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Analogical Interference in Constructionalization: The Emergence of the Hebrew Desiderative *ba le-X Y*

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Abstract

This paper investigates the constructionalization of the Hebrew desiderative *ba le-X Y* ('X feels like Y'; lit. 'come.PRS.M.SG to-XY'), which exemplifies the less frequent pathway from motion to desire. Drawing on Diachronic Construction Grammar framework, we provide an account that considers both the construction's ancestor and similar desiderative constructions existing at the time of emergence. Based on qualitative and quantitative analyses, we suggest *ba le-X Y* evolved via partial realization of a metaphoric construction conceptualizing experiencers as the goals of emotional forces, e.g. desires and urges. We further argue that this deviation in realization was modeled after a semantically similar, superficially resembling, desiderative construction which is more syntactically compacted. The motivation for this analogical interference is explained by the production and comprehension advantages of the resulting target construction. This paper then provides support for analogy-based interference effects in the formation of form-meaning pairings.

Keywords

constructionalization – analogy – desideratives – Hebrew language

1 Introduction

Motion verbs, specifically deictic ones such as English *come* and *go*, have received considerable attention in studies investigating diachronic paths of change. It has been shown in numerous works that such verbs change in similar pathways cross-linguistically, giving rise to various constructions, e.g. future markers and auxiliaries (see Kalev, 2017; Petré, 2016). This study aims to contribute to the research on the changes deictic motion verbs may undergo by investigating a less frequent trajectory, namely the pathway from motion to desire (Dragomirescu & Nicolae, 2020: 304). The construction under examination is the Hebrew desiderative *ba le-XY* ('X feels like Y'; lit. 'come.PRS.M.SG to-XY').¹ Semantically, the construction refers to the materialization of desires and urges (Dattner, 2008). Syntactically, this desiderative is a dative construction, with the Experiencer represented by the dative nominal (ibid.), as demonstrated in (1).²

- (1) *ba* *li* *lalexet* *la-jam*
 come.PRS.M.SG to.me go:INF to.DEF-sea
 'I feel like going to the beach.'³

The pathway from motion to emotion has been researched in recent years in a few studies based on either diachronic or synchronic evidence (Dattner, 2008; Dragomirescu & Nicolae, 2020; Rubinstein & Tzuberi, 2018). The overall picture arising from these works is that motion verbs come to be associated with inner states by a metaphorical extension of the sense 'reaching a goal' (e.g. 'hunger/troubles/thoughts came to me'). This paper takes this account as a point of departure and explores how the development from motion to desire may be influenced not only by the semantic and grammatical features of the original motion structure but also by the characteristics of similar desiderative constructions existing in the language. This examination is motivated by

1 In this paper, we analyze this construction as well as related expressions mostly in the present tense due to corpus limitations (see Section 3). Though the constructions examined here may also be inflected in the past and future tenses, these inflections are of much lower distribution compared to the present tense forms (see Melnik, 2019: 176).

2 All the examples in this paper are taken from either the HeTenTen corpus or the Historical Jewish Press, described in detail in Section 3. If the example is not accompanied by year of occurrence, it is taken from the HeTenTen corpus, as in example 1.

3 The glosses in this paper follow the morpheme-by-morpheme conventions of the Leipzig Glossing Rules. Additional abbreviations in the paper that are not included in the rules are: (a) CS – construct state; (b) MOD – modifier.

both intuitional and theoretical grounds; in present-day Hebrew, for instance, speakers may refer to the emergence of desires and urges not only by the construction *ba le-XY* but also by the desiderative *mitxafek le-XY* ('X feels like Y'; lit. 'desire.PRS.M.SG to-X Y'). Like *ba le-XY*, this is a dative experiencer construction. The semantic and grammatical similarity of the constructions is illustrated in (2), in which the two structures appear in a coordinate sentence.

- (2) *lo* *mitxafek* *li* *kinuaχ* *aχfav*
 NEG desire.PRS.M.SG to.me dessert now
ba *li* *leeχol* *arβuχat* *eβev*
 come.PRS.M.SG to.me eat:INF meal.CS evening
 'I don't feel like dessert right now, I feel like eating dinner.'

As will be shown in greater detail below, the desiderative *mitxafek le-XY* emerged in Hebrew *prior* to the evolution of *ba le-XY*. Thus, two questions arise:

- (a) What was the motivation for the emergence of the desiderative *ba le-XY*?
 (b) What interaction, if any, took place between the "older" desiderative construction and the emergence of the new one?

Both of these questions relate to the issue of similarity relations between constructions and their role in facilitating linguistic change. In recent years, a growing literature on semantic and functional variants has shown how analogical thinking, resulting from phonological, morphological, syntactic, semantic, and/or pragmatic similarities between constructions, may play a key role in language change (e.g. Fonteyn & Maekelberghe 2018; Van de Velde, 2014). Specifically, such studies demonstrate how similar constructions may analogically align even in the lack of a functional gap as speakers' recognition of both concrete and relational correlations between constructions may motivate them to extend the range of usage of a linguistic sign. Since this extension is modeled after a formally and semantically resembling construction, the innovation is obscured, thereby enabling comprehension (De Smet & Fischer, 2017). Diachronically, this account sheds light on certain issues of linguistic change that have received growing attention in the past decade, e.g. why a particular change occurs at one point in time and not another and why the target construction displays distributional, semantic, and functional properties which are not accounted for by the features of its source construction (Noël, 2016). Consider, for example, the English modifier *as good as*. As detailed in

De Smet and Fischer (2017), this construction first evolved into combining with bare infinitives in *do*-support contexts ('he does as good as confess'). Later it developed into appearing with finite verbs ('he as good as confessed'). However, this trajectory is not attested for other similar degree modifiers such as *all but*, which took the opposite path. De Smet and Fischer (2017) argue that the path direction of the modifier *as good as* may be explained by the existence of constructions combining with *do* at the time of the modifier's initial change e.g. *as much as* ('he does as much as overcast fair weather') and *do good* ('he did good'). Due to both formal and semantic similarities, these constructions facilitated the use of *as good as* in *do*-support contexts. This case study demonstrates that change may be steered by the availability of constructions sharing formal and semantic properties with a linguistic item at a given time, facilitating extension in usage by constructional interaction, i.e. analogical thinking (ibid.: 264).

