

UNDERSTANDING THE LOCATIVE ALTERNATION IN *SWARM-DRIP* VERBS: EVIDENCE FROM HEBREW

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This paper is concerned with the locative alternation of *swarm-drip* verbs in Hebrew. It focuses on the predicate-argument relationship in the alternating construction with the location as subject, for example, הגן שורץ דבורים (the garden swarms with bees [lit. swarms bees]). This type of locative alternation has not received much attention in Semitic linguistics. In the pertinent literature, largely based on English, there is an effort to cope with the problem of what licenses the subject coding of the location and what is the syntactic position of the demoted actor-subject. Hebrew, unlike many Indo-European languages, realizes the demoted subject (e.g., “bees”) in direct object position (*Tamyiz* in Arabic). Based on the notion of viewpoint as an event-structuring concept, it is claimed that the realization of the construction in Hebrew corresponds directly to the vantage point from which the event is presented. Hebrew can thus contribute cross-linguistically to a better understanding of the construction at hand.

1. INTRODUCTION

The semantic and pragmatic correlates of the syntactic status associated with subjects represent one of the central issues in the study of argument realizations. The general assumption is that subjects correspond to some kind of prominence. Alternations in argument realization of the same morpho-phonetic predicate constitute a particularly challenging task. This is exactly the case with the argument alternation of *swarm-drip* verbs which are the topic of the present study, for example:

a. Tears drop from his eyes

דמעות זולגות מעיניו

b. His eyes brim with tears (lit. brim tears)

עיניו זולגות דמעות

This kind of argument alternation is widespread in a number of Indo-European languages (with some exceptions, e.g., German). In these languages the demoted subject denoting the actor (A) is marked by the instrumental *with*-case or by a preposition that includes instrument or means

as one of its senses (e.g., French *de*), whereas in Hebrew it is marked by the accusative.

Verbs participating in the locative alternation under discussion are typically intransitive. They denote a “situative” property, either of space-occupying or movement within a space. Our interest here is the location (L)-subject construction represented in example (b) above. In this construction, the semantic subject, that is, the actor, is demoted and the location-subject is promoted to a grammatical subject. However, the basic form of the verb does not change, except for agreement in gender and number with the new grammatical subject. The demoted subject is analyzed in Hebrew as “accusative of specification” (known in Arabic grammar as *Tamyiz*) and thus plays the role of an internal argument.¹

2. SEMANTIC PROPERTIES OF THE PREDICATE OF THE LOCATION-SUBJECT CONSTRUCTION

The verbs participating in the locative alternation under discussion can be grouped into five semantic classes.² In what follows, I will illustrate sequences in the location-subject construction in both Biblical and Modern Hebrew.³

1. Activities occurring over a long period constantly or repetitively, for example, דלף, נטף, ערף, נזל, זב, שתת, דלת (drip, brim); and (crawl/creep).

Examples from Biblical Hebrew:

אֶף-שָׁמַיִם יֵעֲרֹפוּ טֶלֶל

Also his heaven shall drop down dew (Deut 33:28)

¹ According to R. J. Williams, *Williams': Hebrew Syntax* (Toronto: University of Toronto Press, 2007), p. 22, “accusative of specification, also called accusative of limitation, states the sphere in which the verb applies or extent to which the verb occurs.” For example: חלה את רגליו (he was diseased in his feet; 1Kgs 15:23); לא נכהו נפש (let us not wound him with respect to life; Gen 37:21).

² Compare M. Salkoff, “Bees are Swarming in the Garden,” *Language* 59 (1983): 288–346; D. Dowty, “‘The Garden Swarms with Bees’ and the Fallacy of ‘Argument Alternation,’” in *Polysemy: Theoretical and Computational Approaches* (ed. Y. Ravin and C. Leacock; Oxford: Oxford University Press, 2000), p. 115.

