



10.2478/topling-2018-0009

## The meaning and development of the Hebrew scalar modifier *kexol*

Hagit Shefer\*  
Beit-Berl Academic College, Israel

---

### Abstract

The purpose of this paper is twofold; first, it aims to explore the variety of interpretations of the partially schematic Hebrew construction *kexol* as in *kexol she'ratsiti* ('as much as I wanted') within the framework of construction grammar; second, it aims to account for this variety through a demonstration of the interrelation between the grammaticalization of the construction and the process of (inter)subjectification or speech-act orientation. The analysis will show that this interrelation has resulted in considerable internal variation in meaning and function in the present day. Corpus findings reveal that initially *kexol* functioned as a compound consisting of a preposition and a universal quantifier to denote a relation of similarity and comparison. As a result of speaker orientation, the construction has come to exhibit a higher degree of grammaticality in its function as a scalar modifier. Additional schematic and procedural meanings which developed later seem to be the result of hearer-orientation and discourse-orientation tendencies all subsumed under the cover term speech-act orientation

### Key words

Construction grammar, (inter)subjectivity, compositionality, scalar modifier, speech-act orientation, grammaticalization.

### 1. Introduction

Grammaticalization, both as a theory and as a process, has yielded an abundance of studies which aim to account for the development of various types of constructions and the ways in which they have acquired increased levels of grammaticality. In construction grammar, constructions are defined as form-meaning pairings "which vary in make-up (from schematic through partially schematic, to wholly specified expressions), size, shape, and complexity" (Traugott and Trousdale, 2013, p.5). A significant amount of attention has been given to the involvement of (inter)subjectification in the development of substantive constructions which are wholly specified and thus form a fixed string with a determined meaning, aiming to describe the ways they have evolved to be symbolically associated with a conventional meaning. Substantive constructions seem to lend themselves more readily to an investigation of the point at which the speaker's subjective perspective is identified to effect semantic change.

The involvement of (inter)subjectification in the process of grammaticalization of such constructions has been demonstrated in various expressions such as modals (Narrog, 2012), *be going to* (Budts and Petré, 2016), *while*, *well* and *actually* (Traugott, 2003), and *in fact* (Schwenter and Traugott, 2000). Other substantive

---

\* Address for correspondence: Hagit Shefer, Department of English Language and Literature, Beit-Berl Academic College, Beit-Berl 4490500, Israel. E-mail: hagit.shefer@beitberl.ac.il

constructions documented to have been grammaticalized in association with (inter)subjectification are *a piece of*, *a bit of* and *a shred of* (Traugott, 2010) and the Spanish *de hecho* (Fanego, 2010; Boye and Harder, 2014).

This study suggests a novel perspective in that it aims to focus on the association of (inter)subjectification and the grammaticalization of a partially schematic construction, the Hebrew construction *kexol* (henceforth to be referred to as the construction *kexol*). The construction is partially schematic in that *kexol* is a fully lexicalized item which allows for several open slots and syntactic environments. The analysis will show that the construction is interesting, as it exhibits dynamic structure, internal variation and contextually driven interpretation uncharacteristic of substantive constructions. The following examples illustrate some of the internal variety of the construction:

- *Kexol hanir'e medubar behomeless hamukar ledayarei hamakom.*  
as all appear is said about homeless familiar to residents of the area  
'Apparently, it is said to be a homeless [person] who is familiar to the residents of the area.'
- *Ha'avoda beVitso gdola kexol shetihye hi behitnadvt bilvad.*  
the work in Vitso significant as all that will be is voluntary only  
'The work in Vitso, as significant as it may be, is strictly voluntary.'
- *Kexol sheyesh yoter roxlim hashuk yoter atraktivy.*  
as all there are more peddlers the market more attractive  
'The more peddlers there are, the more attractive the market is.'

This preliminary illustration shows that instances of *kexol* differ in their interpretation and that *kexol* contributes differently to each of the three sentences in which it figures above. Whereas in the first example the speaker expresses some reservation regarding the extent of his knowledge, the second example expresses a concession and the third a correlation between two situations. The purpose of this discussion is therefore to provide an account of the complex semantics of the *kexol* construction and to demonstrate the way a more inclusive concept, namely speech-act orientation, has functioned as a force motivating its grammaticalization.

## 2. Theoretical issues

This section will briefly introduce the basic assumptions underlying construction grammar as well as subjectification and grammaticalization. It appears that the interaction of the various syntactic, semantic and pragmatic features that are displayed by instances of *kexol* are best accommodated by construction grammar, as the theory has been found to be an appropriate framework for a description of form-meaning pairings in varying degrees of size, shape, complexity and schematicity (Goldberg, 2011; 2013; Hoffmann and Trousdale, 2013; Hilpert, 2014 and Bat-Zeev Shyldkrot, 2017).

The literature distinguishes between three levels of schematicity of constructions, namely schematic, intermediate and low-level schematicity (Traugott and Trousdale, 2013). Deppermann (2011, p.89) argues that "there is a constructional continuum ranging from (idiomatic) constructions which are fully specified to (most general) constructions which are fully schematic, with all sorts of partial specifications between these poles". Schematic constructions are those that have open slots which need to be filled with lexical items. For example, the *Subject-Auxiliary Inversion* (SAI) construction (Goldberg, 2006), the *PN* construction (Goldberg, 2013) and the *ditransitive* and the *resultative* constructions (Hilpert, 2014). Intermediate or partial schematicity is found in constructions where only some of the variables are open slots, such as in *what's X doing Y* (Kay and Fillmore, 1999), *this is to* (Goldberg and Van der Auwera, 2012), *if and when* (Sullivan, 2011) and the *just me* construction (Bai, 2014). Substantive constructions which express the lowest level of schematicity have no open slots, and all their variables are fully specified, such as the idiomatic expression *it takes one to know one* (Croft and Cruse, 2004) or *going great guns* (Boas, 2013).<sup>1</sup>

<sup>1</sup> In addition to varying degrees of schematicity, each of these constructions expresses a degree of compositionality and is associated with its own unique semantic, syntactic and pragmatic properties. Additional constructions in varying degrees of schematicity are the expression *let alone* (Fillmore et al., 1988), which calls for an interpretation of a scalar model, and the *nice and Adj* construction (Panther and Thornburg, 2009), which imposes a function of intensification on the adjective *nice*. Many more examples are listed in Jackendoff (2013). On Hebrew constructions see Nir and Berman (2010).

An important assumption in construction grammar relates to the organization of constructions in the speaker's knowledge of language. Accordingly, constructions are organized in a network based on inheritance hierarchies. This view of knowledge captures similarities between constructions as well as irregularities which they exhibit. In this network, constructions inherit properties from more schematic ones, and as they go down the hierarchy, more specific and irregular constructions appear. The analysis in the following sections suggests that the construction inherits the meaning of the combination of the preposition and the quantifier *ke+kol* (as all) but displays constructional and more specific unpredictable meanings.

A central concept of the analysis advanced here is the principle of coercion. Accordingly, constructions are often associated with unpredictable interpretations which cannot be derived from more general rules of language (Bybee, 2013; Michaelis, 2004; Goldberg, 2011 and Hilpert, 2014). A construction coerces an element of interpretation into the meanings of the lexical items which figure within it, thereby resulting in non-compositionality. The analysis advanced here, which suggests that (inter)subjectification is a driving force in the grammaticalization of the construction, will demonstrate coercion effects resulting in non-compositional meanings and associated features of interpretation which cannot be derived from the components of the construction.

In order to account for the emergence of the construction, the analysis presented in this paper examines two closely related concepts, i.e. grammaticalization and (inter)subjectification. It will be argued here that (inter)subjectification functions as a motivating force in the grammaticalization of the construction. For a definition of grammaticalization I rely on Diewald (2010, p.18), who suggests that grammaticalization "is a process whereby linguistic items gain grammatical function while reducing their lexical-descriptive function". The last section in the discussion aims to show that the Hebrew construction emerged as a result of the development of a loose discourse sequence of a preposition and a quantifier denoting a compositional meaning of comparison and similarity, into a tightly organized construction denoting a variety of constructional meanings in specific semantic, pragmatic and syntactic contexts.

