Hebrew Idioms: The Organization of the Lexical Component

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1. Introduction

Semitic word-structure, consisting of the consonantal root and a vocalic template, has long been a focus of inquiry both in traditional and generative approaches to morphology and the lexicon. This striking typological property of the structure and meaning of (content) words has traditionally been taken as evidence for word-formation rules being *root based* in Semitic languages and importantly, also for the claim that entries listed in the mental lexicon are consonantal roots, rather than words (see e.g. Gesenius (1910), Berman (1978), McCarthy (1979, 1981)). In relation to Modern Hebrew, these assumptions have been particularly prevalent with regard to the verbal system of the language.

Subsequent research of Modern Hebrew derivational morphology, and in particular the derivation of new verbs, has uncovered evidence implicating that the word, not the root, ought to serve as input for (at least some) rules of verb formation. Specifically, evidence for the inadequacy of the traditional concept of the Semitic root has come from phenomena such as systematic consonant cluster preservation, and the transfer of vowel quality from the base category to derived verbs, as attested in the formation of denominal and deadjectival verbs, and other derivational processes (see e.g., Bolozky 1978, Horvath 1981, Bat-El 1994, Ussishkin 1999).

Beyond the immediate implications regarding the input to word formation, such morpho-phonological phenomena were also interpreted at the time as a source of evidence with regard to the structure of the mental lexicon of Hebrew. If words serve as inputs to word formation, then, contrary to the traditional consensus on lexical representations in Semitic, words (in the sense of vocalic-templates, interleaved with the consonantal root) must be listed in the lexicon of Hebrew. Thus, the items stored in the mental lexicon under this alternative view were verbs, in various diatheses, as well as nouns and adjectives. But reaching such a conclusion from the observed morpho-phonological evidence was dependant on the additional assumption (inherent in models of morphology throughout the seventies and eighties) that rules of word formation apply within the lexicon, i.e., that morphology is a subcomponent of the mental lexicon.

However, subsequent developments have motivated a significantly different type of architecture of grammar. On this architecture at least some rules of word formation may apply outside of the lexicon; namely, certain morphological processes take place within the syntactic derivation or must be fed by output from the syntactic derivation. See for instance Baker's (1988) theory of incorporation, Borer's (1988) parallel morphology, Anderson's (1992) model of a-morphous morphology, and most recently, Halle and Marantz's (1993) Distributed Morphology. Given that in such models phonological substance can get associated with terminal nodes after the application of syntactic operations (e.g. creation of complex heads by movement), the morpho-phonological correspondence say between denominal and deadjectival verbs and the corresponding noun or adjective is no longer evidence with regard to the kinds of forms listed in the mental lexicon. Within these alternative architectures, these morpho-phonological phenomena have to be accounted for, but they do not bear on

the nature of the entries stored in the lexicon. The question then remains unanswered: Are there derived entries in the mental lexicon?

The present study aims to assess the issue of root based versus word based lexical storage in Modern Hebrew on novel empirical grounds, that are independent of matters of morpho-phonological realization, and bear directly on the nature of the entries in the Hebrew lexicon.

We remain agnostic in the paper as to the status of late insertion of the phonological matrix of words. (Although this option seems empirically well-motivated in some cases, the issue has no direct bearing on the subject matter of our present investigation.) Accordingly, the term "word" (vs. "root") we use in the paper in discussing lexically listed items, is not meant necessarily to include phonological content; rather it refers to an abstract item derived from a root, i.e., one that has undergone (generative/derivational) processes, such as valence changing (henceforth, arity) operations or operations determining categorial status.

Major current developments in the architecture of grammar brought the role of the root and the issue of lexical operations back into theoretical focus, in a general, non-Semitic context. The past decade has seen recurring attempts to eliminate the active (operative) role of the lexicon altogether, and proposals to replace it by non-computational lists of items that are minimal "building blocks", namely roots (see Marantz (1997), Borer (2005), Ramchand (2006), Pylkkänen (2002), Alexiadou et al. (2004), and with respect to Semitic in particular, Doron (2003)).

Our study targets directly the question of what is listed in the mental lexicon based on Modern Hebrew, and uncovers novel (non-morphological) evidence that a lexicon of roots is in fact inadequate. The results obtained strongly support the conclusion that the mental lexicon must consist of words in the above sense. It is worth noting that the evidence presented ranges over the Hebrew verbal system, the domain that has served as the primary source of motivation for a traditional root-based conception of lexical representations. Our investigation focuses on voice alternations. "Voice" is used here in the broad sense of the term, referring to verbal diatheses, subsuming alternations such as the active-passive and transitive-unaccusative (causative-anticausative) alternations. The empirical material investigated comprises the set of phrasal idioms in Hebrew, specifically, idioms headed by a verb and including the verb's internal domain, excluding the external argument.

Our hypotheses and the corresponding quantitative, corpus-based study we conducted have uncovered robust evidence that (a) a non-computational lexicon storing roots is inadequate and consequently (b) attributing all derivation to the syntax could not be the right architecture. Rather, the grammar ought to include an active lexicon within which computational mechanisms can apply, and where the outputs of these operations get stored.

The paper is organized as follows. Section 2 motivates the use of idiom data as the source of empirical evidence for studying lexical representations and sets out the two relevant alternative hypotheses of idiom storage, the word based and the root-based hypotheses. Section 3 introduces some prima facie puzzling discrepancies manifested in the distribution of verb phrase idioms among a variety of verbal voice alternations and discusses the potential implications with regard to alternative theories of lexical storage. Section 4 presents the description and results of our corpus-based quantitative study assessing the distribution of four voice alternates in Hebrew phrasal idioms: transitive, unaccusative, verbal passive, and adjectival (stative) passive.

Section 5 provides a detailed discussion and account of the statistically significant results of these corpus searches. It is demonstrated that they follow straightforwardly under the word based theory of the mental lexicon. Finally, we discuss the implications of our empirical findings with regard to the availability of derivational operations in the lexicon.

2. On the Relevance of Idioms

The most profound issue raised by all varieties of idioms within the framework of generative grammar stems directly from the combination of their two core characteristics. On the one hand, the choice of their fixed lexical material is conventionalized and their meaning typically idiosyncratic, i.e., not predictable based on the (independently attested) meaning of their subparts. The unpredictability of the form-meaning relation of idioms is thus reminiscent of listed lexical items, such as roots/words. On the other hand, idioms exhibit internal structure which in the overwhelming majority of cases reflects, i.e., is homomorphic with, fully compositional syntactic constructions available independently in the syntax, as a result of Merge. The fundamental challenge idioms pose then is to develop a theory that can reconcile these two apparently conflicting facets of idioms. Progress towards meeting the above challenge can be expected to shed new light on competing conceptions of the architecture of grammar, and in particular, on the internal organization of the store of basic building blocks, namely the traditional mental lexicon or its alternatives.