In light of the discussion above, this paper adopts a usage-based approach to explore the potential influence of the construction *mitχafek le-XY* on the emergence of the desiderative *ba le-XY*. Such approach is highly suitable for exploring constructional interaction as it conceptualizes units of language as dynamic and subject to reshaping (Kemmer & Barlow, 2000). Specifically, we draw on Diachronic Construction Grammar framework (DCxG), the historical branch of Construction Grammar (CxG). Contrary to other theories, DCxG emphasizes the role of language users as cognizers associating similar constructions in instigating linguistic change. Accordingly, studies couched in DCxG focus on cognitive motivations for change such as analogical thinking (De Smet et al., 2018). This framework then bears empirical merit for a corpus-based study exploring how existing constructions other than a historical ancestor may influence the emergence of a similar target construction as in the case of the desideratives *ba le-XY* and *mitχafek le-XY*.

As will be discussed below based on both qualitative and quantitative analyses, the emergence of the construction *ba le-XY* may be explained both in terms of its source construction and the influence of *mitχafek le-XY*. In the diachronic analysis presented in Section 5, we illustrate how various semantic and grammatical characteristics of the desiderative *ba le-XY* are licensed by its ancestor, a metaphoric structure conceptualizing experiencers as the goals of emotional forces (the Theme), e.g. *ba li χefek leexol* ('come.PRS.M.SG to.me desire eat:INF'). Since the desiderative *ba le-XY* and its ancestor share the same meaning but differ in the overt coding of the Theme (e.g. *χefek*; 'desire'), we suggest the desiderative *ba le-XY* emerged via partial realization, i.e. the production of only a part of a conventional structure (Bauer & Hoffmann, 2020). As will be argued below, this account does not explain the motivation for this

partial realization as well as its recent occurrence in the second half of the 20th century. We suggest based on a comparison between *mitxafek le-XY* and *ba le-X Y*'s ancestor that speakers partially realized utterances such as *ba li xefek leexol* ('come.PRS.M.SG to.me desire eat:INF') due to the existence of a semantically similar construction which is more syntactically compacted, e.g. *mitxafek li leexol* ('desire.PRS.M.SG to.me eat:INF'). The analogical alignment between the two constructions regarding syntactic structure has clear production benefits as the resulting construction, i.e. *ba le-XY*, is a less complex phonological form. Furthermore, the innovation facilitates comprehension as it is modeled after an existing entrenched construction. We suggest these factors played a role in speakers' motivation to partially realize the source construction of the desiderative *ba le-XY*, leading to the emergence of a new sign in the language system.

The paper proceeds as follows: Section 2 elaborates on the theoretical framework of this study, DCxG. Section 3 introduces the corpora and method. Section 4 presents the synchronic analysis which concentrates on the similarities and differences between the desideratives *ba le-XY* and *mitxafek le-X Y* in present-day Hebrew. Section 5 discusses the constructionalization of the desiderative *ba le-X Y* in relation to both its ancestor and *mitxafek le-X Y*. Section 6 concludes the paper.

2 Theoretical Background

In recent years, CxG has been one of the fastest-growing linguistic theories for the study of various phenomena, including diachronic change (Goldberg, 2019: 6). Though CxG encapsulates various approaches to language which differ in their degree of formalization and cognitive orientation (for a full review see Hoffmann & Trousdale, 2013), they all share several tenets. One of these tenets is that the basic units of language are constructions – symbolic pairings of form and meaning, i.e. signs. These signs may represent linguistic items at various levels of complexity and abstraction, e.g. morphemes, lexical words, and grammatical structures. An example of such a sign is the symbolic link between the form [subj [v obj₁ obj₂]] and the meaning of transfer known as the ditransitive construction (e.g. 'he gave her a coke'; Goldberg, 2003: 220). This symbolic pairing of form and meaning is differentiated from actual instances produced by language users, termed constructs. Another important tenet in CxG is the view of language as a construct-i-con, i.e. a taxonomic network of constructions (ibid.: 219). In this network, similar constructions are associatively connected by vertical and horizontal links. Vertical links connect constructions to broader generalizations that license their form and meaning, for

instance, the connection between the construction *What's X doing Y?* and the Subject-Auxiliary Inversion. These connections are considered as hierarchal in the sense that lower-level constructions such as *What's X doing Y?* inherit their characteristics from more abstract constructions (ibid.: 223). In contrast, horizontal links connect constructions at the same level of abstraction, e.g. the quantifiers *kind of X* and *a bit X*. These links then capture the degree to which distinct constructions share features, with highly similar constructions more strongly associated (Van de Velde, 2014). Such constructions are assumed to be organized in constructional families, i.e. groupings of similar constructions linked via vertical and horizontal links. The constructional network then is viewed as comprised of numerous such constructional families (Sommerer, 2020: 91).

In DCxG framework, symbolic, vertical, and horizontal links are key notions in the conceptualization of change. The symbolic link between form and meaning, for instance, is the basis for the description of grammatical and semantic change in the work of Traugott & Trousdale (2013). In this study, change is defined in terms of the effects on the internal dimensions of constructions, i.e. form, meaning, or both. Changes to either the form or meaning of constructions are regarded as constructional changes whereas changes to both the form and meaning result in the creation of a new symbolic link, i.e. the emergence of a new construction in the network. This process is termed constructionalization. As Traugott (2020) notes, during constructionalization, the vertical and horizontal links grounding a construction in a certain constructional family weaken. In this process, the construction becomes more closely associated with members of a different constructional family which display similar semantic and grammatical features to those acquired by the construction as it changes. Thus, constructionalization entails both a differentiation from an original constructional family and an attraction to a new one. This process is often gradual, proceeding through a series of constructional changes accumulatively affecting the form and meaning of a construction (Traugott & Trousdale, 2013: 27). As insinuated in the Introduction, these constructional changes may be motivated by analogical thinking; constructions sharing properties with a certain linguistic sign may impact its linguistic behavior regarding distribution, function, or syntactic realization (De Smet et al., 2018; Pijpops et al., 2018). Hence, linguistic change, as conceived in DCxG, does not occur in a void, but is rather the outcome of constructional interaction between similar nodes in the system (Fonteyn & Maekelberghe 2018: 514).

In what follows, we illustrate these theoretical notions in the examination of how the motion construction *ba le-XY* evolved into a desiderative. We particularly address the issue of analogical thinking, demonstrating how the

development of the desiderative *ba le-XY* was modeled after a similar existing construction, *mitḥafek le-XY*. Based on our corpus data, we argue that this construction facilitated the emergence of *ba le-XY* in a process of analogical interference, i.e. a deviation from the conventional usage of a construction due to analogical alignment.