³ For an extensive account see R. Halevy, “חילופי יחסות בפועלי שריצה וקרוביהם בעברית ומשמעותו של התמיז” (Case alternations in *swarm*-class verbs in Hebrew and the meaning of *tamyiz*), in *מחקרים בלשון יא-יב* (Linguistic studies 11–12; ed. A. Maman and S. Pasberg; Jerusalem: Hebrew University, 2008), pp. 89–106.

וְעַפְעֵפֵינוּ יִזְלוּ-מַיִם

And our eyelids will gush out with water (Jer 9:17)

יִטְפוּ הַהָרִים עֲסִיס

The mountains will drip with juice (lit. “will drip juice”) (Joel 4:18)

אֶל-אָרֶץ זָבַת חֵלֶב וְדָבָשׁ

To a land flowing with milk and honey (Exod 3:8)

וְשָׂרָץ הַיָּאֵר צִפְרָדַיִם

And the Nile will swarm with frogs (Exod 7:28)

בְּכֹל אֲשֶׁר תִּרְמַשׁ הָאֲדָמָה

Upon all (all the creatures) that the soil teems with (lit. “in all that the earth is creeping”) (Gen 9:2)

Examples from Modern Hebrew:

פָּנָיו שֶׁתַּחוּ דָם

His face was bleeding (lit. “dripped blood”)

מִצַּחוֹ נוֹטֵף זֵיעָה

His face runs with sweat (lit. “drips sweat”)

הַרְחֹב שׁוֹרֵץ סוֹחְרֵי סָמִים

The street swarms with drug dealers (lit. “swarms drugs-dealers”)

2. Predicates indicating animal sounds heard constantly, such as humming and grunting, used in a metaphorical meaning of “teem/ bustle with,” for example, רחש (buzz), המה (hum), שקק (grunt):

הַרְחֹב שׁוֹקֵק חַיִּים

The street grunts of life (lit. “grunts/ferments life”)

הַמְשָׂרָד רוֹחֵשׁ פְּעִילוֹת

The office bustles/stirs with activity (lit. “buzzes activity”)

הַקְּנִיּוֹן הוֹמָה אֲנָשִׁים

The mall bustles with crowds (lit. “is humming people”)

3. Predicates indicating a process of light emission, for example, קרן (radiate), יקד (blaze), ברק (shine/flash):

עיניו יוקדות שנאה

His eyes are blazing with hatred (lit. “blaze hatred”)

עיניו בורקות אש

His eyes are flashing with fire (lit. “flash fire”)

פניו קורנות אושר

His face is shining with happiness (lit. “radiates happiness”)

4. Predicates indicating smell transmission, for example, נדף/הדיף (reek, smell):

פיו מדיף אלכוהול

His mouth reeks of alcohol (lit. “reeks alcohol”)

5. Predicates indicating degree of occupancy or abundance, for example, שפע (abound, rampant with):

הוא שופע חמימות ולבביות

He is rampant with warmth and kindness (lit. “abounds warmth and kindness”)

The last subclass, that of *abound* verbs, is a special case in that it lacks any activity or movement altogether. Verbs belonging to all these groups are routinely realized in Biblical Hebrew in the imperfective forms of *yiqtol* and *we-qatal* or in the participle, that is, in forms corresponding to a dynamic process or state of affairs.

Abstract meanings, crucially metaphorical, tend to be realized in the location-subject construction more than in the unmarked actor-subject construction. The location-subject construction is, hence, far more productive in metaphorical interpretations than in literal ones, as also evidenced in the sequences illustrated above.

The activity or process that the verb conveys is characteristic of the entity it predicates. Considered from a lexico-semantic viewpoint, the construction in question can be characterized by the mutual predictability between the predicate and its argument (the complement). This can be generally de-

scribed as “impregnation” of the argument’s semantic features in the lexical structure of the predicate.⁴

3. POLYSEMY OR TWO DIFFERENT FUNCTIONS?

It is quite evident that the two alternating constructions cannot be regarded just as an argument alternation phenomenon. One of the most popular approaches to the locative alternation is the so-called “holistic-partitive effect.”⁵ According to this view, the location-subject construction is associated with what has been called a “holistic” or “affected” interpretation. That is, location-subject is understood to be in some sense completely affected by the action: *The garden swarms with bees* entails that the entire garden is full of swarming bees, whereas *Bees are swarming in the garden* does not.⁶ Cross-linguistically, the “holistic effect” of the location-subject construction motivates an accusative analysis for the verb. This is overtly demonstrated in the construction in Hebrew.