The primary characteristic of being conventionalized forms associated with special, to varying degrees, unpredictable meanings entails that idioms, or at least the idiosyncratic information they contain, must be stored in mental representations. This conclusion immediately raises the question of what the particular place and manner of storage is.

As for where idiom information may be stored, in principle one can entertain two basic possibilities: an extra-grammatical and a grammatical approach. The extra-grammatical approach would assume that knowledge of the form and meaning of idioms is stored in the general part of speakers' memory, along with memorized non-linguistic knowledge such as facts of history or geography. This contrasts with the grammatical approach, according to which knowledge of idioms is part of linguistic knowledge, and idioms, or at least specification of their special (idiomatic) meanings, are listed in the mental lexicon. The choice between these two basic approaches is quite uncontroversial. First, the knowledge of form-meaning associations constituting idioms is linguistic in nature, and as such clearly distinct from knowledge of facts of history and other language-independent knowledge stored in the general memory. Moreover, as argued prominently in recent work by Jackendoff (1997) and Marantz (1997), there is no empirically motivated way to draw a sharp distinction between the special meanings of words and the special meanings of bigger (multi-word) expressions such as idioms. Thus, we can reasonably discard the extra-grammatical approach to the storage of idioms.

In spite of the broad consensus that idioms ought to be stored by the language faculty, the actual locus and manner of storage of idiom information within the grammar is controversial and far from well-understood. Idioms may be stored as items on a list independently of their subparts. Or idioms may be stored as subentries of one or more of their subparts.

The empirical domain of our investigation consists of Hebrew phrasal idioms headed (mainly) by a verbal predicate, henceforth, verb phrase idioms. We present evidence that they are not listed as independent entries on a list of their own. The question then arises what constitutes an idiom subpart relevant for idiom storage. Two basic hypotheses come to mind depending on one's conception of the nature of the mental lexicon: (i) The relevant subpart is at the word level ("word" understood in the sense of section 1) (Jackendoff 1997, Everaert 1990, Williams (2007) and others) or (ii) The relevant subpart is a root.

Theories underlying hypothesis (ii) represent a currently prevalent trend of an architecture of Grammar that reduces the generative lexicon to non-computational list(s) of lexical items. These items are necessarily minimal building blocks, namely, roots, as everything else is formed in the syntax (Marantz 1997, Borer 2005, McGinnis 2002). Obviously, under this view, the root must be the relevant subpart for idioms storage. Roots have to include specifications regarding special meanings, as no other element can be listed. For example, the Distributed Morphology framework (Halle and Marantz (1993)) postulates a specific list labeled the Encyclopedia, which relates roots to their meanings. The Encyclopedia would list the idiom *kick the bucket*, whose meaning is roughly 'die', as a subentry of the entry for the root *kick* specifying that the latter may be interpreted as 'die' in the environment of the direct object *the bucket*.

In general, if hypothesis (i) turns out to be more adequate, we have solid evidence that the mental lexicon must include information about actual words, say *nisgar* (unaccusative 'close') and *sagar* (the transitive 'close') in Hebrew. If hypothesis (ii) turns out to be on the right track, then the mental lexicon ought to include roots; in Hebrew that would most probably mean consonantal roots, e.g., *s*.g.r for 'close', which are characteristic of the morphological paradigm of Semitic languages.

Our investigation of Hebrew verb phrase idioms has turned out to offer a novel source of evidence in favor of a word based lexicon. We conducted systematic searches of idiom corpora, dictionaries and on-line inventories in order to examine the distribution of the various verbal voices in verb phrase idioms. The results reveal (i) a significant level of independence in the distribution of the various root-related voices, and (ii) a nonarbitrary distribution that can be straightforwardly accounted for if certain verbal diatheses are listed in the lexicon, while others are not as they are syntactic outputs. As it is unlikely that the internal structure of the lexical component would be subject to (parametric) variation "root based versus word-based", our conclusions with regard to the mental lexicon of Hebrew strongly suggest that the mental lexicon in general must include actual words.

The data base of our study comprises verb phrase idioms of both the compositional and the non-compositional type. Nunberg, Sag and Wasow (1994) draw a distinction between (a) *non-compositional* idioms (such as *kick the bucket, saw logs*), whose meaning cannot be distributed among their subparts, and (b) *compositional* idioms (such as *spill the beans, pull strings, keep track of*), which though conventionalized in form and sometimes opaque in interpretation, still have meanings whose elements can be seen as corresponding to the various subparts of the idiom.

3. Differences in the Distribution of Verbal Voices in Idioms

The distribution of verb phrase idioms across various diatheses has distinct empirical

consequences for the two alternative storage hypotheses: (i) the word based listing hypothesis, which assumes that idioms are stored as subentries of words appearing in the mental lexicon and (ii) the root based hypothesis, which assumes that idioms, i.e., special (idiomatic) meanings, must be specified as properties of roots. As noted in section 2, the root based hypothesis follows by necessity for theories that reduce the lexicon to non-computational lists of roots (Marantz 1997, Borer 2005, McGinnis 2002).

Since under the root based hypothesis lexical categories (verbs, nouns, etc.) are not listed in the mental lexicon at all, only roots are, it is a straightforward expectation that the existence and special meaning of a verb phrase idiom will be listed by the root, and should a priori be available for its various diatheses. In principle, higher functional heads that a given VP merges with in the syntax are not expected to influence the availability of its idiomatic meaning. In other words, for the same 'root + VP-internal material' combination we expect to have, or not to have, a particular idiomatic meaning available, quite independently of what functional heads the VP appears embedded under. This expectation is indeed valid for verb phrase idioms with regard to the variety of inflectional heads such as tense, and modality.[1] Yet, even upon casual inspection, the same turns out not to hold for the various voices, which in root based models are also formed in the syntax via functional heads.

Before illustrating that, it is important to note that we have set aside idioms having a fixed subject / external argument. For one thing, we wanted to remove any suspicion that these may be clausal idioms, as the latter are often argued to be of a distinct nature, which justifies a different storage method (Marantz (1984 p. 27), Nunberg, Sag and Wasow 1994). Moreover, in order to have a common basis for comparison across the different verbal diatheses, it was crucial to limit the searches to the VP internal domain, as idioms involving the external argument a priori cannot be headed by unaccusative verbs.

Consider first the transitive-unaccusative alternation. Examination of an informally collected set phrasal idioms headed by verbs participating in this alternation appears to straightforwardly contradict the expectation of the root based hypothesis. Let us start with the set of idioms in (1), each headed by the unaccusative (anticausative) alternate. The same idiomatic meaning is not available for the transitive alternate.

I. Unaccusative idioms unavailable for the transitive alternate

For the pair *yaca* 'go out' – *hoci* 'take out':

(1) a. *yaca mi-gidro*
went from-fence-his
'went overboard, went out of one's way'

b. *hoci* *et* x *mi-gidro*[2] nonexisting

[1] As is well-known, verb phrase idioms may exhibit limitations with regard to certain aspectual choices (e.g. no progressive aspect possible for *kick the bucket*). However the observed restrictions demonstrably follow from the semantic incompatibility between a given choice of Aspect and the aspectual type of the verb of the idiom (for discussion, see e.g. McGinnis 2002).