3 Corpora and Method

The qualitative and quantitative analyses presented in the following sections are based on data extracted from two corpora – the HeTenTen corpus and the Historical Jewish Press database.⁴ HeTenTen is a web corpus that contains approximately a billion tokens (Adler, 2007). These tokens were harvested from various online sources (e.g. blogs, forums, and articles) in 2014 and were subsequently morphologically tagged. This corpus is accessible by SketchEngine, a language corpus management tool, which enables different search inquiries (Kilgarriff et al., 2004). The Historical Jewish Press database is comprised of a quarter of a million journalistic issues between the years 1783–2014. As opposed to the HeTenTen corpus, the Historical Jewish Press is not morphologically tagged and allows only exact searches of phonologically specified forms. Despite this disadvantage, this corpus is the only historical database of Hebrew covering the entire 20th century.

For reasons of manageability, we present the methods of the three kinds of analyses conducted in this research in separate subsections – the qualitative synchronic analysis (3.1), the qualitative diachronic analysis (3.2), and the quantitative analysis (3.3).

3.1 *The Qualitative Synchronic Analysis*

We first conducted a qualitative synchronic analysis of the semantic and grammatical properties of the desideratives *ba le-XY* and *mitḥafek le-XY* in present-day Hebrew to uncover the degree to which the two constructions are similar in contemporary usage. For this purpose, we collected the first 70 occurrences of each construction, with the dative argument restricted to pronouns. Each token extracted was manually coded according to grammatical structure, thematic roles, construal, and collocations. This analysis is presented in Section 4 and serves to both introduce the features of the constructions investigated in the subsequent diachronic analysis and set the

4 HeTenTen: <<https://www.sketchengine.eu/hetenten-hebrew-corpus/>>. Historical Jewish Press: <<https://www.nli.org.il/en/discover/newspapers/jpress>>.

ground for an account of constructional interaction by determining the extent to which the two desideratives are similar.

3.2 *The Qualitative Diachronic Analysis*

A qualitative diachronic analysis examining the historical usage of the surface forms *ba le-X* and *mitxafek le-XY* was conducted to account for the evolution of the desiderative *ba le-XY*. Two types of inquiry were undertaken. In the first inquiry, we aimed to trace the historical lineage of the desiderative construction and the mechanism involved in its constructionalization. For this purpose, we manually gathered data from the Historical Jewish Press by searching for the surface form *ba le-X*, with *X* restricted to pronouns. Since Hebrew is a revived language, with earlier strata mostly limited to liturgical and literary usage (Reshef, 2020), we consider change as a process occurring during speech continuity. Thus, we focused our search on the years since Hebrew revival at the beginning of the 20th century. We randomly sampled a total of 300 tokens between the years 1910–30, 1940–60, 1970–90. The tokens in each period were classified into different constructions according to thematic roles and construal. In the second inquiry, we aimed to determine the motivation for the constructionalization of the desiderative *ba le-XY*. We manually gathered data from the Historical Jewish Press by searching for the surface form *mitxafek le-XY*, with *X* restricted to pronouns. This search was limited to two timeframes – the one parallel to the emergence of the desiderative construction *ba le-XY* (1970–90) and the one preceding it (1940–60), as identified in the first inquiry. This data was compared with tokens of the linguistic ancestor of the desiderative *ba le-XY* according to criteria of grammatical structure, thematic roles, and construal to explore a potential constructional interaction in the emergence of *ba le-XY*.

3.3 *The Quantitative Analysis*

We conducted two quantitative analyses to better establish the degree to which the desideratives *ba le-XY* and *mitxafek le-XY* are similar in their complementation patterns both in present-day Hebrew and at the timeframe of the emergence of *ba le-XY*. For this purpose, we randomly sampled 200 tokens of each construction, with *X* restricted to pronouns, in two timeframes: 1970–1990 from the Historical Jewish Press and 2014 from HeTenTen. Each token was coded for complement type and verb type. A total of 7 tokens were excluded since they appeared in an interrogative form. The remaining tokens were compared by statistical tests to detect possible significant differences. Note that the two corpora used for the analyses are not genre-balanced. However, the two constructions are mostly found in sub-genres within the two corpora such as

narrative dialogues, interviews, blogs, and forums, which all share characteristics with spoken language (Biber & Egbert, 2018; Egbert & Mahlberg 2020). The synchronic quantitative analysis is presented in Section 4 and the diachronic quantitative analysis is presented in Section 5.

We now turn to describe the grammatical and semantic features of the desideratives *ba le-XY* and *mitxafek le-XY* in present-day Hebrew while focusing on their degree of similarity.

4 The Desideratives *ba le-XY* and *mitxafek le-XY* in Contemporary Hebrew

This section introduces the properties of the two desideratives which are at the focus of the diachronic analysis presented in Section 5. We outline the contemporary usage of the two constructions regarding grammatical structure, agreement, the event conceptualized, complementation patterns, compositionality, and frequency. To illustrate the degree to which the two desideratives are similar, we present formalizations of the constructions.

We begin our account with the constructions' grammatical features. As mentioned in the Introduction, both *ba le-XY* and *mitxafek le-XY* are dative experiencer constructions, with the Experiencer represented by the dative nominal (slot *X*) and the Event the Experiencer desires or needs to occur represented by the non-dative argument (slot *Y*). These constructions are distinguished from Hebrew canonical structures in parameters of verb agreement and constituent order. Consider, for instance, the tokens in (3).

- (3) a. *hu* *oxel* *lexem*
 he eat.PRS.M.SG bread
 'He is eating bread.'
- b. *ba* *lo* *glida*
 come.PRS.M.SG to.him ice_cream.F
 'He feels like having ice cream.'
- c. *mitxafek* *li* *tuna*
 desire.PRS.M.SG to.me tuna.F
 'I feel like having tuna.'

The sentence presented in (3a) follows Hebrew's canonical SVO order and the core argument denoting the initiator of the activity agrees with the verb. In (3b)-(3c), on the other hand, the predicates *ba* and *mitxafek* appear in a V1 position and do not display agreement with the non-dative argument. According to

Onishi (2001: 40), predicates that refer to inner states and feelings may require non-canonically marked subjects, e.g. subjects marked with a dative-case preposition, to indicate semantic contrast from canonical structures regarding irrealis and stativity. Accordingly, the canonical marking in (3a) indicates an active event which is currently taking place while *ba le-XY* and *mitχafek le-XY* in (3b)-(3c) respectively refer to a state of feeling which may or may not bring about the occurrence of an event. Note though that the desiderative construction *mitχafek le-XY* may display verb agreement in contrast to *ba le-XY* in present-day Hebrew. However, such instances are infrequent (Melnik, 2019: 179).

