (eds.), *Features. Perspectives on a key notion in linguistics*, 143–165. Oxford: Oxford University Press. DOI: <https://doi.org/10.1093/acprof:oso/9780199577743.003.0006>
- Danon, Gabi. 2013. Agreement alternations with quantified nominals in Modern Hebrew. *Journal of Linguistics* 49(1). 55–92. DOI: <https://doi.org/10.1017/S0022226712000333>
- de Hoop, Helen. 1992. *Case configuration and noun phrase interpretation*. Groningen, The Netherlands: Rijksuniversiteit Groningen PhD dissertation.
- de Jong, Jelly Julia. 1996. *The Case of Bound Pronouns in Peripheral Romance*. Groningen, The Netherlands: Groningen Dissertations in Linguistics.
- de Swart, Peter. 2003. *The Case Mirror*. Nijmegen, The Netherlands: Radboud University Master's thesis.
- de Swart, Peter. 2007. *Cross-linguistic Variation in Object Marking*. Utrecht: LOT Publishers.
- Dobrovie-Sorin, Carmen. 2000. (In)Definiteness Spread: From Romanian Genitives to Hebrew Construct State Nominals. In Motapanyane, Virginia (ed.), *Comparative Studies in Romanian Syntax*, 177–226. Amsterdam/Philadelphia, John Benjamins.
- Dobrovie-Sorin, Carmen. 2003. From DPs to NPs: a bare phrase structure account of genitives. In Coene, Martine & D'hulst, Yves (eds.), *From NP to DP, Volume 2: The Expression of Possession in Noun Phrases*, 75–120. Amsterdam: John Benjamins. DOI: <https://doi.org/10.1075/la.56.08dob>
- Dromi, Esther & Leonard, Laurence B. & Shteiman, Michal. 1993. The grammatical morphology of Hebrew-speaking children with specific language impairment: Some competing hypotheses. *Journal of Speech, Language, and Hearing Research* 36(4). 760–771. DOI: <https://doi.org/10.1044/jshr.3604.760>
- Enç, Mürvet. 1991. The Semantics of Specificity. *Linguistics Inquiry* 22(1). 1–25.
- Falk, Yehuda N. 1991. Case: Abstract and Morphological. *Linguistics* 29(2). 197–230. DOI: <https://doi.org/10.1515/ling.1991.29.2.197>
- Falk, Yehuda N. 2007. Constituent Structure and GFs in the Hebrew Nominal Phrase. In Zaenen, Annie & Simpson, Jane & King, Tracy Holloway & Grimshaw, Jane & Maling, Joan & Manning, Chris (eds.), *Architectures, Rules, and Preferences: Variations on Themes by Joan W. Bresnan*, 103–126. Stanford: CSLI Publications.
- Farkas, Donka. 2002. Specificity Distinctions. *Journal of Semantics* 19(3). 213–243. DOI: <https://doi.org/10.1093/jos/19.3.213>
- Field, A. 2009. *Discovering Statistics Using SPSS* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Frankel, Daniel G. & Amir, Marianne & Frenkel, Etha & Arbel, Tali. 1980. A developmental study of the role of word order in comprehending Hebrew. *Journal of Experimental Child Psychology* 29(1). 23–35. DOI: [https://doi.org/10.1016/0022-0965\(80\)90088-0](https://doi.org/10.1016/0022-0965(80)90088-0)

- Givón, Talmy. 1978. Definiteness and referentiality. In Greenberg, Joseph Harold & Ferguson, Charles Albert & Moravcsik, Edith A. (eds.), *Universals of human language*, vol. 4. 291-330. Stanford: Stanford University Press.
- Grimm, Scott M. 2005. *The Lattice of Case and Agentivity*. Amsterdam, The Netherlands: Universiteit van Amsterdam Master's thesis.
- Guntsetseg, Dolgor & von Heusinger Klaus & Klein Udo & Niyazmetowa, Dildora. 2008. Differential object marking in Mongolian and Uzbek. Handout of talk presented at *SFB 732*, Stuttgart.
- Irimia, Monica Alexandrina. 2020. Variation in differential object marking: On some differences between Spanish and Romanian. *Open Linguistics* 6(1). 424–462. DOI: <https://doi.org/10.1515/opli-2020-0110>
- Janssen, Bibi & Meir, Natalia & Baker, Anne & Armon-Lotem, Sharon. 2015. On-line comprehension of Russian case cues in monolingual Russian and bilingual Russian-Dutch and Russian-Hebrew children. In Grillo, Elizabeth & Jepsen, Kyle (eds.), *Proceedings of the 39th annual Boston University conference on language development*, 266–278. Somerville, MA: Cascadilla Press.