[2] The transitive alternate also has an idiomatic meaning, but different from that of the unaccusative version. It can be roughly translated as "make someone excited" and sometimes "drive someone mad".

take out ACC x from-fence-his

(2) a. *yaca le*-x *me-ha-af*
went out to-x from-the-nose
'got tired of'

b. *hoci le*-x *me-ha-af* nonexisting
took-out to+x from-the-nose

For the pair *nafal* 'fall.UNACC' – *hipil* 'fall. TRANS ':

(3) a. *nafal al oznayim arelot*
fell on ears not circumcised
'fell on deaf ears'

b. *hipil et* x *al oznayim arelot* nonexisting
fall-trans. ACC x on ears not circumcised

For the pair *gamar* 'end.UNACC' – *nigmar* 'end. TRANS ':

(4) a. *nigmar be-kol anot xaluša*
ended in-voice weak
'go out like a lamb / not with a bang but a whimper'

b. *gamar et* x *be-kol anot xaluša* nonexisting
ended.TRANS ACC x in-a weak voice

Why would the transitive alternate not exhibit the same idiomatic meaning in these cases? Under the root based lexicon hypothesis, which derives transitive structures in the syntax, it is far from obvious. Could the unavailability of the transitive version for these unaccusative idioms be due to the fact that the addition of the external argument – or the functional voice (little *v*) head commonly claimed to introduce it – somehow blocks the idiomatic meaning of the 'root+VP internal material' unit? That this could not be the case is shown by examples where the unaccusative and its transitive alternate do share the same idiomatic interpretation.

II. Unaccusative and transitive shared idioms

For the pair *yaca* 'go out' – *hoci* 'take out'

(5) a. *yaca me-ha-kelim*
went out from-the-dishes
'got very angry, got furious'

b. *hoci et* x *me-ha-kelim*
take out ACC x from-the-dishes
'made x mad, drove x crazy, made x's blood boil'

In a Google search for the transitive version there were zero results with the idiomatic meaning of the intransitive version kept.

For the pair *nafal* 'fall.UNACC' – *hipil* 'fall.TRANS'

(6) a. *nafal ba-pax*
fell in-the-bin
'x was tricked'

b. *hipil et* x *ba-pax*
fell. TRANS ACC x in+the-bin
'tricked x'

For the pair *šav* 'return. UNACC' – *hešiv* 'return.TRANS'

(7) a. *šav le-eytan-o*
returns to-strength-his
'x recuperated

b. *hešiv et* x *le-eytan-o*
returned.TRANS ACC x to-strength-his
'recuperated x'

For the pair *hiš*xir 'blacken.UNACC' – *hišxir* 'blacken.TRANS' [3]

(8) a. *pan-av hišxiru*
face-his blacken
'his reputation got ruined'

b. *hišxir et pan-av*
blacken ACC face-his
'ruined y's reputation'

As seen above, "blocking" does not hold systematically, and retaining such an account would mean having to specify whether the transitive alternate shares or fails to share the idiomatic meaning not just for each individual root, but for each specific idiom. This is shown by the contrasting behavior of idioms that are headed by the same root, as exemplified by the roots y.c.a and *n.p.l*, for instance, which appear in unique unaccusatuve idioms (1-2) and (3) respectively as well as in shared ones (5) and (6) respectively.

Even more troublesome for the root based lexicon hypothesis is the existence of the third possible type: transitive idioms not available for their unaccusative alternate, as exemplified in (9)-(12). These idioms are headed by a transitive verb which has an

[3] The unaccusative idiom (8a) has a fixed subject. This may seem to conflict with our decision not to take into account idioms with a fixed subject in order to remove any chance of having some clausal idioms among our data. Observe, however, that in the case of (8a), the suspicion of being clausal does not arise. The attested transitive alternate (8b) is limited to the VP internal domain, directly establishing that the pair constitutes a phrasal idiom. The same is true for the (nonexistent) unaccusative idioms (11b) and (12b) below. Unaccusative idioms with a fixed subject often exhibit a verb subject order. Nonexisting idioms, of course, occur in neither order. To simplify presentation, however, we give them in subject verb order only.

unaccusative alternate, yet this unaccusative form fails to share the idiomatic meaning manifested by the 'root+VP internal material' of the transitive version.

III. Transitive idioms unavailable for the unaccusative alternate

For the pair *sovev* 'turn.TRANS' – *histovev* 'turn.UNACC'**:**

(9) a. *sovev et* x *be-kaxaš*
turned ACC x in-lie
'cheated x'

b. *histovev be-kaxaš* nonexisting
turned.UNACC in-lie

For the pair *hidbik* 'fall.TRANS' – *nidbak* 'glue.UNACC'

(10)a. *hidbik et* x *la-kise*
glued acc x to+the chair
'fascinated x'

nidbak la-kise[4] nonexisting
got+glued to+the-chair

For the pair *he'erix* 'lengthen.TRANS' – *arax* 'lengthen.UNACC'

(11) a. *he'erix yamim*
lengthened days
'lived long'

b. *yam-av arxu* nonexisting
days-his lengthened

For the pair *gamar* 'finish**.**TRANS' – *nigmar* 'end**.**UNACC'

(12) a. *gamar omer*
finished utterance
'made up his mind, reached a decision'

b. *omer nigmar* nonexisting
utterance ended.UNACC

Here even an ad hoc blocking stipulation would be of no use. How could the unit 'root + VP internal material' have an idiomatic meaning that is possible for the transitive verb and unavailable for its unaccusative counterpart? Note that the external argument itself is not part of the idiomatic meaning. How can its presence nonetheless be necessary for obtaining this meaning?

[4] The unaccusative form does bear the idiomatic meaning of the transitive. The form is homophonous with the reflexive verb, which is associated with an idiomatic meaning, but a different one: 'held on to his position'.

In sum, on a root based theory, one would need to make reference to the presence or type (feature-content) of particular voice heads as part of the specification of a root's idiomatic meaning. Moreover, it would have to explain why voice heads but not other functional heads can be referred to in the listing of verb phrase idioms.

Could we attribute this discrepancy to the hierarchical structural superiority of functional heads (such as Tense) in comparison to voice heads? If this were so, one would expect all voice heads to be able to affect idiomatic meaning this way. Thus, verb phrase idioms headed for instance by a passive form would be expected to exist without the active counterpart with the same idiomatic interpretation. Yet it is well known that passive verb idioms do not exist without a corresponding active counterpart (see e.g. Chomsky 1981, Marantz 1997) unlike unaccusative and transitive verbs. This conclusion was confirmed for Hebrew by the preliminary survey we conducted. This systematic difference between verbal voice alternations with regard to the distribution of idioms, if empirically solid, is of obvious theoretical significance and calls for further investigation.[5]

In order to be able to draw reliable, firmly-grounded conclusions from the intriguing pattern of distribution of idioms, the above preliminary observations need to be substantiated by more systematic testing, meeting criteria of statistical significance. Accordingly, we have conducted a corpus-based quantitative study to test idiom distribution across different verbal diatheses. We turn to the presentation of this study in the following section.