As outlined above, the grammatical difference between the desideratives *ba le-XY* and *mitχafek le-XY* and corresponding canonical structures relate to the events conceptualized by the constructions concerning actions vs. feelings. Accordingly, our corpus data reveals that both *ba le-XY* and *mitχafek le-XY* refer to sensations of urges and desires coming into existence. This claim is supported by the constructions' tendency to be complemented by concrete nouns, particularly objects of consumption, and their appearance with time adverbs such as *pitom* ('suddenly') and *axšav* ('now'), as illustrated in (4).

- (4) a. *pitom mitχafek li foko χam*
 suddenly **desire.PRS.M.SG** to.me chocolate_milk hot
 'Suddenly I feel like drinking hot chocolate milk.'
- b. *im ba le-χa dag tifkax mi-ze!*
 if **come.PRS.M.SG** to-you fish forget. from-it
 FUT.2.M.SG
 'If you feel like having fish, forget it!'

Previous studies have characterized the meaning of *ba le-XY* as a gut desire (Rubinstein & Tzuberi, 2018) or an impulse (Dattner, 2008: 33). These definitions highlight the semantic feature of non-volitionality which stands in contrast with a *want*-type of desire in which experiencers are conceived as initiators of their psychological states (Dattner, 2008: 31). However, the difference between a *want*-type of desire and an *urge* one is not easy to capture as the constructions assumed to denote non-volitionality, *ba le-XY* and *mitχafek le-XY*, may combine with both volitional and non-volitional verbs. The tokens in (5a)-(5b) demonstrate the appearance of *ba le-XY* and *mitχafek le-XY* with

TABLE 1 The distribution of complement type of the constructions *ba le-XY* and *mitxafek le-XY* in the HeTenTen corpus sample (2014).

	VP	NP	Other	Total
<i>ba le-XY</i>	163 (82.5%)	26 (13%)	9 (4.5%)	198 (100%)
<i>mitxafek le-XY</i>	161 (81.8%)	25 (12.7%)	11 (5.5%)	197 (100%)

ba le-XY and *mitxafek le-XY* may be complemented by a VP, NP, PP, clause, or appear with zero complements in the slot Y. We classified tokens as zero complements only in cases of metalinguistic usage, e.g. correcting speech or quoting a prefab. When the complement was retrievable from the co-text, we classified it under the appropriate category. Since the cell count of the PP, clause, and zero complements is either 5 or under in our data, we grouped them under the single category ‘Other’. Table 1 compares the distribution of complement types of *ba le-XY* and *mitxafek le-XY* in the HeTenTen corpus sample. We found no significant differences between the two constructions for this criterion (Chi-Square test: $\chi^2(2) = 0.2294$, $p > 0.05$).

Similar to the complementation pattern, we did not find a significant difference between *ba le-XY* and *mitxafek le-XY* in the distribution of verb type. In this analysis, we classified the VP tokens extracted from the previous analysis according to volitional verbs (e.g. *doing*, *writing*) and non-volitional verbs (e.g. *sleeping*, *crying*). Table 2 compares the distribution of verb types of *ba le-XY* and *mitxafek le-XY* in the HeTenTen corpus sample (Fisher exact test: $\chi^2(1) = 0.3043$, $p > 0.05$).

The quantitative analysis presented above indicates that the desideratives *ba le-XY* and *mitxafek le-XY* are not only similar regarding their semantics and grammatical structure but also concerning the distribution of their complementation patterns.

Based on the discussion above, we now present the formalizations of the two constructions as pairings of form (F) and meaning (M) to illustrate their similarities and differences. The formalizations introduced in Figure 1 below are adopted from Sommerer (2020). The superscript indices refer to correlations between form and meaning and illustrate the degree to which the construction is compositional, i.e. the degree to which its meaning is derived from its parts.

As shown in Figure 1, the constructions *ba le-XY* and *mitxafek le-XY* constitute symbolic pairings of similar semantic and syntactic components. However, *mitxafek le-XY* differs from its counterpart in the degree of compositionality,

TABLE 2 The distribution of verb type of the constructions *ba le-XY* and *mitxafek le-XY* in the HeTenTen corpus sample (2014).

	Volitional	Non-volitional	Total
<i>ba le-XY</i>	131 (80.4%)	32 (19.6%)	163 (100%)
<i>mitxafek le-XY</i>	137 (85%)	24 (15%)	161 (100%)

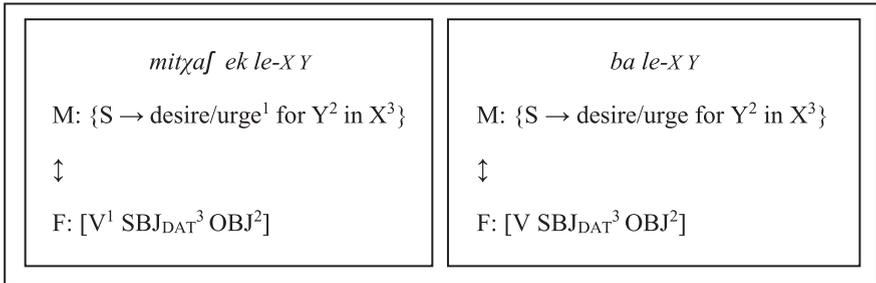


FIGURE 1 The formalizations of the desideratives *ba le-XY* and *mitxafek le-XY* as form-meaning pairings in present-day Hebrew.

as indicated by the superscript indices. Whereas the desiderative *ba le-XY* contains a motion verb, the desiderative *mitxafek le-XY* contains a verb derived from a root denoting desire (*χ.f.k*). In other words, *mitxafek le-XY*, contrary to *ba le-XY*, is an overt desiderative. Another important difference between the two not represented in Figure 1 relates to frequency. In present-day Hebrew, *mitxafek le-XY* is the less frequent desiderative construction, as illustrated in Figure 2 which presents the absolute frequencies of *ba li* and *mitxafek li* ('I feel like') with a verb complement in the HeTenTen corpus.