4. PERSPECTIVE AS AN EVENT-STRUCTURING NOTION

On the cognitive level, the notion of perspective can be utilized to understand the motivation for the argument alternation in the location-subject construction at hand. By “perspective,” I mean the speaker’s assessment of the hierarchical relations between participants in an event, which leads to its particular construal.⁷ Viewpoint is maintained here to be a potential semantic correlate of grammatical subjecthood.

Dowty claims that the location-subject construction is a lexical derivation, analogous to rules of word formation on the one hand and to processes of lexical semantic extension and metaphor on the other.⁸ In my opinion, the

⁴ Compare R. Halevy, “Contextual Modulation of Lexical Meaning,” in *Lexical Structures and Language Use* (ed. E. Weigand and F. Hundsnurscher; Tübingen: Max Niemeyer, 1996), 1:227–228.

⁵ The commonly used terms “partitive interpretation” and “holistic interpretation” were first introduced by S. Anderson, “The Role of Deep Structure in Semantic Interpretation,” *Foundations of Language* 6 (1971): 389–391.

⁶ Compare L. Glinert, *The Grammar of Modern Hebrew* (Cambridge: Cambridge University Press 1989), p. 166: “The quasi-object construction suggests a ‘superlative’ state of affairs...denoting ‘absolutely swarming with.’”

⁷ The idea of perspective as an orientational structure plays an important role in Charles Fillmore’s “Frame Semantics Theory.” He indicates that “messages can be divided into those [parts] that are ‘in perspective’ and those that are ‘out of perspective’” and explicitly attributes this structure to the domain of semantic roles. Compare C. Fillmore, “The Case for Case Reopened,” in *Grammatical Relations* (ed. P. Cole and J. Sadock; New York: Academic Press, 1977), pp. 60–61.

⁸ Compare D. Dowty, “‘The Garden Swarms with Bees,’” pp. 121–122.

difference in meaning between these constructions is constructionally determined, and it is not necessary to look for a basic and extended or derived construction. I believe that the location-subject construction represents a different structuring of the event, which it is viewed by the observer/speaker from a distinct perspective. More specifically, while the unmarked construction of the actor-subject subsumes an event of filling a space, the location-subject construction classifies the location according to the activity that takes place within it. This kind of classification is performed in a descriptive, vivid, and senses-oriented way.⁹ That is, behind the two alternating codings of the same “objective” piece of reality lie two different functions, for example:

אֶרֶץ זָבַת חֵלֶב וְדָבָשׁ

A land flowing with milk and honey (Exod 3:8)

וַיִּבְקַע-צוּר וַיִּזְבּוּ מַיִם

And he cleaved the rock and waters gushed out (Isa 48:21)

While a land flowing with milk and honey is a *categorization* of the Promised Land, water flowing from the rock is a description of an *actual event*. The term “polysemy” consequently does not seem adequate for explaining the difference in meaning between the two alternating constructions of the *swarm-drip* verbs under discussion.

According to this approach, the argument alternation in the location-subject construction portrays an event construal conceived from the perspective of the location-subject as a whole, that is, as a “container” characterized by the entities located within it. This is exactly what is implied in Hebrew (and Arabic) by the “accusative of specification.”