4. Idiom Distribution Study

4.1 Methods

In order to systematically test our initial evaluations outlined above, we collected a random sample of sixty predicates of various diatheses (voices), and examined their distribution in phrasal idioms. Our corpora included seven Hebrew idiom dictionaries: Avneyon (2002), Cohen (1999), Dayan (2004), Fruchtman et al. (2001), Levanon (1981), Rosental (2005), Sévenier-Gabriel (2004). In addition, we conducted online searches and consulted native speakers' judgments.

We have counted the distribution of *unique idioms*. We use the term *unique idiom* to refer to an idiom whose matrix predicate has a transitive alternate (in the vocabulary of the language) that does not share the same idiomatic meaning. As for transitive verbs, idioms involving them are referred to as *unique* if they are unavailable for the corresponding unaccusative verb. As will be clear below, additional cross-checking has been done to uncover possible sharing of idiomatic meaning between other diatheses.

Idioms were taken to be nonexisting in three different situations. (i) The string is grammatical and nonanomalous, but has only the literal, non-idiomatic, reading. For example, Hebrew has the idiom *macuc me-ha-ecba* literally 'sucked.ADJ from-the-finger', which means 'invented'. The corresponding verbal passive sentence *nimcac*

[5] It is worth noting here that the distinction mentioned in section 2 between compositional versus non-compositional types of idioms (drawn by Nunberg, Sag and Wasow 1994) is orthogonal to the differences in idiom distribution observed above. Unique unaccusative (1)-(4), unique transitive (9)-12), as well as shared unaccusative-transitive (5)-(8) idioms are all attested both for compositional and for non-compositional idioms (see Appendix). In other words, the observed differences in idiom distribution among various diatheses arise independently of the matter of compositionality.

me-ha-ecba has only the literal, nonidiomatic meaning 'was sucked form the finger' (say, referring to some poison). (ii) The string is grammatical and nonanomalous, and the idiomatic meaning can be readily understood, but the string is never used that way. This happens only with idioms that are compositional in the sense of Nunberg, Sag & Wasow 1994 (see section 2). For example, consider the idiom *hevi to'elet*, literally 'brought benefit', namely, 'was useful'. Its unaccusative counterpart *toe'elet ba'a* 'benefit came' can be understood, but sounds weird and is not detected in online searches. Note that a single online occurrence is not taken to show that the idiom exists (nor do isolated instances), as it can be a personal borrowing, novel, inventive use, or distortion. (iii) The string is ungrammatical and/or anomalous. For example, consider the idiom *ganuv al* x, literally 'stolen on x', that is, 'loves x'. Its transitive counterpart *ganav al* x 'stole on x' does not only lack the idiomatic meaning but is actually ungrammatical as the verb does not license the preposition *al* 'on'.

We have looked at the existence versus non-existence of unique idioms for the following three verbal voices: unaccusatives, transitives, and verbal passives, and in addition, adjectival passives. We have sampled the first sixty items in an alphabetical verb dictionary (Stern 1994). There is no reason to assume that there is a correlation between the alphabetical position of a verb and its behavior with regard to participation in idioms. Predicates (i.e., voices/diatheses) that do not appear as entries in dictionaries were formed based on their transitive alternates, which were sampled form the verb dictionary. For each selected item, it was then checked whether or not it participates in a unique idiom, or in more than one. This was done by consulting the seven idiom dictionaries, and native speakers' judgments, complemented by online searches. We counted the number of predicates of each type giving rise to unique idioms.

Predicates were classified as unaccusatives based on converging results of three different diagnostics: (i) licensing of verb subject order, with no sentence initial trigger typical of stylistic inversion (which is possible in Hebrew with any verb type)[6]; (ii) licensing of possessive datives (a diagnostic originally suggested by Borer and Grodzinsky 1986);[7] (iii) existence of a transitive alternate whose external role is a Cause role (indifferent with regard to the mental state of the argument) (Reinhart 2002).

4.2 Results

Table 1 summarizes our findings. Each cell indicates the number of predicates of the relevant type involved in the formation of unique idioms. As mentioned, in all categories sixty predicates were sampled.

Table 1: Unique Idioms

[6] By Verb Subject order we mean strict VS with no material intervening between the verb and its subject, as such intervention can in certain cases license "inversion" also with unergatives. Further, it is important to note that the sole counterexample to the generalization that strict VS order is impossible with unergatives is the verb *tilpen* (alisas *tilfen*), which to some extent licenses VS (see Shlonsky 1987). This, however, seems to be a special use of the verb, as suggested by the fact that in this environment it does not allow complements; hence the marginality of *tifen avixa le-dan* ('called your father to Dan').

[7] Modification by possessive datives is limited to verbs whose subject is an internal argument, in case the subject is an alienable noun and the possessive dative a lexical noun phrase (not a personal pronoun). Inalienable subject license possessive datives with unergatives, too.

Verbal passives	Unaccusatives	Transitives	Adjectival passives
0	21	23	13

The number of phrasal idioms headed by a verbal passive (0) is significantly different than those headed by an unaccusative ($\chi^2 = 23.088$, $p < .0001$), a transitive ($\chi^2 = 26.033$, $p < .0001$), as well as an adjectival passive ($\chi^2 = 12.423$, $p = .0004$). The difference between the number of idioms headed by unaccusatives, transitives, and adjectival passives is insignificant ($\chi^2(2) = 4.313$, $p = .116$).

The next section puts forth our hypothesis with regard to the storage of idioms, shows how it accounts for the above results, and discusses the implications of our findings with regard to the organization of the lexicon.

5. The Organization of the Lexicon and the Storage Technique

5.1. The Head Based Storage Hypothesis

Why can unaccusative and transitive verbs as well as adjectival passives give rise to unique idioms, but passive verbs cannot? We believe that the reason for that is straightforward. We put forth the hypothesis that phrasal idioms are listed as subentries of their matrix predicate.[8] Such listing is possible only in a word based lexicon, which allows storage of actual verbal diatheses, that is, of actual words, meant in the abstract sense (not a phonological word). We then argue that there are independent reasons to believe that unaccusative and transitive verbs as well as adjectival (stative) passives are entries in the mental lexicon, while passive verbs are not. The former can head unique phrasal idioms because they are lexical entries, but the latter cannot as they are not present in the lexicon.

As will become clear below, we believe on independent grounds that unaccusatives and adjectival (stative) passives are formed in the mental lexicon by universal operations. Following early proposals (e.g., Aronoff 1976, Jackendoff 1975), we take that to mean that they are listed lexical entries, rejecting the option that they are formed anew upon each use of the predicate, for parsimony among other reasons. Crucially, our present findings reinforce this view, as they provide autonomous evidence that these predicates must be stored. The lexical component should somehow specify the links between inputs and outputs (links labeled by Aronoff (1976) Redundancy Rules), but this is not directly relevant for our purposes.[9]

Our storage hypothesis then can be stated as follows.