The concept of (inter)subjectification comes into play in exploring the causes for constructions and lexical items to undergo grammaticalization. According to Traugott (2010, p.29) "the expressions of subjectivity and (inter)subjectivity are expressions the prime semantic or pragmatic meaning of which is to index speaker attitude or viewpoint (subjectivity) and speaker's attention to addressee's self-image (intersubjectivity)". For example, according to Traugott, subjectification is semantically encoded in expressions such as *silly*, which changed its meaning from *innocent* to *stupid*, or *pretty*, which changed from *cleverly* to *rather*. Intersubjectified encoded meanings are for example Japanese honorifics and the French interpersonal *tu/vous* distinction. Subjectification and intersubjectification are therefore processes of change whereby linguistic expressions come to index the speaker's perspective and attention to the addressee, respectively.

Differently from Traugott, Narrog (2017) suggests that often subjectivity and intersubjectivity are a property of context and are not attributed only to specific linguistic units. He thus proposes a broader definition of (inter)subjectification by presenting a synthesis of several approaches to subjectification (e.g. Langacker, 1998; Nuyts, 2001 and Traugott, 2010). He suggests three terms which may all be subsumed under a more general term, namely speech-act orientation, which "encompasses increased orientation toward all the participants in the speech act" (p.38). According to his classification, speaker orientation refers to the orientation of the speaker towards himself, thereby expressing the speaker's stance or perspective. Aiming to provide a more general focus on the hearer, as compared to a strict reference to his self-image and face needs as suggested by Traugott, Narrog proposes the term hearer orientation, which covers general attention towards the addressee. A third component of the speech-act orientation triad is termed discourse orientation, and is suggested by Narrog as a replacement for the concept of textual meaning which was included by Traugott's earlier work in the larger concept of subjectification. The purpose of discourse orientation is to describe cases where the speaker expresses his perception regarding the way the parts of the discourse are interrelated. Narrog's definition of hearer orientation renders his classification particularly appropriate to the discussion as it allows for orientation regarding aspects beyond just face and image needs.

Narrog and Traugott agree that instances of grammaticalization may involve different degrees of subjectification or involve no subjectification at all. Both also agree that "speaker-orientation (subjectification) is likely to be identifiable with early stages of grammaticalization from a lexical domain with concrete meanings to a grammatical domain with abstract meanings" (Narrog, 2017, p.40). Hearer and discourse orientation "are more likely to be identified with later stages of grammaticalization" (p.41). In other words, different types of orientation motivate different stages of the process of grammaticalization. These ideas will prove relevant to the

discussion, as they will demonstrate that meanings which arise at different stages in the grammaticalization of the construction correlate with different types of orientation as suggested here by Traugott and Narrog.

### 3. The relation of *kexol* ('as all') to *kol* ('all')

I would like to argue in this section that *kexol* originated in the universal quantifier *kol* ('all'), whose constructional behaviour is similar to that of English 'all'. An analysis of 'all' is presented by Kay (2013). Kay posits an All-cleft construction which carries a below-expectation interpretation as in (1a–b):

- (1) a. All the president wanted was to succeed himself.  
 b. All I can eat is half a pizza.

The construction in these examples expresses “a lower point in a presupposed scalar model” (p.36) which is derived by conversational implicature and can be paraphrased as ‘the most’. This unexpected aspect of meaning stands in contrast with the use of the universal quantifier ‘all’ exemplified in (2a–b):

- (2) a. All that I command is yours now.  
 b. All that we use in our modern world is a comment upon the delicate balance of human hand, eye and brain.

Hebrew has an equivalent cleft construction consisting of a quantifier *kol* ‘all’ and *ma she* (‘what that’). This construction allows for an interpretation identical to the English one as exemplified in (3a), compared with the universal quantifier reading in (3b):

- (3) a. *Kol ma she ratsiti lomar ze she hifsadnu bataxarut.*  
 all what that I wanted to say is that we lost the race  
 ‘All that I wanted to say is we lost the race.’  
 b. *Kol ma she atem roim po yihiye shelaxem.*  
 all what that you see here will be yours  
 ‘Everything that you see here will be yours.’

The interpretation in (3a) is based on a presupposed scale similar to that suggested by Kay regarding *all*. It seems that a lower point on a presupposed scale is implied here too. Sentence (3a) expresses an apologetic tone such that conveys a message that the speaker wants to say something which is below the hearer’s expectation. In other words, if the hearer expects one thing, the speaker is in fact saying that he wants something which is less than that. The presupposed scale can of course vary from one domain to another. Thus, the interpretation of (3a) may be paraphrased as an apology or a hedge stating that “I didn’t really want to say anything more than that” or “I just wanted to say that ...”. Of course, the realization of the constructional meaning has some constraints. The interpretation appears often in the context of a main verb such as *want*, with an infinitival complement such as *say*, *ask*, *propose* and *suggest*. Another important constraint is that this constructional meaning is used with a first-person pronoun in an apologetic speech act in which the speaker feels compelled to diminish the force expressed in his argument or action in order to defend his point of view and avoid counter arguments. In contrast, the meaning in (3b) is not associated with these constraints and is therefore completely compositional and is thus paraphrased as ‘everything that you see here will be yours’.<sup>2</sup>

This constructional reading of *kol* has important implications for the following analysis. As discussed in Section 1, the analysis rests on the assumptions of construction grammar by which language is perceived as a network of constructions ranging from the more schematic to the more specific while maintaining inheritance relations of form and meaning (Hilpert, 2014, p.58). It will be demonstrated that the scalar meanings which became associated with *kexol* inherited both the compositional meaning of

<sup>2</sup> Pragmatic meanings of ‘all’ have been discussed by others as well. Malkin (1976) analyses the various meaning of Hebrew ‘all’ as conveying concepts of concreteness, abstractness and infinity; Rickford et al. (2007) discuss the use of intensive and quotative ‘all’; Pajusalu (2008) discusses the pragmatic properties of the Estonian quantifier *kõik* ‘all’, arguing that it carries “an additional meaning of pragmatic plenitude,” and Traugott and Trousdale (2013) refer to the construction as evaluative.

the quantifier *kol* as well as its constructional meaning. In fact, the compositional meaning of the quantifier *all* provides the basis for the constructional meanings of upward scalarity towards totality and wholeness which developed later.

#### 4. A synchronic analysis of *kexol*

##### 4.1 Non-constructional meaning of comparison

The non-constructional meaning of *kexol* derives from the compositional meanings of the preposition *ke* ‘as’ and the quantifier *xol* ‘all’ (an allophone of *kol* ‘all’).<sup>3</sup> In Hebrew the combination of the preposition and the quantifier serves to compare one entity to all other entities of a similar type in terms of a particular quality (Choueka, 1997). In addition, it serves to draw a comparison based on some standard which derives from the comparison to an entire set. Consider examples (4a–c):<sup>4</sup>

- (4) a. *Kexol bnei hatishxoret hayinu meshuxnaim she anaxnu tsodkim.*  
as all teenagers we were convinced that we are right  
‘Like all teenagers we were convinced that we were right.’
- b. *Hatokef tzarich lehikale kexol adam shebitsa pesha.*  
the assailant should be arrested as all person who committed a crime  
‘The assailant should be arrested like any other person who has committed a crime.’
- c. *Zo avoda kexol avoda.*  
this work as all work  
‘This is work like any other work.’

Examples (4a–c) all share a meaning component of a comparison between one entity and all other similar entities. In (4a) the speakers are compared to all other teenagers; in (4b) the assailant is judged according to any other person who committed a crime. In (4c), a particular type of work is compared to all other types of work. In sum, an entity is being described here in relation to a standard which is in fact all other similar entities. It should be noted that the particle *ke* ‘as’ is not obligatory here and can be replaced with other prepositions indicating resemblance and similarity, such as *kmo kol* (like all) and *kefi she kol* (in the same way as all). The use of the quantifier emphasizes the meaning that the comparison is with **all** other similar items and thus serves as a basis for future constructional meaning of upward scaling. It is important to mention the interchangeability of *ke* in order to show that as part of the grammaticalization process of *kexol*, *ke + kol* developed to exhibit a higher degree of internal dependence thereby excluding these formerly possible replacements of *ke*.

It should be noted that the morphosyntactic environment of the non-constructional meaning seems to be associated with nouns. In (4a) the slot following *kexol* is a plural noun (teenagers), in (4b) a singular noun (person) but one that refers in fact to all persons (any other person) and in (4c) an abstract noun (work).

##### 4.2 Constructional meanings of *kexol*

This section elaborates on the constructional meanings of *kexol* found in the corpus. It is suggested that the construction functions as a scalar modifier in a similar way to other Hebrew scalar modifiers in terms of the scalar reading. Modifiers such as *laxalutin* (completely), *legamrei* (completely, totally), *meod* (very), and *behexlet* (absolutely) reinforce the element they modify, as in *Ani legamrei batu’ax* (I’m completely sure), thereby expressing the speaker’s subjective assessment of that element, in this case being sure of something. In other words, they place an element which they modify high on a scale of intensity.