To sum up, this section has presented the grammatical, semantic, and distributional properties of the desideratives *ba le-XY* and *mitxafek le-XY* in present-day Hebrew. The analyses conducted have shown that the two constructions differ in frequency and degree of compositionality. However, they share many features relating to construal, grammatical structure, and complementation patterns which suggests the two constructions are strongly associated in the constructional family of dative experiencer constructions. In the following section, we explore how this strong association came about by examining the change path of *ba le-XY* from motion to desire in relation to both its source construction and *mitxafek le-XY*.

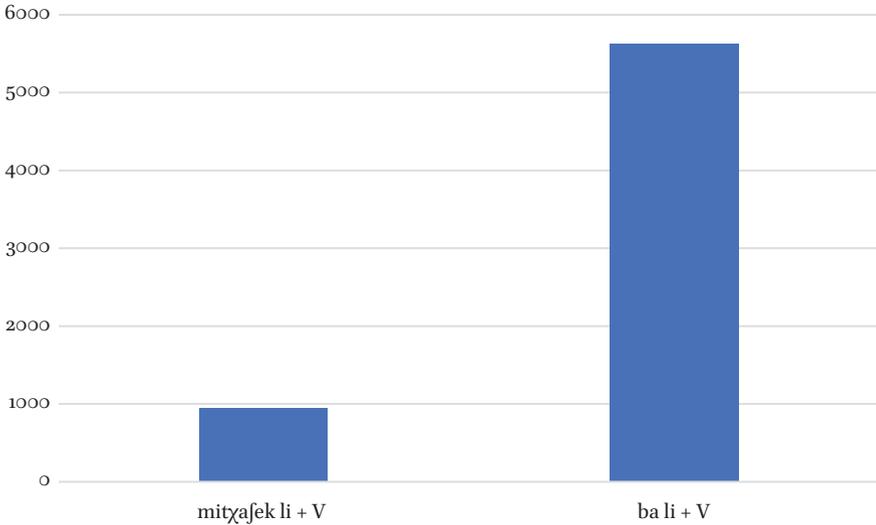


FIGURE 2 The absolute frequencies of *ba li* and *mitçafek li* with a verb complement in HeTenTen.

5 The Evolution of the Desiderative *ba le-XY*

This section offers an account of the change mechanism involved in the constructionalization of the desiderative *ba le-XY* from a motion construction (5.1) and the motivations for its change (5.2). The following subsection outlines the historical lineage of the desiderative construction by exploring its similarities and differences from other constructions with the surface form *ba le-X*. This examination traces the historical ancestor of the desiderative *ba le-XY* and suggests the construction emerged via partial realization of its source construction, i.e. the production of only a part of a conventional structure (Bauer & Hoffmann, 2020). This, in turn, led hearers to neo-analyze the new partial structure, i.e. assign it a new syntactic formulation and segmentation (Traugott & Trousdale 2013), thereby differentiating it from its ancestor and bringing about the constructionalization of the desiderative *ba le-XY*.

5.1 *The Historical Lineage of the Desiderative ba le-XY*

According to our corpus data, 4 constructions differing in thematic roles and construal appeared in the surface form *ba le-X* during the 20th century, including the desiderative construction. Two of these constructions indicate physical motion, as illustrated in (9) which features the co-referential dative construction.

- (9) *ba lo hafoteḵ paam ve-ftaim*
come.PST.3.M.SG to.him DEF-officer once and-two.F
 'The officer **came** once and twice.' (1920)

The other construction found is a metaphoric motion construction which conceptualizes a change in circumstances as a movement of a state toward an animate Goal. In (10), for example, the growth in the speaker's possessions via inheritance is described as a motion of the object inherited toward the speaker.

- (10) *ha-sefeḵ ha-ze ba li bikufa*
 DEF-book DEF-this **come.PST.3.M.SG** to.me in.inheritance
 'This book **came** to me by inheritance.' (1929)

As opposed to the constructions listed above, which are attested since the beginning of the 20th century, the desiderative *ba le-X Y* is found in the second half of the 20th century in our corpus, as demonstrated in (11).

- (11) *ba li lafiḵ*
come.PRS.M.SG to.me sing:INF
 'I **feel like** singing.' (1970)

Table 3 presents the number of tokens of each construction in the corpus sample according to the timeframes analyzed.

TABLE 3 The number of tokens of the constructions with the surface form *ba le-X* according to the timeframes examined in the corpus.

	1910–30	1940–60	1970–90	Total
<i>Physical motion</i>	6	2	-	8
<i>ba le-X</i>				
<i>Co-referential dative</i>	8	6	2	16
<i>ba le-X</i>				
<i>Metaphoric motion</i>	86	92	39	217
<i>ba le-X</i>				
<i>Desiderative</i>	-	-	59	59
<i>ba le-X</i>				
Total	100	100	100	300

As Table 3 illustrates, the constructionalization of the desiderative *ba le-X Y* reflects a recent language change during which the metaphoric motion construction *ba le-X* has declined in use. Based on the available data, we suggest that this decline is a result of the rise of a new desiderative construction expressing a meaning which has been previously denoted by a sub-construction of the metaphoric motion structure. Consider, for example, the tokens in (12).

- (12) a. *ba* *li* *χefek* *letsaxtseax* *ktsat*
 come. to.me desire clean:INF little
 PRS.M.SG
 ‘I feel like cleaning a little bit.’ (1951)
 (lit. ‘Comes to me a desire to clean a little bit.’)
- b. *lefeta* *ba* *li* *daxaf* *pnim-i* *letsajer*
 suddenly come. to.me urge inside-ADJ paint:INF
 PST.3.M.SG
 ‘Suddenly I felt like painting.’ (1970)
 (lit. ‘Suddenly came to me an inner urge to paint.’)
- c. *ba* *li* *χefek* *livkot*
 come. to.me desire cry:INF
 PRS.M.SG
 ‘I feel like crying.’ (1977)
 (lit. ‘Comes to me a desire to cry.’)

In the examples presented above, a change in the speakers’ psychological state is described as a movement of sensations of desires or urges to animate goals. Thus, in this subset of instances of the metaphoric motion construction the Goal is profiled as an experiencer (Rubinstein & Tzuberi, 2018). We refer to this subset as the goal desiderative sub-construction (GD). Since both the GD sub-construction and the desiderative *ba le-XY* refer to the materialization of desires and urges, we argue that the former is the historical ancestor of the latter. To further establish this claim, we now compare the semantic and grammatical properties of the two constructions.