(13)The Head Based Storage Hypothesis

Verb phrase idioms, whether compositional or not, are stored as subentries of their matrix predicate, the lexical verb.

[8] In the same vein, noun phrase idioms are stored as subentries of their matrix head, the noun. The Head Base Storage Hypothesis has often been implicitly assumed in the generative literature, and is also reflected by the organization of work by lexicographers. Emonds (2006) explicitly suggests that phrasal idioms are specified in the entries of *their lexical heads*.

[9] Note incidentally that despite the listing of lexical outputs, lexical operations ought to be operative all along from the acquisition stage to the steady state as shown, for instance, by speakers' ability to activate them in the production of innovations.

5.2 Discussion of results

Let us first examine the case of verbal passives in light of the Head Based Storage Hypothesis. Recent studies have specifically argued that passive verbs are not listed in the lexicon. Independently of one's conception of the lexicon, it has been repeatedly argued that passivization does not involve any lexical procedure. If this is correct, then in the formation of both active and passive sentences, the same lexical item is inserted into the syntax. Further, given the choice of functional head or other device (depending on one's theory), the external θ-role is assigned either to a null (or affixal) category in the syntax (Baker, Johnson and Roberts 1989, Collins 2005) or to a variable in the semantic representation (Chierchia 2004, Reinhart 2002, Horvath and Siloni 2008a), resulting in a passive sentence. For our purposes here, it is irrelevant what the precise derivation of passives is. It is however crucial that passive verbs are not entries in the mental lexicon. Given the Head Based Storage Hypothesis, this immediately accounts for the lack of unique verb phrase idioms whose matrix predicate is a passive verb: since passive verbs are not listed, an idiomatic meaning specific to them cannot be stored, and consequently they cannot head unique idioms. We do find passive phrasal idioms if the corresponding transitive (active) shares the idiomatic meaning. This is expected: since the transitive is listed, an idiom can be stored as its subentry.[10]

Why can unaccusative verbs head unique idioms? Views regarding unaccusative verbs diverge. According to numerous studies, however, they are lexical entries: some studies claim that they are underived (Kratzer 1996, 2000), others argue that they are derived from their transitive alternate by an operation of decausativization, which reduces the external (Cause) role of the corresponding transitive entry in the lexicon, thus forming a new, unaccusative entry (Levin and Rappaport 1995, Reinhart 2002, Reinhart and Siloni 2005, Horvath and Siloni 2008b). As both views treat unaccusatives as lexical entries, they predict that they ought to be able to head unique idioms, as is indeed the case.

The next finding to be discussed is the existence of unique transitive idioms, that is, idioms headed by transitive verbs whose unaccusative counterparts do not share the same idiomatic meaning. Given our head based storage hypothesis, this indicates that transitives must be listed in the mental lexicon. On the decausativization approach to unaccusatives, transitives indeed are stored in the lexicon since they feed a lexical operation (of decausativization). In contrast, if unaccusatives, and more generally, verbs and their internal arguments, are listed but not their transitive counterparts, which are derived by the addition of the corresponding voice head in the syntax (Kratzer 1996, 2000), the fact that transitives have unique idioms is unexpected.

[10] As is well known there are transitive (active) idioms that have no verbal passive counterpart. This is fully consistent with our theory, given that it is the transitive (active) verb that is listed in the lexicon. The unavailability of a verbal passive alternate with the same idiomatic meaning depends on whether or not the transitive verb phrase idiom is able to undergo verbal passivization. In fact, it has been independently argued in the literature that failure to passivize is a systematic property of *non-compositional* verb phrase idioms, i.e., idioms such as *kick the bucket*, *saw logs* (see e.g. Nunberg, Sag and Wasow 1994). Ruwet (1991) discusses further semantic properties, such as "referential autonomy" required of subjects that may have an effect on the passivization of idioms. The same seems to hold for Hebrew as well; thus, *hexzir ciyud* 'return.TRANS equipment', namely, 'died' cannot passivize. In Hebrew, in addition, certain verbal passive forms fall outside of current usage, e.g., *subav* 'turned'. This may be the reason why *sovev be-kaxaš* (9a) cannot passivize.

Recall that sharing of idiomatic meaning between unaccusatives and their transitive alternates is also attested. Our preliminary survey (see section 3) has revealed that certain idioms are common to both diatheses. The existence of such idioms shows that it cannot be the case that the addition of the voice head responsible for the external argument (forming the active voice) blocks the accessibility of the idiomatic meaning. We validated the findings of our preliminary survey on the basis of the 60 pairs of transitive and unaccusative verbs that we have sampled for the search of unique idioms. For each pair we checked whether or not its members shared some idiomatic meaning(s). Out of 60 pairs, 17 pairs exhibits idiomatic meaning common to both members.

Table 2: Transitive-Unaccusative Pairs: Shared Idioms

Transitive-Unaccusative
17

It is worth noting that the difference between the number of unique idioms and shared idioms is insignificant, both in the case of transitivies ($\chi^2 = 1.35$, $p = .333$) and in the case of unaccusatives ($\chi^2 = .347$, $p = .556$). A word based lexicon, where both the transitive and unaccusative alternates are listed can store both unique and nonunique idioms, and a priori does not predict a significant difference in their occurrence.

Constructionist root based theories take both unaccusatives and transitives to be formed in the syntax by the merger of the appropriate functional heads (Borer 2005, Ramchand 2006). On such theories, roots must be able to list specific idiomatic meaning as depending on the particular voice head they will merge with in the syntax. But if such listing is allowed in a root based lexicon, why is it impossible to list the idiomatic meaning the root would have in the syntactic context of the passive voice head? Setting apart the passive voice head this way without independent evidence seems completely ad hoc. Moreover, recall that adjectival (stative) passives do form unique idioms. This raises the additional query as to why verbal and adjectival passives should differ this way if both are represented in the lexicon by the root.[11]

On the Head Based Storage Hypothesis, it is not at all surprising that adjectival, but not verbal, passives give rise to unique idioms, given that numerous studies argue that the former are formed in the lexical component (Wasow 1977, Dubinsky and Simango 1996, Horvath and Siloni 2008a). If adjectival passives, in contrast with their verbal counterparts, are lexical entries, they ought to be able to head unique idioms, as is indeed the case.[12]

6. Conclusions

[11] None of the unique idioms headed by an adjectival passive was available for the corresponding verbal passive. This is, of course, expected as verbal passives can head idioms only if the idiomatic meaning is available for the transitive alternate.

[12] Our finding that *adjectival* passives must be listed in the lexicon provides evidence also in support of the assumption that category membership is specified in the lexicon. This in turn implies that other cross-categorial alternations, such as verb – derived nominal pairs, may exhibit unique idioms as well. This latter consequence is investigated in work in progress.