As will be demonstrated, *kexol* has come to function in a similar way to other Hebrew scalar modifiers, but it exhibits a wider array of variants and a wider display of interpretations which are

<sup>3</sup> A result of a phonological rule in Hebrew requiring a reduced phoneme after certain initial sounds.

<sup>4</sup> Unless otherwise stated, all Hebrew modern examples are taken from The National Middle East Language Resource Center (NMELRC) *HebrewCorpus*. <http://hebrewcorpus.nmelrc.org>. The corpus consists over 150 million words and includes the Tanach, Mishnah, Israeli newspapers, early and modern fiction, movies subtitles, interviews from the Corpus of Spoken Israeli Hebrew, academic journals, Knesset sessions, Wikipedia and others.

derived non-compositionally as a result of coercion. Furthermore, sentences realizing the construction are subject to various semantic and morphosyntactic constraints. The following table demonstrates the four syntactic variants of the construction:

Table 1. The syntactic variants of the *kexol* construction.

Fixed slot+variable	Syntactic Environment	Example	Meaning
<i>kexol</i> + $\emptyset$ (‘as all’)	_____ possessive noun	<i>kexol yexolti</i> (‘as much as I can’)	scalar
<i>kexol</i> + <i>she</i> (‘as all that’)	_____ verb	<i>kexol sheyaxolti</i> (‘as much as I could’)	scalar
	adj. ____ verb	<i>xazakim kexol sheyihiyu</i> (‘as strong as they may be’)	concession
	_____ clause	<i>kexol shekarati yoter...</i> (‘the more I read...’)	correlation
	_____ verb	<i>kexol sheyidaresh</i> (‘as much as will be needed’)	condition
<i>kexol</i> + <i>asher</i> (‘as all that’)	_____ clause	<i>kexol asher libam xafets</i> (‘as much as they want’)	scalar
	_____ verb	<i>kexol asher yidaresh</i> (‘as much as will be needed’)	condition
<i>kexol</i> + <i>ha</i> (‘as all that’)	_____ adv.	<i>kexol ha’efshar</i> (‘as much as possible’)	scalar
	_____ participle	<i>kexol hanir’e</i> (‘apparently’)	scalar/hedge

The table shows the four variants of the construction. The first column displays the variants, each of which consists of a fixed slot (*kexol*) + a variable ( $\emptyset$ , *she*, *asher* and *ha*).<sup>5</sup> The second column describes the syntactic environment associated with each variant, that is what part of speech can come before or after the fixed slot+variable. The third column provides an example and the fourth the meaning of the example, which is basically the meaning associated with that variant.

Several important points have to be made regarding the table above. First, the analysis treats *kexol* as a morphosyntactic construction rather than a purely morphological or syntactic construction, since the distinction between morphology and syntax is often equivocal. Support for this approach is found in Anderson (1982), who argues in general that subparts of a grammar interact and overlap, and morphology in particular should not be viewed as an isolated component of grammar as morphological properties often depend on syntactic rules and are determined by syntactic relations. This view is also

<sup>5</sup> Peretz (1967) discusses the distribution and etymology of the subordinators *she*, *asher* and *ha*. *Asher* and *she* open a verbal or verbless relative clause. *Asher* is mostly associated with the Hebrew of the Bible and *she* with the Hebrew of the Sages. Whereas scholars agree that both originated in Phoenician, opinions vary regarding their path of development and order of emergence. The definite article *ha*, according to Peretz, whose original function was a deictic or demonstrative, is found in the later books of the Bible as a subordinator before a past tense verb and today is used before a participle in a relative clause. According to Gzella (2006), the original function of the definite article *ha* was subordination.

in line with construction grammar, according to which there is no strict separation between the various facets of language, resulting in unpredictable combinatory potential and internal composition which are coerced by constructions (Boas, 2013).

Second, very often the syntactic variants are interchangeable probably as a result of stylistic variation which has no effect on the meaning. That is, the variables *asher* and *ha* can be replaced by the variable *she*, which is less formal, as in *kexol hanidrash/ kexol asher nidrash/kexol shenidrash*. Third, the table describes the syntactic environment typical of each variant. The semantic constraints on the type of verbs which may appear in association with the construction will be described and analysed for each meaning in the following discussion.

#### 4.2.1 Scalar modification

The first constructional meaning is scalar modification, as examples (5a–c) illustrate:

- (5) a. *Hem soxatim otanu kexol ha'ole al ruxam.*  
 they blackmail us as all rise on spirit  
 'They blackmail us as much as they want.'
- b. *Exol kexol yexoltexa.*  
 eat as all your ability  
 'all you can eat.' (an advertisement for an all-you-can-eat restaurant)
- c. *Tesayea lanu lehimalet mikan maher kexol ha'efshar.*  
 help us to flee from here fast as all as possible  
 'Help us flee from here as fast as possible.'

In *kexol ha* (literally 'as all the') in (5a) and (5c), the morpheme *ha*, which is a definite article in Hebrew as in *hakise* ('the chair'), functions as a subordinator. For example, in (5a), *kexol ha'ole al ruxam* can be replaced by the Hebrew subordinator *she* ('that') as in *kexol she'ole al ruxam* with no change in meaning, only in register. In (5a) *kexol ha'ole al ruxam* 'as much as they want' modifies the extent of the blackmail by invoking a scale and allowing for varying degrees including the highest possible as invoked by the inherited meaning of the quantifier *kol* which alludes to wholeness and totality (as explained in Section 3). In (5b) the variant *kexol + Ø* invites customers to eat according to their capacity, and in fact as much as they wish. In (5c) the variant *kexol ha* in *kexol ha'efshar* 'as much as possible' modifies rising degrees of the speed of fleeing. In fact, in these examples, the different variants of the construction imply that the extent and intensity of a situation depend on the degree of will, ability or possibility. This dependence is retrieved by the hearer based on pragmatic factors: the speaker or hearer relies on personal experience and world knowledge in associating accomplishment of the actions *blackmail*, *eat* and *flee* as subject to a typical modality. Furthermore, these verbs, as well as the modalities of will, ability and possibility, are typically gradable or scalar. The speaker or hearer associates the degree of accomplishment as subject to the degree of the characteristic scalar modality, which in turn results in scalar interpretation.

An important observation is that the compositional meaning of comparison and similarity to all other similar items is bleached in the use of the construction as a modifier. Three pieces of evidence seem to support this idea. First, a replacement of the combination of *ke+kol* with other prepositions of resemblance and similarity is no longer permitted as it is in the compositional meaning discussed in Section 4.1. Such a replacement would render sentence (d) ungrammatical:

- (5) d. \**Tesayea lanu lehimalet mikan maher kmo kol ha'efshar.*

A second piece of evidence supporting the idea of bleaching is the fact that the compositional *kexol* can only connect non-scalar entities, whereas non-compositional *kexol* can only describe a scalar entity. For example, the verbs *blackmail* and *eat* and the adverb *fast* in (5) are scalar and thus call for a constructional interpretation. Third, in the compositional meaning, the two entities compared are of equal status due to properties they share, and so one entity or situation is measured against another. This equal status no longer exists in the non-compositional meaning. In (5b) eating does not share properties with one's eating capacity. Rather, the extent of eating is measured or assessed in terms of eating capacity. This posits a dependency relation between eating and eating capacity.

However, a covert comparison is still detectable in these examples. It seems that when eating is measured against some eating potential, then eating is in fact measured against a standard. In other words, the eating potential serves as a basis for the comparison between how much one eats and how much one is able to eat, and it is in this sense that the compositional meaning of the quantifier is maintained. However, the meaning of comparison in terms of one's maximum ability is reduced, and instead it leads to a pragmatic implicature of intensifying the act of eating.

#### 4.2.2 Constructional meaning of a hedge

In addition to the scalar modification associated with the variant *kexol ha* (literally 'as all the'), this variant is also used to convey a second meaning, that of the speaker's subjective mitigating comment or hedge. In these cases, the compositional meaning is bleached as there is no longer a similarity between two situations. Rather, the scalar reading as discussed above is maintained, and an additional non-compositional reading appears suggesting a meaning of 'at most' similar to the All-cleft construction discussed in Section 3. In other words, the construction functions to modify some situation and to assign it rising degrees of validity. At the same time, it conveys the meaning that the validity of the situation depends upon information which has arrived through specific channels and may perhaps be insufficient. Consider examples (6a–b):

- (6) a. *Kexol hanir'e medubar behatsata be'emtsaut xomer dalik.*  
 as all appear is said in ignition through material inflammable  
 'Apparently, it is arson using or through the use of flammable material.'
- b. *Kexol hayadu'a lanu, hahaxlata harishmit terem pursema.*  
 as all the known to us the decision formal not yet been published  
 'As far as we know, the formal decision has not been published yet.'