Semantically, the meaning of both constructions may be captured by the decomposition presented in (6): The thought/experience of S awakens a desire/urge for Y in X. In (13), the thought of an event, e.g. going to someplace, acts as a stimulus that causes the emergence of a desire for the occurrence of said event in the Experiencer X. However, this meaning is expressed by

different constructions in each token: the GD sub-construction in (13a) and the desiderative *ba le-XY* in (13b).

- (13) a. *ba* *li* *χefek* *linsoa* *le-tel* *aviv*
 come.PRS.M.SG to.me desire go:INF to-Tel Aviv
 'I feel like going to Tel Aviv.' (1972)
 (lit. 'Comes to me a desire to go to Tel Aviv.')
- b. *ba* *li* *linsoa* *la-galil* *ha-maarav-i*
 come.PRS.M.SG to.me go:INF to.DEF-Galilee DEF-west-ADJ
 'I feel like going to the Western Galilee.' (1978)

As demonstrated in (13), the surface forms of the two constructions differ in the explicit appearance of the Theme role referring to an emotional force of desire. Moreover, syntactically they are parsed differently; the desiderative *ba le-XY* is a dative construction in which the subject is marked non-canonically with a dative-case preposition while the GD sub-construction inherits characteristics from the canonical subject construction. Thus, in the latter, the subject lexically represented by psychological nominals such as *χefek* ('desire') and *dayaf* ('urge') may precede the verb in the SVO canonical constituent order, as demonstrated in (14). In contrast, the desiderative *ba le-XY* is fixed as a non-canonical V1 sentence.⁵

- (14) *ha-dayaf* *ba* *mi-toχ* *hizdahut*
 DEF-urge come.PRS.M.SG from-inside solidarity
 'The urge comes from solidarity.' (1972)

However, despite the possible appearance of the GD sub-construction as a V2 sentence, there is a strong preference for its realization as a V1 clause similar to the desiderative *ba le-XY*. We found 318 tokens (93.8%) of a V1 realization compared to 21 tokens (6.2%) of a V2 realization of the GD sub-construction in the corpus. This preference may be explained by the notion ofthetic judgments as discussed by Melnik (2006). According to the author, V1 sentences in Modern Hebrew are associated withthetic judgments, i.e. reporting on new entities or events rather than making a statement on a contextually given entity. This association illuminates the strong preference for a V1 realization of

5 Note that in both the desiderative construction and the GD sub-construction, the dative nominal may appear before the verb, foregrounding the Goal/Experiencer.

the GD sub-construction that informs the emergence of a new psychological state.

Another aspect in which the constructions are similar relates to the inflection of the verb. Both in the desiderative *ba le-XY* and the GD sub-construction, the verb appears in the masculine singular form. In the case of the GD sub-construction, this is the result of the agreement between the psychological nominals, all in the masculine singular form, and the verb. We did not find evidence for the use of nouns in the feminine form denoting desire in this type of construction in the corpus. Yet, due to the restricted nature of our database, this finding needs to be taken with caution.⁶

The comparison presented above between the GD sub-construction and the desiderative *ba le-XY* regarding their semantic and grammatical features has shown that two constructions express the same meaning and they superficially resemble each other as V₁ sentences. We claim that the semantic and formal similarity between GD sub-construction and the desiderative *ba le-XY* indicates that the former is the ancestor of the latter based on previous studies that have demonstrated how the semantic and grammatical features of a target construction are constrained by the features of its ancestor (e.g. Hopper, 1991).

Notwithstanding, the two constructions differ in their syntactic parsing and the overt coding of the Theme role, as illustrated in Figure 3 which presents the formalizations of the two constructions.

As can be seen in Figure 3, the GD sub-construction is more compositional relative to *ba le-XY* as the semantic component ‘desire/urge’ is syntactically

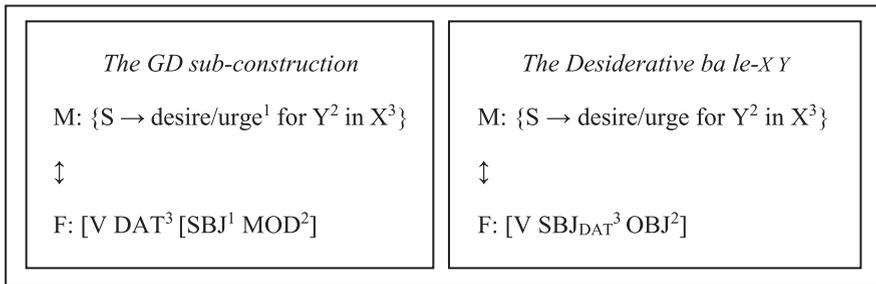


FIGURE 3 The formalizations of the desiderative *ba le-XY* and the GD sub-construction as form-meaning pairings at the time of emergence of the desiderative construction.

6 It is worth noting though that explaining the morpho-syntactic fixation of the desiderative construction in terms of its ancestor rather than a result of a change process is in line with ‘source-oriented’ accounts which reduce the need to invoke overarching principles (Cristofaro, 2019).

coded as the subject of the clause. This core argument expresses the Theme role, i.e. the emotional force reaching the Goal experiencer, which is absent in the desiderative *ba le-X Y*. Since the two constructions did not differ in their semantic properties at the time of emergence of the desiderative *ba le-X Y* as illustrated in Figure 3, we suggest the desiderative construction first appeared due to partial realization of the GD sub-construction, i.e. the production of only a part of the construction – the one without the subject argument playing the Theme (see also Trommer et al., 2015: 364). This process corresponds to the notion of ellipsis, yet following Bauer & Hoffmann (2020), we refrain here from using this term as it refers to the notion of underlying structures common in generative approaches as opposed to the surface-oriented view of usage-based theories, including CxG.