Under the Head Based Storage Hypothesis, the results reported in table (1) and (2) follow straightforwardly. More importantly, our findings have several significant consequences. They provide robust evidence in favor of a word based approach to the internal organization of the lexicon. More specifically, they constitute a novel type of evidence in favor of the various studies claiming that unaccusatives, transitives, and adjectival passives are lexical entries, whereas verbal passive are not. Thus they represent a serious challenge (a) to strictly lexicalist approaches (HSPG, LFG) arguing that even verbal passives are the result of a lexical rule (e.g., Bresnan 1982, Pollard and Sag 1994 and Van Valin 1993), and (b) to approaches uniformly deriving the various diatheses in the syntax (Borer 2005, Ramchand 2006, Pylkkänen (2002), Alexiadou et al. 2004). In light of that, the mental lexicon cannot be reduced to noncomputational lists of items. It must be an active component, where arity operations can apply. Finally, our findings reinforce the view that lexical outputs are listed and not formed repeatedly. That is so because there is a striking correlation between the diatheses claimed on independent grounds to be formed in the lexicon and those that give rise to unique idioms and must therefore be stored.

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Appendix

The appendix includes the samples of predicates used for the study. Each category of predicates is followed by examples of idioms of the relevant sort. The predicates heading these idioms are marked in boldface in the preceding list of predicates. The list of idioms does not include all the idioms collected for each predicate but just one example. Usually, there are several to numerous occurrences of the same predicate in various idioms. In the list of idioms the gloss of existing idioms appears in parentheses, a nonexisting idiom and its gloss appear between square brackets. The citation form of Hebrew verbs is conventionally the past tense form; the English glosses are presented in the past tense as well.

1. Unaccusative verbs (with a transitive counterpart)

hit'azen 'became balanced'; *hit'amet* 'was verified'; *hit'afšer* 'became possible'; ***ba*** 'came'; *hitbala* 'became worn out'; *hitbarex* 'was blessed with'; *nig'al* 'was freed'; *hitgabeš* 'became consolidated'; ***hitgaber*** **'overcame, became stronger'**; *nigmar* 'ended, was over'**;** *nidlak* 'got ignited, got lit'; *hit'arex* 'became longer'; *hivri* 'became healthy'; *nidbak* 'was stuck, was glued'; ***gadal*** **'grew up, increased'**; *hitgameš* 'got more flexible'; *hidarder* 'roll down'; ***nolad*** **'was born'**; *nosaf* 'was added to'; ***yaca*** **'went outside, exited'**; ***yarad*** **'descended, went down'**; *zinek* 'pounce, leap forth'; *xadar* 'penetrate'; ***xazar*** **'returned'**; *hitxil* 'started'; *hexmir* 'worsened'; *nexnak* 'was strangled'; *hexrif* 'worsened'; *hitxareš;* 'became deaf'; *hitaltel* 'wandered, was tossed from side to side'; *hutav* 'got improved'; ***nixnas*** **'enter'**; *huxpal* 'was doubled'; ***nixšal*** **'failed'**; *hitmotet* 'collapsed'; ***met*** **'died'**; ***na*** **'moved'**; ***histovev*** **'turned around'**; ***avar*** **'passed'**; ***amad*** **'stood'**; *ne'eram* 'piled up'; ***nafal*** **'fell'**; ***hithapex*** **'turned over'**; *nifsak* 'stopped'; *nifrad* 'separated from'; *hifšir* 'melted'; ***nical*** **'got saved'**; *hitkaša* 'harden'; *hikšiax* 'hardened'; ***neherag*** **'got killed'**; *hitraxek* 'drew away from'; *hura* 'worsened'; ***niš'ar*** **'stayed, remained'**; *hišxir* 'blackened' ***šav*** **'returned'**; ***hitpocec*** **'exploded';**

hištabeš 'got disrupted'; *hištaxrer* 'was released'; *hištalev* 'fit together'; *hištaper* 'improved'

2. Unaccusative verbs: unique idioms

ba al onšo (came on his+punishement); 'was punished, got his just deserts' [*hevi et* x *al onšo* 'brought ACC x on his+punishment']; *hitgaber ka-'ari* (became stronger like-lion) 'became stronger in order to perform a task' [*higbir et* x *ka-ari* 'strengthened ACC x like-lion]; *gadal pere* (grew.UNACC wild) 'grew wild' [*gidel et* x *pere* 'bring up ACC x wild']; *nolad me-xadaš* (born from-new) "was reborn, became a new person' [*holid et* x *me-xadaš* ' begot ACC x from-new]; *yaca le*-x *mi-kol ha-xorim* (went out to-x from-all the-holes) 'had enough, had it up to here' [*hoci* ACC y *le*-x *mi-kol ha-xorim* 'take-out ACC y to-x from-all the-holes']; *yarad le-omek ha-'inyan* (went down to-depth the-matter) 'got to the bottom of matter' [*horid et* x *le-omek ha-'inyan* 'lowered ACC x to-depth the-matter']; *xazar ki-l'umat še-ba* (returned just as that-came) 'returned empty-handed' [*hexzir et* x *ki-l'umat še-ba* 'returned.TRANS ACC x just as that-came']; *nixnas be-ovi ha-kora* (entered in-thickness the-beam) 'studied something well, delved into something' [*hixnis et* x *be-ovi ha-kora* ' inserted ACC x in-thickness the-beam]; *nixšal bi-lšono* (failed in-his+tongue) 'said the wrong thing' [*hixšil et* x *bi-lšono* 'failed.TRANS ACC x in-his+tongue']; *met al x* (dies on x) 'is crazy about x' [*hemit et* y *al* x 'killed ACC y on x']; *na va-nad* (moves and-wanders) 'a vagabond.ADJ' [*heni'a ve-henid* 'moved.TRANS and shook.TRANS]; *histovev sviv ha-zanav šel acmo* (turned around the-tail of himself) 'became entangled, encounter difficulties with regard to some issue' [*sovev et* x *sviv ha-zanav šel acmo* 'turned.TRANS ACC x around the-tail of himself]; *avar le-seder ha-yom* (passed to-the agenda) 'returned to routine, ignored' [*he'evir et* x *le-seder ha-yom* 'pass.TRANS ACC x to-the agenda]; *'amad al ha-mekax* (stood on the-purchase) 'bargained, negotiated a price' [*he'emid et* x *al ha-mekax* 'placed ACC x on the-purchase]; *nafal beyn ha-kis'ot* (fell between the-chairs) 'was ignored, abandoned by those who had to take care of him' [*hipil et* x *beyn ha-kis'ot* 'dropped ACC x between the-chairs]; *hithapex be-kivr-o* (turned over in-grave-his) 'turned over in his grave' [*hafax et* x *be-kivr-o* 'turned TRANS ACC x in- grave-his']; *nical be-or šin-av* (was saved in-skin of teeth-his) 'had a close call, had a close shave' [*hicil et* x *be-or šin-av* 'saved ACC x in-skin of teeth-his']; *neherag al paxot mi-šve pruta* (was+killed on less than-worth cent) 'miser' [*harag et* x *al paxot mi-šve pruta* 'killed ACC x on less than-worth cent]; *niš'ar be-eyn-o* (stayed in-eye-its) 'remained as it was' [*hiš'ir et* x *be-eyn-o* 'left ACC x in-eye-its']; *šav al akev-av* (returned on heels-his) 'turned back, retraced his steps' [*hešiv et* x *al akev-av* 'returned .TRANS ACC x on heels-his']; *hitpocec le*-x *ba-panim* (exploded to-x in+the-face) 'x's hopes or plans were shattered' [*pocec le-x et y ba-panim* blew up to-x ACC y in+the-face].