Both sentences share a reading of a speaker's subjective comment that there may be a limit to how much the speaker has heard, has seen or knows and that there may be things which the speaker is unaware of. As a result, things are to be taken with a grain of salt. The meaning associated with these cases is an attempt to avoid complete commitment to the truth of some situation. The meaning here may be perceived as a warning to the addressee that the validity and truth of the speaker's statement should be treated with caution due to the limited information at hand. This use of the construction is similar to content disjuncts described by Quirk et al. (1985, p.620) where the speaker expresses "the extent to which, and the conditions under which the speaker believes that what he is saying is true".

In order to explain the scalar meaning of this special use of hedge, it may be suggested that the situation be pictured as a scale expressing a total point of the extent to which things are seen, heard or known. However, the speaker in (6b) for example is fully aware of the fact that no such total point is accessible and thus acknowledges the existence of a barrier at some high point on that scale, preventing the information from reaching its highest level and therefore ultimate certainty. In other words, assuming the speaker in this example is a television broadcaster reporting an event of some type, then he must know that other sources of information may be able to provide information which is not available to him. Moreover, the audience is well aware of this fact too. The result is that this mutual understanding has been absorbed into the meaning of the expression, thereby conveying the message that even the total of the broadcaster's information may still not be the absolute total and that his highest degree of informativity on a scale may fail to reach an even higher degree had all sources been available. This naturally renders the information insufficient and motivates a hedge implicature which has been lexicalized in Hebrew. Clearly, this meaning aspect is entirely subjective and cannot in any way derive from the syntax or semantics of the sentence.

At the core of this lexicalized meaning are found typical verbs of perception such as sight but also verbs designating knowledge. Such a semantic environment invites an implicature of limitation as these modalities operate passively in the human body and are thus rarely under some control. This passiveness of action stands in direct correlation with the limited sources available as discussed above. The limited

control one has over perception is in fact the reason why information gathered through such modalities may be limited.<sup>6</sup>

### 4.2.3 Constructional meaning of concession

A third realization of the construction which makes use of the variant *kexol she* conveys a meaning of concession as illustrated in (7):

- (7) a. *Yesh kol kax harbe mekomot beamerika she'i efshar betiyul*  
 there are so many places in America that not possible in trip  
*exad, arox kexol sheyihiye levaker bekulam.*  
 one long as all that it will be to visit in all  
 'There are so many places in America that it is impossible in one trip, as long as it may be, to visit them all.'
- b. *Keshesaxkan ole labama, eixuti kexol sheyihiye, hu*  
 when an actor goes on stage, outstanding as all that he will be he is  
*mitragesh mehayedia shebakahal yoshvim axshav 1000 ish.*  
 excited by the fact that in the audience sit now 1000 person  
 'When an actor goes on stage, as outstanding as he may be, he is excited by the fact that there are 1000 people sitting in the audience.'
- c. *Hahesberim hapsixologim, meshaxneim kexol sheyihyu, einam mesapkim.*  
 the explanations the psychological convincing as all that will be are not enough  
 'The psychological explanations, as convincing as they may be, are not enough.'

In sentences (7a–c) the compositional meaning of comparison and similarity is bleached, as no two situations are compared here. Instead, the construction extends its function. The variant *kexol she* (literally 'as all that', with 'that' functioning as a subordinator) functions here as a scalar modifier to allow rising degrees of the following properties: length of a trip, the quality of an actor, and how convincing an explanation is. This scalar meaning is conveyed through the clause "as long as it may be" in (7a), which renders the trip "very long" or even "extremely long". This paraphrase places the length of the trip at various levels on a scale aiming toward the highest level possible but still not the highest, as there is no conceivable objective endpoint when a trip should be regarded as long.

Yet, the construction serves to express an additional meaning aspect which extends to the level of the clause. In these examples, the clause containing the construction functions as a concessive clause, reflecting the speaker's awareness of a hearer's possible stance on the issue. In (7a), the speaker acknowledges the idea that no matter how long the trip is, one cannot visit all places. This is an expression of concession in that the sentence expresses the idea that despite an expectation for a causal relation, such a relation does not exist (Livnat, 2010) or that a stronger counter-argument is put forward (Zusman, 2016).

In (7a–c), the semantic environment allowed by this variant is restricted to a modification of scalar adjectives that can be placed on a scale of varying degrees. The examples in (7) all describe a situation with reference to rising degrees of some quality. This requires the quality to be scalar and thus exclude qualities which are non-scalar. A search in the corpus for this type of variant reveals a large variety of scalar verbs, for example: good, sweet, hard, social, pleasant, sad, liberal, patriotic, interesting, tall, educated, stormy and many others. Nevertheless, the construction may coerce this scalarity upon non-scalar qualities too. For example, the next sentence was found in the corpus: *Kosem kexol sheyihiye, davar exad Alan Dukas lo yaxol la'asot...* (As magician as he may be, there is one thing Alan Dukas cannot do...). Being a magician is usually not regarded as a quality but rather as a profession or a hobby. This entails that being a magician is not associated with scalarity, as one cannot be more or less a magician but rather a better or a worse magician. The sentence from the corpus is probably accompanied by cynicism and may be uttered under specific pragmatic circumstances, as it imposes a scalar reading on the property of being a magician even though it is clearly not. Having said that, it needs to be

<sup>6</sup> Further support for the lexicalization of this use may be found in the presence of first-person plural or singular, which further strengthens the speaker's wish to avoid full commitment to the truth and validity of the information stated. This idea may be substantiated by a quantitative analysis.

remembered that researchers sometimes disagree about what is considered a scalar (or unbounded) adjective.<sup>7</sup> In addition to the semantic environment of a scalar verb, the syntactic environment is such that the open slot containing the verb following *kexol she* is an existential verb ‘be’,<sup>8</sup> rendering this variant a unique exemplar of the construction.

#### 4.2.4 Constructional meaning of correlation

A fourth constructional meaning resembles the Correlative Conditional (or Comparative Correlative). This construction was discussed first by Fillmore (1986) and later by Fillmore et al. (1988), McCawley (1989), Beck (1997), Culicover and Jackendoff (1999) and Borsley (2004) and Kay and Michaelis (2012), who look into the properties and the variation in semantic interpretation of instances such as *The more I drink, the better you look*, or *The less he knows, the better*. In the case of the construction *kexol*, the variant *kexol she* in the subordinate clause depicts a scalar increase or decrease of some factor along a scale which operates in correlation with another scale. A correlation is observed when a change in one situation is accompanied by a positive or a negative change in a second situation. Consider the examples in (8a–c):

- (8) a. *Kexol shexolfim hayamim ole hametax betaxanat hamoniyot.*  
as all that pass the days rise the tension in station taxis  
‘As the days pass, the tension in the taxi station rises.’
- b. *Kexol sheraxashti bitaxon, he’azti yoter.*  
as all that I gained confidence I dared more  
‘As I gained confidence, I dared to do more.’
- c. *Kexol shehashanim ovrot ani nihiya tsair yoter.*  
as all that the years pass I become young more  
‘As the years pass, I become younger.’

Note that the compositional meaning of comparison and scalarity is bleached here, as there are no two situations that are being compared to each other. As it did in its meaning of concession, the construction in (8) exemplifies a function which extends beyond the boundaries of its own clause. The examples in (8) demonstrate a correlation between two situations. The subordinate clause containing *kexol* signifies a rise or fall on a scale of some type. The resulting situation described in the matrix clause is also a scalar one. In a positive correlation, both clauses signify an increase, or both signify a decrease as in (8a) and (8b). In a negative correlation, one clause signifies an increase while the other signifies a decrease as in (8c). There are other subordinators in Hebrew which function in a similar way, such as *kol od/zman* (as long as) – as in *Kol od tilmad, tatsli’ax* (as long as you study, you will succeed) – and *barega she* (the moment that). These subordinators convey the meaning of dependency of one situation on another situation, meaning that one situation cannot occur in the absence of another, but they do not convey the meaning that an increase in one situation is dependent on an increase in the other.