- Kagan, Olga. 2011. On Speaker Identifiability. *Journal of Slavic Linguistics* 19(1). 47–84. DOI: <https://doi.org/10.1353/jsl.2011.0008>
- Kagan Olga. 2013. Semantics of Genitive Objects in Russian: A Study of Genitive of Negation and Intensional Genitive Case. Dordrecht: Springer. DOI: <https://doi.org/10.1007/978-94-007-5225-2>
- Klein, Udo & de Swart, Peter. 2011. Case and referential properties. *Lingua* 121(1). 3–19. DOI: <https://doi.org/10.1016/j.lingua.2010.07.005>
- Lidz, Jeffrey. 2006. The grammar of accusative case in Kannada. *Language* 82(1). 10–32. DOI: <https://doi.org/10.1353/lan.2006.0054>
- López, Luis. 2012. *Indefinite Objects. Scrambling, Choice Functions, and Differential Marking*. Cambridge, MA: MIT Press. DOI: <https://doi.org/10.7551/mitpress/9165.001.0001>
- Manzini, M. Rita, & Franco, Ludovico. 2019. 'Agreement of Structural Obliques' Parameter: DOM and Pseudopartitives. *Linguisticae Investigationes* 42(1). 82–101. DOI: <https://doi.org/10.1075/li.00030.man>
- Özge, Umut. 2011. Turkish indefinites and accusative marking. In Simpson, Andrew (ed.), *Proceedings of the 7th Workshop on Altaic Formal Linguistics (WAFL 8)*, 253–267. MIT Working Papers in Linguistics. Cambridge, MA. Department of Linguistics and Philosophy.
- Ritter, Elizabeth. 1991. Two functional categories in noun phrases: Evidence from Modern Hebrew. In Rothstein, Susan D. (ed.), *Perspectives on phrase structure: Heads and licensing 25 Syntax and Semantics*, 37–62. New York: Academic Press. DOI: https://doi.org/10.1163/9789004373198_004
- Ruigendijk, Esther & Friedmann, Naama. 2008. On the relation between structural case, determiners, and verbs in agrammatism: A study of Hebrew and Dutch. *Aphasiology* 22(9). 948–969. DOI: <https://doi.org/10.1080/02687030701831482>
- Shlonsky, Ur. 1997. *Clause Structure and Word Order in Hebrew and Arabic*. Oxford: Oxford University Press.

- Siloni, Tal. 1997. *Noun phrases and nominalizations: The syntax of DPs* 40. Dordrecht: Springer Science & Business Media. DOI: <https://doi.org/10.1007/978-94-015-8863-8>
- Sutherland-Smith, Wendy. 1996. Spoken narrative and preferred clause structure: Evidence from Modern Hebrew discourse. *Studies in Language* 20(1). 163–189. DOI: <https://doi.org/10.1075/sl.20.1.07sut>
- Taube, Moshe. 2015. The usual suspects: Slavic, Yiddish, and the accusative existentials and possessives in Modern Hebrew. *Journal of Jewish Languages* 3(1–2). 27–37. DOI: <https://doi.org/10.1163/22134638-12340035>
- von Heusinger, Klaus. 2002. Specificity and Definiteness in Sentence and Discourse Structure. *Journal of Semantics* 19(3). 245–274. DOI: <https://doi.org/10.1093/jos/19.3.245>
- von Heusinger, Klaus & Kornfilt, Jaklin. 2005. The case of the direct object in Turkish: Semantics, syntax and morphology. *Turkic Languages* 9. 3–44. DOI: http://www.digizeitschriften.de/dms/img/?PID=PPN666048797_0009%7CLOG_0014
- Wechsler, Stephen & Zlatić, Larisa. 2000. A theory of agreement and its application to Serbo-Croatian. *Language* 76. 799–832. DOI: <https://doi.org/10.2307/417200>
- Wechsler, Stephen & Zlatić, Larisa. 2003. *The many faces of agreement*. Stanford: CSLI Publications.
- Wintner, S. 2000. Definiteness in the Hebrew noun phrase. *Journal of Linguistics* 36(2): 319–363. DOI: <https://doi.org/10.1017/S0022226700008173>