3. Transitive verbs (with an unaccusative counterpart)

'izen 'balanced'; *'imet* 'verified'; *'ifšer* 'made possible'; ***hevi*** **'brought'; *bila*** **'wore out'**; *berex* 'blessed'; *ga'al* 'freed'; *gibeš* 'consolidated'; *higbir* 'strengthened'; ***gamar*** **'finished'**; *hidlik* 'lit'; ***he'erix*** **'lengthened'**; *hivri* 'made healthy'; ***hidbik*** **'glued'; *higdil*** **'enlarged'**; *higmiš* 'moderated'; *dirder* 'caused to roll down a slope'; *holid* 'fathered'; ***hosif*** **'added'**; ***hoci*** **'took out'**; ***horid*** **'lowered'**; *hiznik* 'advanced'; *hexdir* 'inserted'; ***hexzir*** **'returned'**; *hitxil* 'began'; *hexmir* 'worsened'; *xanak* 'suffocated';

hexrif 'worsened'; *hexriš* 'silenced'; *tiltel* 'rocked, tossed'; ***heitiv* 'improved'**; ***hixnis* 'inserted'**; *hixpil* 'doubled, multiplied'; *hixšil* 'caused to fail'; *motet* 'destroyed, collapsed'; *hemit* 'killed'; *heni'a* 'caused to move'; ***sovev* 'turned'; *he'evir* 'removed, transferred'; *he'emid* 'placed, positioned';** *he'erim* 'piled up'**; *hipil* 'dropped'; *hafax* 'turned over';** *hifsik* 'stopped'; *hifrid* 'separated'; *hifšir* 'melted'; ***hicil* 'rescued, saved'**; ***hikša* 'hardened'**; ***hikšiax* 'hardened'**; ***harag* 'killed'**; *hirxik* 'distanced, moved away'; *here'a* 'made worse'; *hiš'ir* 'left, kept'; *hišxir* 'blackened'; ***hešiv* 'returned'**; ***pocec* 'destroyed, blew up'**; *šibeš* 'disrupted'; ***šixrer* 'freed'**; *šilev* 'integrated'; *šiper* 'improved'.

4. Transitive verbs: unique idioms

hevi le- x *et ha-se'if* (brought to- x .ACC clause) 'annoyed, upset' [*ha-se'if ba le-*x 'the clause came to x]; *tevale ve-texadeš* (wear out and-renew) 'wear it in good health, wish you well to wear it' [*hitbala ve-hitxadeš* 'wore out.UNACC and-was+renewed]; *gamar omer* (finished utterance) 'made up his mind, reached a decision' [*omer nigmar* 'utterance finished.UNACC']; *he'erix yamim* (lengthened days) 'lived long' [*yam-av arxu* 'days-his lengthened.UNACC']; *hidbik et* x *la-kise* (glued ACC x to+the chair "fascinated x' [*nidbak la-kise* 'got+glued to+the-chair' (see note 4)]; *higdil roš* (enlarged head) "took initiative and responsibilities more than expected or required' [*rošo gadal* his+head enlarged.UNACC']; *hosif šemen la-medura* (added oil to+the-fire) 'added fuel to the fire, aggravated the situation' [*šemen nosaf/hivasef la-medura* 'oil got added to+the-fire']; *hoci bišvil* x *et ha-armonim min ha-eš* (took-out for x ACC the-chestnuts from the-fire 'did a difficult or unpleasant job for x' [*ha-armonim yac'u le-* x *min ha-eš* 'the-chestnuts went-out to x from the-fire']; *horid bifney* x *et ha-kova* (lower in the presence of x ACC the-hat) 'took his hat off to x' [*ha-kova yarad bifney* x 'the-hat lowered.UNACC in the presence of x']; *hexzir atara le-yošna* (return crown to-oldness) 'restored something to its previous good quality or condition' [*ha-atara xazra le-yošna* 'the-crown returned.UNACC to-oldness']; *heitiv et libo* (improved ACC heart-his) 'enjoyed himself' [*libo hutav* 'heart-his improved]; *hixnis le-*x *milim la-pe* (inserted to-x words to+the-mouth) 'put words in x's mouth' [*nixnesu le-*x *milim la-pe* 'entered to-x words to+the-mouth']; *sovev et* x *be-kaxaš* (turned ACC x in-lie) 'cheated x' [*histovev be-kaxaš* 'turned.UNACC in-lie']; *he'evir et* x *al da'at-o* (transferred ACC x on mind-his) 'drive x mad' [*avar al da'a-to* 'passed. UNACC on mind-his']; *he'emid panim* (place face) 'pretend' [*pan-av amdu* 'face-his stood']; *hipil xitit-o al* x (drop fear-his on x) "frighten' [*xitit-o nafla al* x 'fear-his fell on x']; *hafax šulxanot* (turned over tables) 'threatened violence' [*šulxanot hithapxu* 'tables turned-over.UNACC']; *hicil et ha-macav* (saved ACC the-situation) 'salvaged a situation, saved the day' [*ha-macav nical* 'the-situation was+saved']; *hikša et orp-o* (hardened ACC nape-his) 'became stubborn' [*orp-o hitkaša* 'nape-his hardened.UNACC']; *hikšiax et lib-o* (hardened ACC heart-his) 'became stubborn' [*lib-o hitkašeax* 'heart-his hardened.UNACC']; *harag zman* (killed time) 'killed time' [*ha-zman neherag* 'the-time was+killed']; *hešiv le-*x *ki-gmul-o* (returned to+x as-reward-his 'repayed x in kind, gave x what he deserved' [*šav le-*x *ki-gmul-o* ' returned.UNACC to-x as-reward-his']; *pocec et* x *be-makot* (blew-up ACC x in-blows) 'beat the hell out of x' [*hitpocec be-makot* 'blew-up.UNACC in-blows']; *šixrer kitor* (released steam) 'let out steam, said what he felt' [*kitor hištaxrer* 'steam released.UNACC].