Regardless of the type of correlation, positive or negative, the scalarity of the matrix clause is linked to the scalarity expressed in the subordinating clause. As a result, the interpretation of the correlation is often that of causality, namely that the situation in the clause containing *kexol* is the instigator to the second clause as in (8b). However, that does not necessarily have to be the case. A correlation may also imply that the same factor is the instigator of both clauses. For example, in the sentence “The more children watch television, the more they eat”, it is not necessarily the case that watching television is what makes them eat. It might be that these two activities correlate, but boredom is the cause of both.

#### 4.2.5 Constructional meaning of conditionality and temporality.

A fifth constructional meaning is typically associated with formal statements, documents or insurance policies. In these cases, the scalar interpretation of the construction is significantly reduced. Instead, the meaning of *kexol* in these sentences can be roughly paraphrased as ‘if’ or ‘when’. Consider examples (9a–c):

<sup>7</sup> See for example Martin (1992); Paradis (2000); Ghesquière & Davidse (2011).

<sup>8</sup> See Ziv, Y. Existential: Modern Hebrew.

- (9) a. *Namshix lehakpid al betixut kexol shezo tidaresh.*  
 we will continue to attend to safety as all that it will be needed  
 ‘We will continue to attend to safety if/when it is required.’
- b. *Bush hitsia lesin et ezrat artsot habitit kexol shezo tidaresh.*  
 Bush offered to China ACC. help U.S.A as all that it will be required  
 ‘Bush offered China the help of [the] U.S.A if/when it were required.’
- c. *Al hamevutax laxtom ki hu me’asher limsor lexevrat*  
 on the policyholder to sign that he approve to pass to company  
*habitua kol informatsya kexol shezo tidaresh.*  
 insurance any information as all that it will be required  
 ‘The policyholder should sign that he approves of the delivery of all information to the insurance company if/when it is required.’

The meaning of *kexol* in (9) is very unique and as such difficult to describe and define. It seems that certain contexts do not allow for the vagueness or imprecision which may be associated with scalarity as illustrated in the previous meanings of *kexol*. Contexts such as insurance policies or formal statements require the highest degree of precision and thus cannot allow for an imprecise interpretation.<sup>9</sup>

An attempt to replace *kexol* with other alternative conditionals such as *kol zman she* (as long as), *im* (if) and *ka’asher* (when) may be plausible, but these connectors do not seem to convey as strongly the intricacy of the meaning associated with *kexol*. It appears that this unique use of *kexol she* here has come to function as a more inclusive condition compared to the alternatives. Whereas the alternative connectors quite explicitly differentiate between conditionality and temporality, *kexol* seems to convey a more unified meaning of both ‘if’ and ‘when’. *Kexol* seems to include a variety of conditions which may arise at various times, thereby allowing for **all** possible conditions that may emerge at any time in a situation. In this sense it may be referred to as conveying one of the irrealis moods, suggesting a situation that is yet to happen. In an attempt to resolve the ambiguity in the meaning of *kexol* here, several Hebrew speakers, including a lawyer and a linguist, have been consulted. They have all found it difficult to identify and paraphrase the precise meaning of the examples in (9). It may be the case that this inclusive meaning is the reason for the apparent ambiguity of meaning. This ambiguity is a characteristic of the constructional meaning, which aims in fact to present the ultimate condition and allow more precision through covering as many contingencies as possible. It is important to note that the semantic environment which characterizes such contexts typically consists of verbs of request and that the conditional has been conventionalized and lexicalized in such formal contexts.

In sum, the analysis presented in this section provides evidence of non-compositionality and coercion which are realized in accordance with the syntactic environment and the semantic content filling the open slot in the construction. The compositional meaning of *kexol* indicating similarity or comparison is bleached and constructional non-compositional, and thus unpredictable aspects of meanings arise in different environments. Different types of constructional meanings, namely scalar modification, hedging, concession, correlation and conditionality, become effective only when *ke* ‘as’ and *kol* ‘all’ appear together in the construction, leading to different types of interpretation.

## 5. Grammaticalization and speech-act orientation

The purpose of this section is to account for the emergence of the *kexol* construction and the way it came to be incorporated in speakers’ linguistic knowledge. Fried (2013) argues that construction grammar was motivated by the need to describe this knowledge and further by the need to incorporate in this description principles that are beyond structural properties and which govern the use and interpretation of linguistic units in real communication.

According to Gisborne and Patten (2013), the literature on grammaticalization presupposes the existence of constructions, but recently the role of context has been further examined with respect to the relationship between a grammaticalizing unit and its surrounding. Grammaticalization was redefined to propose that the process affects multi-word patterns rather than individual lexical items and thus began

<sup>9</sup> This is not to say that conditionals are always very clear and precise. As Gvura (2000) shows in a thorough analysis of conditionality in Hebrew legal contracts, a multiplicity of conditions accompanied by numerous outcomes may and do in fact result in vagueness and ambiguity.

to attribute the surrounding context with an increasing importance (p.93). Grammaticalization then according to Fried is a syntagmatic, context-sensitive phenomenon which seeks to identify gradual changes in the relationship between a form and its meaning in a linguistic pattern (Fried, 2013, p.422).

Fried further suggests that grammaticalization is an instance of constructionalization i.e. the emergence of a new grammatical construction which was formerly a sequence of independent material. The stimulus of constructionalization is an interaction of semantic, pragmatic and syntagmatic factors which combine to create “an integrated whole – a grammatical construction” (p.422). The motivation for analysing *kexol* within the framework of grammaticalization is that it will allow us to follow the motivation for the transition from a sequence consisting of independent compositionally interpreted material to an internally dependent non-compositionally interpreted construction.

As the motivation for the emergence of a construction is the interaction of semantic, pragmatic and syntagmatic factors, this section will now argue that the various meanings of the construction have developed as a result of speech-act orientation toward the participants in the speech act: the speaker, the hearer and the speech act. Few researchers have dealt with the correlation between grammaticalization and speech-act orientation. Several researchers have studied Hebrew discourse markers in relation to discourse orientation (Ziv, 2001; 2006; Polak-Yitzhaki and Maschler, 2016; Maschler, 2018) or other grammaticization scales (Ariel et al., 2015), suggesting no change from lexical to grammatical but rather a change in configuration. The current discussion aims to provide an account of the way the construction has become more grammatical under the influence of speech-act orientation, through a demonstration of historical data which first attest to the development of a particular meaning. As Narrog (2017) suggests, the concept of speech-act orientation does not entail a fixed order of directionality or even the existence of all parts of the triad. The discussion to follow in this paper thus views the grammaticalization path of the construction as exhibiting three types of tendency. It will be apparent in the analysis that meanings sometimes overlap and that they may develop under one and the same influence but at different periods. The important point to remember is the way a grammaticalization path traverses along the lines of orientation towards the participants of the speech act, namely, speaker, hearer and discourse as described in the following diagram:

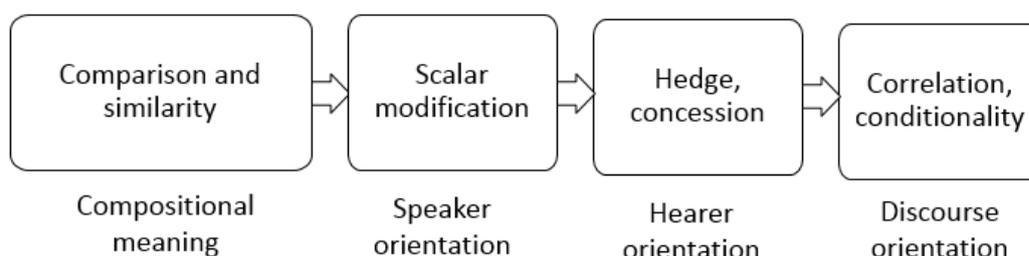


Figure 1. Grammaticalization path of *kexol* according to speech act-orientation

As illustrated in Figure 1, prior to its emergence, the combination of the prepositional prefix *ke* ‘as’ and the quantifier *kol* ‘all’ yielded the meaning of comparison and similarity. The reading here is purely compositional, as *ke* may be attached to a variety of other expressions which show similarity, comparison or adherence to a standard, thereby exhibiting no internal dependency. This meaning is well attested to in the Bible, often illustrating adherence to a standard:<sup>10</sup>

- (10) a. *Vaya’as Noah kexol asher tsiva oto Elohim.*  
 and did Noah as all that commanded him God  
 ‘And Noah did as all that God commanded him.’ (Genesis, Chapter 6, verse 21)
- b. *Sima lanu melex leshaftenu kexol hagoim.*  
 put upon us king to judge us as all the non jews  
 ‘Put upon us a king to judge us like all non-Jews.’ (Samuel I, Chapter 8, verse 5)

<sup>10</sup> The examples in 10 are taken from <https://www.responsa.co.il>.