Following the argument presented above, the partial realization of the GD sub-construction had two consequences. First, hearers had to neo-analyze the new partial structure lacking a subject argument to make sense of the expression (Mosegaard Hansen, forthcoming). In other words, they had to assume the grammatical relations of a newly built structure (Traugott & Trousdale, 2013). As will be illustrated in the following subsection, the dative experiencer construction *mitxafek le-X Y* which has the same surface form and meaning as those of the desiderative *ba le-X Y* is attested prior to the emergence of *ba le-X Y*. Therefore, it is not improbable that hearers parsed the new structure based on this analogical model in line with Detges and Waltereit's (2002: 159) Principle of Transparency – “Match the sound chain that you hear with other sound chains of the language that you already know.” Thus, the new structure's neo-analysis brought about its differentiation from the constructional family to which its source construction is linked, i.e. the predicate-subject schema, and its attraction to the dative constructional family. Second, once in use, the new expression is free to collocate with participles not typically combined with its source construction. We found evidence for this type of use in our corpus toward the end of the 20th century, as demonstrated in (15). In this token, *ba le-X Y* is combined with the manner demonstrative *kaxa* ('like this') to mark an experiencer's strong volition. In contrast, we did not find evidence for a similar use of the GD sub-construction.

- (15) *kaafer faal et ha-tsair*
 when ask.PST.3.M.SG ACC DEF-youngster
madua nahag kax ana lo
 why behave.PST.3.M.SG so answer.PST.3.M.SG to.him

century, with first occurrences documented around the 1940s, as demonstrated in (16).

- (16) *mitxafek lo limnot et sxum ha-kesef*
desire.PRS.M.SG to.him count:INF ACC sum.CS DEF-money
 ‘He feels like counting the money.’ (1942)

We found evidence for the appearance of the construction with both volitional (17a) and non-volitional (17b) verbs since the time of its appearance. Similar to its use in present-day Hebrew, the construction indicates the materialization of desires and urges due to a stimulus. In (17a), for instance, the thought of playing the flute acts as a stimulus that awakens a desire for the occurrence of the event in the experiencer. In (17b), the stimulus is a situation the speaker finds himself in, i.e. a conversation with a so-called realist, which causes the emergence of an urge to laugh.

- (17) a. *mitxafek lo lefeta lexalel ba-xalil*
desire. to.him suddenly play:INF in.DEF-flute
PRS.M.SG
 ‘Suddenly he feels like playing the flute.’ (1960)
- b. *kfe-if mosex lidjat-i*
 when-man deliver.PRS. to.knowledge.CS-POSS.1SG
 M.SG
- ki hu vealy mitxafek li litsyok*
 that he realist desire. to.me laugh:INF
PRS.M.SG
 ‘When someone tells me he’s a realist, I feel like laughing.’ (1956)

As the tokens in (17) suggest, the construction *mitxafek le-XY* and the linguistic ancestor of the desiderative *ba le-XY*, the GD sub-construction, were both used to express the same meaning in the mid-20th century. This is further demonstrated in (18) in which the same construal – an external stimulus awakens a desire in the speaker to tell someone something- is represented by two constructions: the GD sub-construction (18a) and *mitxafek le-XY* (18b).

- (18) a. *ba li xefek lomax le-veuven*
come.PRS.M.SG to.me desire tell:INF to-Reuven
 ‘I feel like telling Reuven.’ (1958)
 (lit. ‘Comes to me a desire to tell Reuven.’)

- b. *mitxafek li lomar la-kahal*
 desire.PRS.M.SG to.me tell:INF to.DEF-audience
 ‘I feel like telling the audience.’ (1962)

However, as can be seen in the tokens in (18) above, the two constructions differ in the overt coding of the Theme role indicating an emotional force (e.g. *χεφεκ*; ‘desire’). Furthermore, the two constructions are anchored to two different constructional families – whereas the GD sub-construction is vertically linked to the canonical subject schema with the subject argument playing the Theme, the desiderative *mitxafek le-XY* inherits characteristics from the dative experiencer schema in which the subject argument is non-canonically marked by a dative-case preposition.

To better illustrate the similarities and differences between the two constructions as discussed above, we present their formalizations in Figure 4 below.

The formalizations in Figure 4 show that *mitxafek le-XY* and the GD sub-construction are compositional to the same degree as both constructions are overt desideratives. However, whereas the semantic component ‘desire/urge’ is syntactically coded in the subject argument in the case of the GD sub-construction, it is contained in the verb in the case of *mitxafek le-XY*. Thus, each construction syntactically compacts their shared compositional meaning differently, with *mitxafek le-XY* constituting a more syntactically compacted desiderative, i.e. it is comprised of a smaller number of syntactic components. The two constructions then are semantically similar and superficially resemble each other in surface form as V_i sentences containing dative arguments. However, they differ in the syntactic compaction of their desiderative meaning.

As mentioned in the Introduction, formal and semantic similarities between constructions may bring about change via analogical alignment. However, as De Smet and Fischer (2017) have shown, analogical thinking, though pervasive,

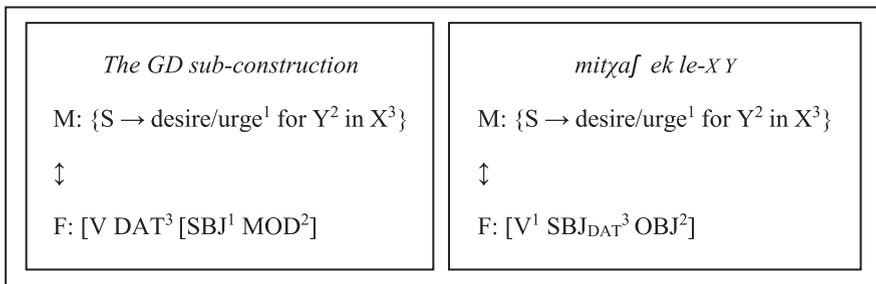


FIGURE 4 The formalizations of the construction *mitxafek le-XY* and the GD sub-construction as form-meaning pairings at the mid-20th century.

does not necessarily lead to change and the occurrence of analogical alignment depends on the way the constructional network is synchronically organized. We would like to extend this argument by suggesting that semantic and formal similarities between constructions may bring about alignment when it also presents some benefit for language users, either globally by filling a functional gap or locally, for instance, by facilitating production. There are good reasons to assume that the desiderative *mitχafek le-XY* analogically interfered with the realization of the GD sub-construction due to a local production advantage of the resulting expression. They are (a) the existence of a similar variant displaying a more syntactically compacted way for expressing the same desiderative meaning; (b) the potentially reduced cognitive effort involved in producing the less phonologically complex resulting expression; (c) the possible facilitation of comprehension as the innovation is modeled after an existing entrenched construction.