5. Transitive and Unaccusative shared idioms (list of predicates 1 and 3)

ba la-olam (came to+the-world) 'was born', *hevi et* x *la-olam* (brought ACC x to+the-world) 'delievered x'; *hidlik le-*x *nura aduma* (lighted to-x bulb red) 'was a warning sign for x', *nidleka le-*x *nura aduma* (got-lit to-x bulb red) 'x sensed a warning sign'; *hoci et* x *me-ha-kelim* (take out ACC x from-the-dishes) 'made x mad, drove x crazy', *yaca me-ha-kelim* (went out from-the-dishes) 'got very angry, got furious'; *horid et* x *le-timyon* (lowered ACC x to-treasure) 'threw x down the drain', *yarad le-timyon* (went down to-treasure) 'down the drain'; *hexzir et* x *la-mutav* (returned ACC x to+the-better) 'made x return to the straight and narrow'; *xazar la-mutav* (returned to+the-better) 'returned to the straight and narrow'; *hitxil et x be-regel smol* (began ACC x in-foot left) 'began x poorly / with bad luck', *hitxil be-regel smol* (began in-foot left) 'began poorly / with bad luck'; *hixnis et x la-tmuna* (let+in ACC x to+the-picture) 'brought x into the picture, let x in on a matter', *nixnas la-tmuna* (entered to+the-picture) 'got into the picture, became involved in the matter'; *sovev le-x et ha-roš* (turned to-x ACC the-head) 'confused x', *histovev le-x ha-roš* (turned around to-x the-head) 'x got confused'; *he'mid et x al ta'ut-o* (stood.TRANS ACC x on mistake-his) 'showed x wrong', x *amad 'al tau'-to* (x stood on mistake-his) 'x realized he (x) had made a mistake'; *hipil et* x *ba-pax* (fell.TRANS ACC x in-the-bin) 'tricked x', *nafal ba-pax* (fell in-the-bin) 'x was tricked'; *hafax et ha-ke'ara 'al pih-a* (turned ACC the-bowl on face-its) 'x changed the situation completely', *ha-ke'ara hithapxa al pih-a* (the-bowl turned on face-its) 'the situation has completely changed'; *hifšir et ha-kerax* (melt.TRANS ACC the-ice) 'x broke the ice', *ha-kerax hifšir* (the-ice melted) 'the ice broke'; hiš*'ir et-x ba-avir* (left ACC x in-the-air) 'left x high and dry', *niš'ar ba-avir* (stayed in-the-air) 'x was left high and dry'; *hišxir et pan-av* (blacken ACC face-his) ' ruined x's reputation', *panav hišxiru* (face-his blackened) 'his reputation got ruined'; *hišiv et* x *le-eytan-o* (returned.TRANS ACC x to-strength-his) 'recuperated x', *šav le-eytan-o* (returns to-strength-his) 'x recuperated'; *pocec le-x et ha-rosh* (exploded.TRANS to-x ACC the-head) 'annoyed/bothered x)'; *hitpocec le-x ha-rosh* (exploded to-x the-head) 'x is annoyed/bothered'

6. Adjectival Passives

avud 'lost'; *ahuv* 'loved'; *ahud* 'admired'; *me'uvrar* 'ventilated'; *me'uzan* 'balanced'; ***axuz* 'held'**; *me'uyaš* 'manned'; *me'uxzav* 'disappointed'; **axul 'eaten'**; *me'uxlas* 'populated'; *me'ulac* 'forced'; *me'ultar* 'improvised'; *me'uman* 'trained'; *me'umac* 'strenuous'; *me'umat* 'verified'; *asur* 'forbidden'; *afuf* 'immersed'; *me'upar* 'made-up (cosmetics)'; *me'urgan* 'organized'; ***aruz* 'packed'**; *me'ušpaz* 'hospitalized'; *me'ušar* 'confirmed'; *mevo'ar* 'annotated'; *baduy* 'fabricated'; ***baduk* 'checked'**; *baluy* 'worn out'; *banuy* 'built'*; mevusas* 'established'; ***mevucar* 'fortified'**; *mevukar* 'controlled'; *megubaš* 'consolidated'; *megudal* 'grown'; *megohac* 'ironed'; *meguvan* 'varied'; *gazuz* 'cut'; ***gazur* 'cut'**; *meguyas* 'conscripted'; ***galuy* 'revealed'**; *gamur* 'finished'; ***ganuv* 'stolen';** *megune* 'disgusting'; *garus* 'ground'; *daxuy* 'rejected'; *meduka* 'depressed'; ***daluk* 'lit'**; ***dafuk* 'defective'** (lost original meaning); *medukdak* 'exact'; ***darus* 'be run over'**; *daruš* 'required'; *mu'afal* 'darkened'; *mu'arax* 'lengthened'; *muvtax* 'promised'; ***muvan* 'understood'**; *mugbar* 'increased'; *mugdal* 'enlarged'; *mugdar* 'defined'; *mudbak* 'glued'; ***davuk* 'glued'**; *mudgaš* 'emphasized'; *mudxak* 'repressed'.

7. Adjectival Passives: Unique Idioms[13]

axuz xerev (held sword) *'*warriror.ADJ' [*azax xerev'* 'held.TRANS sword']; *axul ve-šatuy* (eaten and drunk) 'ate and drank to the point of satisfaction' [*axal* ve-šatax 'ate and drank']; *aruz ve-muxan* (packed. and-prepared) 'all ready'[14] [*araz ve-hexin* 'packed. TRANS and-prepared .TRANS ']; *baduk ve-menuse* (checked and-tried) 'well-tested, effective' [*badak ve-nisa* 'checked.TRANS and-tried.TRANS']; *mevucar be-emdato* (fortified in-his+position) 'stubborn' [*bicer et x be-emdato* 'fortified.TRANS ACC x in-his+position']; *gazur al x* (cut on x) 'loves x' [*gazar* y *al x '*cut.TRANS y on x']; *galuy ve-yadua* (revealed and-known) 'well known' [*gila ve-yada et x* 'revealed.TRANS and-knew ACC x']; *ganuv al x* (stolen on x) 'loves x' [*ganav et y al x (*stole ACC y on x)]; *daluk al x* (lit on x) 'has a crush on x' [*hidlik et* y *al x* (lit ACC y on x) 'made y be interested in something']; *dafuk ba-roš* (knocked in+the-head) 'stupid' [*dafak et* x *ba-roš* 'knocked.TRANS ACC x in+the-head']; *drusa 'iš* (be run over.FEM man) 'not a virgin (about a woman)' [*'iš daras* x.FEM 'man ran over x.FEM); *muvan me-el-av* (understood from-to-x) 'self evident' [*hevinu et* x *me-'el-av* (understood.TRANS ACC x from-to-x)]; *davuk la-kise* (glued to+the-chair) 'holding on to one's position' [*hidbik et* x *la-kise* (glued. TRANS ACC x to+the-chair) 'fascinated him'].

[13] Interestingly, most of the idioms collected in this category are idioms headed by a adjectival passive in the pa'ul template. We discuss this phenomenon in work in progress.

[14] The use is not specific to luggage etc. The idiom is used with regard to things which are ready in every detail, e.g., cooked food etc.