In (10), the clause containing *kexol asher* functions to show adherence to an instruction or command. The meaning of similarity and comparison is very well reflected in these cases, as obeying a command is in fact performing it based on the standard set by the authority issuing the command. One could in fact measure to what extent the performance resembled the command.

The expression of speaker orientation and perspective has led to the emergence of the construction and to its function as a scalar modifier. An independent string of words has come to function as a conventional form-meaning pairing expressing scalar modification while exhibiting idiosyncrasy and non-compositionality. The first instances attesting to this stage are found at the end of the 11th century as illustrated in example (11):<sup>11</sup>

- (11) *Venatanu et benoteinu lefi da'atenu*  
 and we give Acc. our daughters according our opinion  
*veet benoteixem nikax lanu kexol asher naxpots.*  
 and ACC. your daughters we will take to us as all that we shall wish  
 'And we give our daughters as we see fit and your daughters we shall take as we wish.'  
 (Rashi's commentary on Genesis, Chapter 34, verse 20, end of 11th century).

The example in (11) provides a first attestation of the interaction of subjectivity and grammaticalization. Athanasiadou (2007, p.556) suggests that "degree modifiers intensify, that is they scale the properties or the qualities upwards or downwards; they index speaker's perspective on an entity". Based on this description and as explained in Section 1, it appears that speakers' tendency to express their perspective and attitude towards the content of their utterance invokes a scale which changes the reading of comparison and similarity to a reading of a degree modifier. This shift reflects a change from an objective description of the relation of similarity between what the speakers in (11) will take and what they want to take, to a subjective evaluation of this similarity. In other words, the speakers now subjectively assess that this similarity is under their control, in that what and how much they will take now depends on the extent of their will. This scalar modification of the activity of wishing is then motivated by a speaker-orientation perspective of the extent and intensity of the wish.

The speaker's subjective evaluation is reflected in the shift to scalar modification through the syntactic environment. The verbs used with the compositional meaning of comparison and similarity designate activities which may be objectively measured in terms of the extent to which they were performed based on the standard issued. In contrast, verbs associated with the scalar use call for an entirely different reading. These verbs designate mainly mental and abstract activities such as wish, intention, ability, capacity, existence and aspiration as exemplified in example (5). Such activities are inherently subjective and therefore unmeasurable.

The interrelation between rising degrees of subjectivity and grammaticalization is supported by several morphosyntactic changes observed in the scalar meaning. In order to describe these changes which resulted in a higher degree of grammaticalization, I rely on Traugott's (2008, p.234) discussion of the development of 'sort of'. Traugott specifies the types of developments which are characteristic of the grammaticalization of 'sort of':

- i. "Change from strings in which the NPs are free to occur with any determiner and in any number, to strings with significant constraints in in this regard".
- ii. "Change from strings in which both NPs have literal, concrete meanings, to ones in which NP1 becomes far more abstract".
- iii. "Functional shift in which NP1 comes to serve a grammatical modifier function".
- iv. "Coexistence of older and newer meanings and uses".

Similar characteristics can be observed in the transition from the compositional to the constructional stage in the grammaticalization of *kexol*. The preposition in the string was initially replaceable by other prepositions of similarity as specified in Section 4.1 and thus exhibited a higher degree of independence.

<sup>11</sup> <https://www.responsa.co.il>.

Now it shows a higher level of dependency by excluding other possible combinations. The concrete verbs and nouns observed in the compositional meaning at the time of the Bible (example 10) changed at the end of the 11th century (example 11) to more abstract ones of ability, perception and capacity as can also be seen in verbs such as ‘hear’ and modals such as ‘can’ and ‘be able to’. From the function of denoting similarity and comparison, the string shifts to the function of a modifier. In addition, it should be noted that the literal meaning has not entirely disappeared. Rather, an additional pragmatic inference of scalarity is added to the literal meaning.<sup>12</sup> This is known as *layering* (Hopper, 1991), which results in a polysemous reading. In other words, the compositional meaning of adherence to a standard is maintained but reduced. This phenomenon is also acknowledged by Bybee (2010), suggesting that an overlap of meanings or polysemy may be observed for long periods of time.

The second part of the triad of speech-act orientation, namely hearer orientation, appears to be a motivating factor for the development of a hedge and concession. The example in (12) from around the middle of the 16th century is one of the first attestations of the meaning of hedge:<sup>13</sup>

- (12) *Beyamim mitxalfim left xeshbon ze er'u kama dvarim kexol*  
 in days changing according calculation this occurred some things as all  
*hanir'e beseder Olam.*  
 appears in *Seder Olam*  
 ‘According to this calculation several things occurred probably in *Seder Olam*.  
 (The Great Order of the World).’ (*Maor Einayim*, 1573)

Sentence (12) provides a particularly interesting demonstration of the development of intersubjectification or hearer-orientation meaning. In this example, one can observe a speaker’s hedging comment on the limitation of his or her commitment to the validity or feasibility of the statement that follows. In other words, the speaker attenuates his commitment to the proposition by suggesting that he or she may not be able to arrive at the highest point on a scale. In the case at hand, *kexol hanir'e* is literally translated as ‘according to all things seen’. Yet, in example (12) it is translated to ‘probably’. This suggests that the speaker acknowledges a possible difficulty in arriving at a point where indeed all things are seen and that he might be at a point where only some of the things are in fact seen. This reading results in a clear message to the addressee: beware, I may have not provided you with all the information necessary. In other words, the speaker is signalling to the addressee to take the statement with a grain of salt, thereby expressing orientation towards the hearer and taking the hearer’s position into consideration.

A much later development which may have also been motivated by hearer orientation is that of concession, first attested to around the middle of the 20th century, as shown in example (13):<sup>14</sup>

- (13) *Hamiut veyihiye hu gadol kexol sheyhiye mekabel*  
 the minority and will be it big as all that it will be receives  
*efes nivxarim.*  
 zero representatives  
 ‘The minority – no matter how large it is – receives zero representatives.’  
 (*Al Hamishmar* newspaper, 1947)

Narrog (2017) suggests that a similar use of the modal ‘may’ conveys a concessive meaning thereby expressing orientation towards the hearer. In (13) too, the speaker “takes into account an imaginary objection or criticism by the hearer and presents his or her own counter-argument to it” (p.37). Narrog further suggests that a concessive meaning also has a “discourse-building component” (p. 37) in creating discourse coherence. This idea is supported by Livnat (2006, 2010). Accordingly, concession expresses the idea that despite an expectation for a causal relation, such a relation does not exist. Livnat argues

<sup>12</sup> According to Bybee (2013, p.51) “chunks or conventionalized sequences have a tendency over time to develop special pragmatic implications that can lead to special meanings. They can also develop idiosyncrasies of form in a variety of ways”.

<sup>13</sup> Ma’agarim, The Historical Dictionary Project. <http://maagarim.hebrew-academy.org.il>.

<sup>14</sup> Historic Jewish Press <http://www.jpress.nli.org.il>.

that concession has a unique argumentative value and as such has a central role in shaping the dialogical character of the discourse. It appears then that concession is to be interpreted from the perspective of both hearer and discourse orientation.

The perspective of orientation towards discourse as defined by Narrog (2017) is observed at about the same time as the example of concession. Under this influence the meanings of correlation and conditionality have developed. The meaning of conditionality and temporality is a rather modern use as was already discussed in Section 3.2.5. Instances attesting to the development of correlation start to appear towards the end of the 19th century, as illustrated in example (14):<sup>15</sup>

- (14) *Halo ro'im anu ki kexol asher tits'ad hahaskala kadima*  
 then see we that as all that will progress the education forward  
*vehaba'arut axoranit hasin'a kofetset alenu.*  
 and illiteracy backwards hatred jumps upon us  
 'We see then that the more education makes progress forward and illiteracy backwards, the  
 more hatred jumps upon us.'  
 (*Sin'at Olam Le'am Olam* 1882 in an essay on hatred between societies).

It appears that the speaker is witnessing an ongoing process of a correlation between education progressing forward and illiteracy backwards, and a rise in attacks of hatred as felt by the speaker. A strong piece of evidence of this correlation is the speaker's choice of the verb 'see' which strengthens the idea that this is a continuous process that he is witnessing. A second piece of evidence is the choice of adverbs 'forward' and 'backward' which also seem to strongly imply that the entire situation involves rising and decreasing degrees as characteristic of correlations today.