As discussed above, the desiderative *mitχafek le-XY* and the GD sub-construction have structural distinctions relating to their grammatical structure. However, Pijpops et al. (2018) have shown how semantic similarity and superficial formal resemblance may be potent factors in overriding structural differences between constructions and causing analogical interference via a process termed by the authors as constructional contamination. As the authors argue, this process indicates that language users do not always parse syntactic structures in detail, but rather store unanalyzed chunks. Following this work, it is plausible that speakers may have been inclined to analogically align the GD sub-construction and *mitχafek le-XY* despite structural differences between the two due to a strong superficial resemblance as V1 sentences in which same-position components represent identical thematic roles.

Following the line of argument presented above, we suggest that the evolution of the desiderative *ba le-XY* occurred in the second half of the 20th century because the analogical model for its development, *mitχafek le-XY*, emerged in Hebrew only a few decades preceding the change.

To further support our argument regarding analogical thinking as motivation for change, we present below the comparison of the distributional properties of the desideratives *mitχafek le-XY* and *ba le-XY* at the time of emergence of the latter, i.e. 1970–1990. We found no significant differences between the two regarding complementation patterns similar to their status in Contemporary Hebrew as presented in Section 4. This suggests that *mitχafek le-XY* and the new partially realized structure *ba le-XY* converged into a similar constructional profile since the time of appearance of the latter (see Hilpert, 2013: 201),

thereby providing support for the role of analogical alignment in the evolution of the desiderative *ba le-XY*.

Similar to the quantitative analysis presented in Section 4, we classified the complementation types of *ba le-XY* and *mitxafek le-XY* into three categories: VP, NP, and Other. Table 4 presents the distribution of complement types in the corpus sample at the time of emergence of the desiderative *ba le-XY* (1970–90). As mentioned above, we did not find significant differences for this criterion (Chi-Square test: $\chi^2(2) = 0.094, p > 0.05$).

Likewise, we found no significant difference between the two constructions for verb type at the time of emergence of the desiderative *ba le-XY* (Fisher exact test: $\chi^2(1) = 0.2705, p > 0.05$). Table 5 presents the distribution of verb types in the corpus sample.

The qualitative and quantitative analyses presented above overall suggest that the desideratives *ba le-XY* and *mitxafek le-XY* came to share semantic, grammatical, and distributional features due to the analogical alignment of *ba le-XY*'s ancestor and *mitxafek le-XY*, resulting in the synchronic existence of two similar constructions for expressing the materialization of desires and urges. This parallel existence may seem redundant, yet as De Smet (2019: 327) points out, this situation has a cognitive value for speakers since it provides them with several available options when coding a message. Moreover, the two constructions are not completely synonymous in present-day Hebrew since

TABLE 4 The distribution of complement type of the constructions *ba le-XY* and *mitxafek le-XY* in the Historical Jewish Press corpus sample (1970–90).

	VP	NP	Other	Total
<i>ba le-XY</i>	159 (80.2%)	25 (12.6%)	14 (7.2%)	198 (100%)
<i>mitxafek le-XY</i>	176 (88%)	17 (8.5%)	7 (3.5%)	200 (100%)

TABLE 5 The distribution of verb type of the constructions *ba le-XY* and *mitxafek le-XY* in the Historical Jewish Press corpus sample (1970–90).

	Volitional	Non-volitional	Total
<i>ba le-XY</i>	124 (78%)	35 (22%)	159 (100%)
<i>mitxafek le-XY</i>	146 (83%)	30 (17%)	176 (100%)

they differ in frequency. As discussed in Section 4, *mitxafek le-XY* is the less frequent desiderative expression in contemporary Hebrew. This is likely due to the cognitive effort involved in producing and processing the longer sound chain *mitxafek le-XY* relative to its variant *ba le-XY* (Zehentner, 2019: 294). Hence, in present-day Hebrew, the construction *ba le-XY* is more commonly used to express the emergence of desires and urges, outrivaling its analogical model.

6 Conclusions

This paper aimed to contribute to the study of the types of changes motion verbs may undergo by exploring a less frequent trajectory – the evolution from motion to desire. Specifically, we investigated the constructionalization of the Hebrew dative experiencer construction *ba le-XY* ('X feels like Y'; lit. 'come.PRS.M.SG to-X Y') which expresses the materialization of desires and urges. Grounding our account in DCxG framework, we examined the development of the desiderative *ba le-XY* in relation to both its source construction and a similar desiderative construction existing at the time, *mitxafek le-XY* ('X feels like Y'; lit. 'desire.PRS.M.SG to-XY').

Based on both qualitative and quantitative analyses, we have argued that the desiderative *ba le-XY* evolved from a metaphoric sub-construction profiling a Goal as the experiencer of external emotional forces of desires and urges, referred to as the GD sub-construction. Due to semantic and morpho-syntactic similarities between the source and target constructions on the one hand and syntactic differences relating to the explicit coding of the Theme role on the other, we have suggested that the mechanism of partial realization was involved in the change process of *ba le-XY*. This, in turn, has led to further constructional changes, e.g. neo-analysis and host-class expansion, which differentiated the newly built structure from its ancestor, resulting in its constructionalization. To explain the motivation for this partial realization, we explored the use of the desiderative *mitxafek le-XY* at the time of emergence of *ba le-XY*. Based on a comparison between *mitxafek le-XY* and the GD sub-construction, we have suggested that the former analogically interfered with the production of the latter by serving as a model for expressing the same desiderative meaning in a more syntactically compacted way. We have further argued that speakers may have been more inclined to analogically align the two constructions since this alignment presents speakers with a local benefit of facilitating production.

By illustrating that speakers may deviate in the realization of conventional structures due to analogical interference by similar constructions, this research joins previous studies in exemplifying the wide-spread effect of similarity relations on constructional interaction (e.g. De Smet et al., 2018; De Smet & Fischer, 2017; Pijpops et al., 2018). As opposed to isomorphism, these findings advance a view of language as a degenerate system in which there exist many-to-many mappings between forms and functions, enabling the system's evolvability (Van de Velde, 2014).

As a final point, it is worth noting that the mechanism of change presented here as the factor responsible for the emergence of the desiderative *ba le-XY*, partial realization, has not been given much attention in CxG literature (Bauer & Hoffmann, 2020: 6–7). It has been previously suggested that partial realization may be motivated by creative linguistic behavior (Hoffmann, 2017), communicative needs (Bauer & Hoffmann, 2020: 17), and stylistic effects (Heine, 2011). This paper contributes to this discussion by demonstrating that partial realization may also be motivated by cognitive factors. Future studies may expand our understanding of this matter by examining the influence of priming, activation, and other domain-general processes on partial realization.

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