5. DETOPICALIZATION

Another way of approaching the argument alternation in question is to look for a motivation in terms of information distribution. In the unmarked actor-subject construction, the actor is the theme or topic, while the motion verb of *swarm-drip* type is the rheme or focus. Conversely, in the location-subject construction, the location-subject is promoted to a grammatical subject and becomes the theme, while the demoted subject (now the

⁹ Compare D. Dowty, “The Garden Swarms with Bees,” p. 122.

complement) becomes the focus argument, specifying and categorizing the location-subject. As a rheme, this demoted subject by definition cannot be definite or pronominal, as will be demonstrated further.¹⁰

Cross-linguistically, neutralized (or demoted) subjects of rhematic constructions tend to behave like objects.¹¹ Hebrew explicitly marks this argument by object marker (OM) את, particularly (but not exclusively) in existential and possessive predications, for example:

יש את הספר בספרייה

The library has this book (lit. “there-is OM the-book in-the-library”)

In a somewhat similar fashion, the neutralized/demoted subject in the *swarm-drip* alternation is realized in Hebrew as an object.

I argue, then, for a connection between presentational (*thetic*) sentences and the location-subject construction at hand. In both types of information structure, the semantic subject (agent-actor) is detopicalized and neutralized. Significantly, *thetic* constructions tolerate a discrepancy between the basic assertion of existence, appearance, or possession and the object-like behavior of the semantic subject. The locative alternation of the *swarm-drip* type in Hebrew with the “accusative of specification” can be explained as a result of a similar process. As already indicated, the *swarm-drip* predicate in our construction describes a typical state or activity of what the complement denotes and thus categorizes the location-subject according to the activity that occurs within it. To quote Bolinger, “fairly common is the use of a verb that represents a normal or customary action of a thing to suggest that the thing is there.”¹² Thus, pragmatically the overriding function of the discussed construction can be properly designated as presentational.

6. MORPHO-SYNTACTIC CORRELATES

In the location-subject construction, precise enumeration of the noun represented by the complement as well as overt definiteness of this noun is out

¹⁰ Compare D. Dowty, “‘The Garden Swarms with Bees,’” p. 121: “It ‘increases’ information about the Location argument while ‘decreasing’ information about the Agent argument, i.e. forces it to be less ‘referential.’”

¹¹ Compare K. Lambrecht, “When Subjects Behave Like Objects: An Analysis of the Merging of S in O Sentence Focus Constructions Across Languages,” *Studies in Language* 24 (2000): 611–682.

¹² Compare D. Bolinger, *Form and Meaning* (London: Longman, 1977), p. 97.

of place. The verb selects only an indefinite plural or mass term as complement, but not a singular noun-phrase.¹³ For example:

הנהר שורץ תנינים

The river swarms with alligators (lit. “swarms alligators”)

But:

?? הנהר שורץ את התנינים האלה

?? The river swarms with these alligators (lit. “swarms these alligators”)

?? הנהר שורץ עשרים וחמישה תנינים

?? The river swarms twenty-five alligators

A noun-specifying number is acceptable only if interpretable as an estimate, for example:

הנהר שורץ מאות תנינים

The river swarms with hundreds of alligators

Accordingly, there is a constraint against pronominalization of the demoted subject, for example:

?? הנהר שורץ אותם

?? The river swarms with them

Furthermore, due to the lexico-syntactic cohesion between the predicate and its argument, separation of the complement from the verb by intervening lexical material is impossible or may yield an odd utterance, for example:

?? הנהר שורץ כל השנה תנינים

?? The river swarms all year round with alligators

The unmarked construction, by contrast, does not lend itself to such restrictions. Consequently, it can be posited that the above-mentioned constraints of the location-subject construction stem from the information structure and the phrasal nature of its predicative unit (namely, of verb complement).

¹³ Compare M. Salkoff, “Bees are Swarming in the Garden,” p. 292.

7. SUMMARY

Our exploration of the locative alternation of the *swarm-drip* type has shown that the relationship between form and function in the location-subject construction in Hebrew is clearly motivated (in the Saussurean sense), unlike its parallels in most Indo-European languages. Another observation concerning the selection restrictions imposed by the verb has pointed toward the phrasal nature of the verb complement and the pragmatic function of the construction. Finally, it has been argued that it shares a crucial pragmatic feature with presentational sentences. The last two observations are undoubtedly also true for other languages where this construction prevails and therefore might prove applicable to other argument alternations (verb diatheses) as well.