Based on Narrog's concept of discourse orientation, it may be suggested that the meaning of correlation expresses a speaker's perspective of a dependency relation between clauses in the sentence. The variant *kexol she* has expanded its function beyond modification of some action. In this example it expresses a relation of dependency between propositions in order to describe the type of relation which holds between them, and as a result to obtain textual coherence in a similar way that other discourse connectors obtain. In terms of grammaticalization, the meaning of correlation has grammaticalized in the sense that it no longer conveys a lexical concrete meaning, but rather it now has an abstract and schematic meaning and in fact conveys a procedural instruction regarding the interpretation of discourse relations. As a result of the grammaticalization process, the construction has become a conventional way to mark this relation in discourse.

Regarding the grammaticalization of the construction denoting conditionality and temporality, it might be suggested that the meaning of if/when has become fixed in such contexts as legal contracts and documents and formal statements. The idea that this use has been grammaticalized in such contexts is supported by several factors. First, the frequency of this use in such contexts is relatively high. Second, the compositional meaning of comparison and similarity, which has not been entirely bleached in other uses, has been completely bleached in this use. In addition, the scalar meaning apparent in all other uses has also been entirely bleached. Furthermore, it is almost impossible to paraphrase the meaning of the construction in this use. The construction seems to be fully grammaticalized in such contexts so as the degrees on the scale are no longer relevant to a description of a proposition; rather, every level on that scale has now become an absolute condition.

## 6. Conclusion

The analysis presented in this paper demonstrates the complexity and diversity of the partially schematic Hebrew construction *kexol*. It has shown that various aspects of interpretation are associated with the construction and that it has become a conventional way for expressing meanings such as scalar modification, hedging, concession, correlation and conditionality. The discussion demonstrates how the semantic, syntactic and pragmatic context imposes unpredicted features of interpretation on the construction. The analysis further suggests that a triad of speech-act-orientation tendencies has motivated the emergence of the construction, resulting in a wide array of present-day uses. Speaker

<sup>15</sup> Ma'agarim, The Historical Dictionary Project. <http://maagarim.hebrew-academy.org.il>.

orientation has been observed in the primary stages of grammaticalization and has led to a bleaching of lexical meaning of comparison and similarity and to the development of a grammatical function of a scalar modifier characterized by a schematic and procedural function. Other tendencies, namely hearer orientation and discourse orientation, have led in later stages of grammaticalization to the development of additional schematic and procedural functions which direct the addressee in the interpretation of discourse.

Addressing the implications of the analysis on *kexol*, three principal aspects may be raised. The first aspect is that the constructionist perception of language as a network of constructions receives support as a tool which can explain the ways in which constructions of different size and schematicity are related to each other. Further support is provided to the view of language as an inheritance network which captures constructions as organized on a continuum, as compared to a view which classifies language into central and peripheral members which are governed by different rules.

A second aspect of the analysis which has implications for a wider view of language is the significance given by the constructionist perspective to pragmatic and contextual considerations. As the pattern *kexol* exhibits semantic, syntactic and pragmatic features, a constructionist approach receives further validation for its appropriateness in providing an accommodation for a description which incorporates these features to create a whole and reveal its meaning.

A third aspect addresses the interaction of speech-act orientation and grammaticalization. It appears that whereas grammaticalization theory allows us to track the emergence of the construction, namely the shift from a loose sequence to a tightly bound sequence, it would not have been possible without incorporating speech-act orientation into the analysis of *kexol*. Integrating the speaker's perspective towards the various participants of the speech event in the description of the emergence of the *kexol* and its later development appears to be a useful means of identifying the direction of development.

In sum, construction grammar and grammaticalization theory seem to go along the same lines of the view of language as a continuum. As Gisborne and Patten put it, if grammaticalization is non-rigidly defined as the transition along a continuum from more lexical to more grammatical or from more substantive to more schematic, then the structure of language according to the constructionist approach as a continuum of schematicity corresponds precisely with this view.

## References

- Anderson, S.R., 1982. Where's morphology? *Linguistic Inquiry*, vol. 13, no. 4, pp. 571-612.
- Ariel, M., Elitzur D., Du Bois, J.W. and Linzen, T., 2015. Pronominal datives. The royal road to argument status. *Studies in Language*, vol. 39, no. 2, pp. 257-321.
- Athanasiadou, A., 2007. On the subjectivity of intensifiers. *Language Sciences*, vol. 29, pp. 554-565.
- Bai, Y., 2014. A usage-based study of the *just me* construction. *German Cognitive Linguistics Association*, vol. 2, pp. 127-145.
- Bat-Zeev Shyldkrot, H., 2017. Between grammaticalization and constructionalization. *Helkat Lashon*, vol. 50, pp. 94-116. (in Hebrew)
- Beck, S., 1997. On the semantics of comparative conditionals. *Linguistics and Philosophy*, vol. 20, no. 3, pp. 229-271.
- Boas, H. C., 2013. Cognitive construction grammar. In: T. Hoffmann and G. Trousdale, eds. *The Oxford handbook of construction grammar*. Oxford: Oxford University Press, pp. 233-254.
- Borsley, R., 2004. An approach to English comparative correlatives. In: S. Müller, ed. *Proceedings of the fourth conference on head - driven phrase structure grammar*. Stanford: CSLI Publications.
- Boye, K. and Harder, P., 2014 (Inter)subjectification in a functional theory of grammaticalization. *Acta Linguistica Hafniensia*, vol. 46, no. 1, pp. 7-24.
- Budts, S. and Petré P., 2016. Reading the intentions of Be going to. On the subjectification of future markers. *Folia Linguistica Historica*, vol. 37, pp. 1-32
- Bybee, J. L., 2010. *Language, usage and cognition*. Cambridge: Cambridge University Press.
- Bybee, J. L., 2013. Usage-based theory and exemplar representations of constructions. In: T. Hoffmann and G. Trousdale, eds. *The Oxford handbook of construction grammar*. Oxford: Oxford University Press, pp. 49-69.
- Choueka, Y., 1997. *Rav-Milim. A comprehensive dictionary of modern Hebrew*. Jerusalem: Center for educational technology, Miskal and Steimatzyk.
- Croft, W. and Cruse, D. A., 2004. *Cognitive linguistics*. Cambridge: Cambridge University Press.

- Culicover, P. and Jackendoff, R. S., 1999. The view from the periphery: The English comparative correlative. *Linguistic Inquiry*, vol. 30, pp. 543-571.
- Deppermann, A., 2011. Constructions vs. lexical items as sources of complex meanings. In: P. Auer and S. Pfänder, eds. *Constructions: Emerging and emergent*. Berlin: De Gruyter, pp. 88-126.
- Diewald, G., 2010. On some problem areas in grammaticalization studies. In: K. Stathi, E. Gehweiler and E. König, eds. *Grammaticalization: Current views and issues*. Amsterdam: John Benjamins, pp. 17-50.
- Fanego, T., 2010. Paths in the development of elaborative discourse markers: Evidence from Spanish. In: K. Davidse, L. Vandelanotte and H. Cuyckens, eds. *Subjectification, intersubjectification and grammaticalization*. Berlin: De Gruyter Mouton. pp. 197-237.
- Fillmore, C. J., 1986. Varieties of conditional sentences. In: F. Marshall, A. Miller and Z.S. Zhang, eds. *Proceedings of the third eastern states conference on linguistics*. Columbus, Ohio: Ohio State University, pp. 163-182.
- Fillmore, C. J., Kay, P. and O'Connor, M.C., 1988. Regularity and idiomaticity in grammatical constructions: The case of let alone. *Language*, vol. 64, no. 3, pp. 501-538.
- Fried, M., 2013. Principles of constructional change. In: T. Hoffmann and G. Trousdale, eds. *The Oxford handbook of construction grammar*. Oxford: University Press, pp. 419-437.
- Ghesquière, L. and Davidse, K., 2011. The development of intensification scales in noun-intensifying uses of adjectives: sources, path and mechanisms of change. *English Language and Linguistics*, vol. 15, no. 2, pp. 251-277.
- Gisborne, N. and Patten, A., 2011. Construction grammar and grammaticalization. In: H. Narrog and B. Heine, eds. *The Oxford handbook of grammaticalization*. Oxford: Oxford University Press, pp. 92-104.
- Goldberg, A. E., 2006. *Constructions at work: The nature of generalization in language*. Oxford: Oxford University Press.
- Goldberg, A. E., 2011. Constructions: A new theoretical approach to language. In: A. E. Goldberg, ed. *Cognitive linguistics: Critical concepts in linguistics*. London and New York: Routledge, vol. 3, pp. 30-42.
- Goldberg, A. E., 2013. Constructionist approaches. In: T. Hoffmann and G. Trousdale, eds. *The Oxford handbook of construction grammar*. Oxford: Oxford University Press, pp. 15-31.
- Goldberg, A. E. and van der Auwera, J., 2012. This is to count as a construction. *Folia Linguistica*, vol. 46, no. 1, pp. 109-132.
- Gvura, A., 2000. *Syntactic studies in the legal contract*. Beer-Sheva: Ben Gurion University of the Negev Press. (in Hebrew).
- Gzella, H., 2006. Die Entstehung des Artikels im Semitischen: Eine 'phönizische' Perspektive. *Journal of Semitic Studies*, vol.51, pp. 1-18.
- Hilpert, M., 2014. *Construction grammar and its application to English*. Edinburgh: Edinburgh University Press.
- Hoffmann, T., and Trousdale, G., 2013. Construction grammar: Introduction. In: T. Hoffmann and G. Trousdale, eds. *The Oxford handbook of construction grammar*, Oxford: University Press, pp. 1-14.
- Hopper, P. J., 1991. On some principles of grammaticalization. In: E.C. Traugott and B. Heine, eds. *Approaches to grammaticalization*. Amsterdam/Philadelphia: John Benjamins Publishing Company, vol. 1, pp. 17-35.
- Jackendoff, R., 2013. Constructions in the parallel architecture. In: T. Hoffmann and G. Trousdale, eds. *The Oxford handbook of construction grammar*. Oxford: University Press, pp. 70-92.
- Kay, P., 2013. The limits of (construction) grammar. In: T. Hoffmann and G. Trousdale, eds. *The Oxford handbook of construction grammar*. Oxford: University Press, pp. 32-48.
- Kay, P. and Fillmore, C. J., 1999. Grammatical constructions and linguistics generalizations: The 'what's X doing Y' construction. *Language*, vol. 75, pp. 1-33.
- Kay, P. and Michaelis, L.A., 2012. Constructional meaning and compositionality. In: C. Maienborn, K. von Stechow and P. Portner, eds. *Semantics: An international handbook of natural language meaning*. Berlin: Mouton de Gruyter, vol.3. pp. 2271-2296.
- Langacker, R. W., 1998. On subjectification and grammaticalization. In: J.P. Koenig, ed. *Discourse and cognition: Bridging the gap*. Stanford: CSLI, pp. 71-87.
- Livnat, Z., 2006. Argumentation is scientific discourse: The use of concession. *Helkat Lashon* 37-38, pp. 75-84. (in Hebrew)

- Livnat, Z., 2010. *Rhetoric of the scientific article. Language and the discourse community*. Ramat Gan: Bar Ilan University Press. (in Hebrew)
- Malkin, R., 1976. The word "all" its meaning and opposites. In: M. Zahari, M. Zand and A. Tartakover, eds. *Hagut Ivrit Bebrit Hamoatsot [Hebrew contemplation in the U.S.S.R.]* Jerusalem: Biblos. pp. 36-42. (in Hebrew)
- Martin, J., 1992. *English text: System and structure*. Amsterdam: John Benjamins.
- Maschler, Y., 2018. From matrix clause to prototypical discourse marker: The construction ('ani) lo yode'a/yoda'at '(I) dunno (M/F)' from a pragmatic typological perspective. *Leshoneno* ('Our Language') 80 (1-2), pp. 137-166. (in Hebrew)
- McCawley, J. D., 1989. The comparative conditional constructions in English, German and Chinese. *Proceedings of the 14th annual meeting of the Berkeley Linguistics Society*, pp. 176-187.
- Michaelis, L. A., 2004. Type shifting in construction grammar: An integrated approach to aspectual coercion. *Cognitive Linguistics*, vol. 15, pp. 1-67.
- Narrog, H., 2012. *Modality, subjectivity and semantic change*. Oxford: Oxford University Press.
- Narrog, H., 2017. Three types of subjectivity, three types of intersubjectivity, their dynamicization and a synthesis. In: D. Van Olmen, H. Cuyckens and L. Ghesquière, eds. *Aspects of grammaticalization*, Berlin/Boston: Mouton De Gruyter, pp. 19-46.
- Nir, B. and Berman, R. A., 2010. Parts of speech as constructions, the case of Hebrew 'adverbs'. *Constructions and Frames*, vol. 2, no. 2, pp. 242-274.
- Nuyts, J., 2001. Subjectivity as an evidential dimension in epistemic modal expressions. *Journal of Pragmatics*, vol. 33, pp. 383-400.
- Pajusalu, R., 2008. Pragmatics of quantifiers: The case of Estonian kõik 'all'. *Journal of Pragmatics*, vol. 40, pp. 1950-1965.
- Panther, K.U. and Thornburg, L.L., 2009. From syntactic coordination to conceptual modification: The case of the nice and Adj construction. *Constructions and Frames*, vol. 1, no. 1, pp. 58-86.
- Paradis, C., 2000. Reinforcing adjectives: A cognitive semantic perspective on grammaticalization. In: R. Bermúdez-Otero, D. Denison, R. Hogg and C. McCully, eds. *Generative theory and corpus studies: A dialogue from 10 ICEHL*, Berlin: Mouton de Gruyter, pp. 233-58.
- Peretz, Y., 1967. *The relative clause*. Tel-Aviv: Dvir. (in Hebrew)
- Polak-Yitzhaki, H. and Maschler, Y., 2016. Disclaiming understanding? Hebrew *ani lo mevin/a* ('I don't understand') in everyday conversation. *Journal of Pragmatics*, vol. 106, pp. 163-183.
- Quirk, R., Greenbaum, S., Leech, G. and Svartvik, J., 1985. *A comprehensive grammar of the English language*. London /New-York: Longman.
- Rickford J. R., Wasow, T., Zwicky, A. and Buchstaller, I., 2007. Intensive and quotative ALL: Something old something new. *American Speech*, vol. 82, no. 1, pp. 3-31.
- Schwenter, S.A. and Traugott, E.S., 2000. Invoking scalarity. The development of *in fact*. *Journal of Historical Pragmatics*, vol. 1, no. 1, pp. 7-25.
- Sullivan, K., 2011. If and when it's a construction ... *Constructions and Frames*, vol. 3, no. 2, pp. 236-260.
- Traugott E. C., 2003. From subjectification to intersubjectification. In: R. Hickey, ed. *Motives for language change*, Cambridge: Cambridge University Press, pp. 124-139.
- Traugott E. C., 2008. Grammaticalization, constructions and the incremental development of language: Suggestions from the development of degree modifiers in English. In: R. Eckardt, G. Jager and T. Veenstra, eds. *Variation, selection, development-probing the evolutionary model of language change*. Berlin/New York: Mouton de Gruyter. pp. 219-250.
- Traugott, E.C., 2010. (Inter)subjectivity and (inter)subjectification: A reassessment. In: K. Davidse, L. Vandelotte and H. Cuyckens, eds. *Subjectification, intersubjectification and grammaticalization*. Berlin/New York: De Gruyter Mouton, pp. 29-71.
- Traugott, E.C. and Trousdale, G., 2013. *Constructionalization and constructional changes*. Oxford: University Press.
- Ziv, Y., 2001. Pashut: discourse markers in Spoken Hebrew. *Hebrew Linguistics*, vol. 48, pp. 17-29. (in Hebrew)
- Ziv, Y., 2006. *Naxon* and *ma*: Codification of givenness and surprise in the processing of information. In: A. Maman and S. Fassberg, eds. *Studies in Language*, vol. 10, pp. 65-73. (in Hebrew)

Ziv, Y., (n.d.) Existentials: Modern Hebrew. In: G. Khan, ed. *Encyclopedia of Hebrew language and linguistics*, Brill. [Accessed 1 December 2017]. Available at: <http://referenceworks.brillonline.com>.  
Zusman, O., 2016. Concession. *Helkat Lashon*, vol. 49, pp. 52-74. (in Hebrew)

### **Corpora**

Bar Ilan University. *Online Responsa Project*. <https://www.responsa.co.il> .

Tel Aviv University, The National Library, *Historic Jewish Press*. <http://www.jpress.nli.org.il>.

The Academy of the Hebrew Language. *Ma'agarim, The Historical Dictionary Project*.  
<http://maagarim.hebrew-academy.org.il>.

The National Middle East Language Resource Center (NMELRC). *HebrewCorpus*.  
<http://hebrewcorpus.nmelrc.org>