

Unlikely Lexical Entries

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UNLIKELY LEXICAL ENTRIES
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I. Introduction

It is no great revelation that many verbs in English can be used both transitively and intransitively. Variable constituent structure abounds for most lexical items, yet for verbs, linguists have felt compelled to cite a default pattern of arguments, that is, a fixed number of grammatically interpretable arguments, and list it with the lexical entry for each verb in something called the lexicon (cf. Bresnan 1982, Hale and Keyser 1985). This paper questions the extent to which implicit yet commonly-held assumptions about the lexicon can handle variable subcategorization information for verbs when the variation is not strictly a function of the verb's inherent meaning, that is, when the variation does not warrant additional lexical entries. These assumptions spring from an idealized model of the lexicon which amounts to little more than a storage bin wherein phonological, semantic, and category information about a lexical item reside [1]. This information is to be "applied", "accessed", or "projected" from the lexicon when the lexical item is selected for participation in larger constructions. However, linguists harbor only vague or coarse-grained notions about what a particular lexical entry would really consist of. As I'll argue, this vagueness is due primarily to the fact that information usually attributed to the lexicon has a multitude of sources. The examples I'll use for this paper relate to the phenomenon of transitivity.

Transitivity informs a speaker's selection of nominals to fill out a particular two-place argument structure and their subsequent arrangement in the clause as subject or object. Elsewhere, I have argued that transitivity is a matter of how the related event is conceived by the speaker (cf. Rice 1987). To that end, I have demonstrated that an argument does not always bear a set grammatical relation or semantic role to a predicate. Here, I present related data--specifically, verbs that can behave both transitively and intransitively--and argue that predicate-argument structure, that is, the actual number of overt arguments, is equally fluid and based both on construal factors and on a lexical item's value relative to a larger semantic paradigm. These differential usages do not arise from separate lexical entries for polysemous verbs. I will suggest, instead, that elements in the lexicon, if there is such a separate component of grammar, form natural categories that are subject to prototype effects and that many factors other than intrinsic meaning influence lexical insertion.

The data I examine are English transitive verbs that can permit omitted objects and intransitive verbs that can take cognate objects. The behavior of these verbs under omission or when complemented by a cognate object departs from their usual usage, but yet, these extensions occur quite frequently and signal something about how an event and its subcomponents are interpreted and coded linguistically. These departures are not strictly idiosyncratic nor novel. They give rise to discernible patterns in the language that result from a lexical item's placement in a semantic hier-

archy, the overall expression's pragmatic context, the expression's ability to evoke well-known scenarios, or from the object's degree of modification. These factors are difficult to code within a two- or three-line lexical entry, yet the omission and cognate object facts I examine here are all regular processes. These data bring into focus inadequacies associated with a static and shorthand view of a lexicon containing pre-set and only partially specified lexical entries.

2. Transitive Verbs and Omitted Objects

Researchers (cf. Langendoen 1970, Bolinger 1975, and Collinge 1984) have long noted that the omission of an object in English is verb-sensitive. However, a few generalizations can be made that do not simply attribute omissibility to particular predicates. I will discuss these generalizations in turn. First of all, though, it is important to note that object omission is neither a process nor does it represent two separate versions of a verb, a transitive and an intransitive one. Rather, certain construals of transitive events are such that they focus on the active participant and leave the acted-upon participant unspecified and, most importantly, to be filled in with a default value. Omitted objects are still objects, which is to say that they are still present at some level of organization, perhaps not at a lexical or syntactic level, but certainly at a conceptual one. Most importantly, the object does not really go away when it is omitted.

Below, I examine some of the factors affecting object omissibility. There is quite a difference between each of the sentences in (1):

- (1) a. John fell.
 b. John ate.
 c. John ate a big lunch.
 d. John ate something.

A classic Phrase Structure account would lump (1a) and (1b) together as intransitive because lexically and syntactically, the verbs lack direct objects. Nevertheless, semantically, John still ate something in (1b). EAT always represents a two-participant activity, whereas FALL does not. FALL profiles the absolute downward motion of a single participant and therefore (1a) is the only sentence of the four that can be considered wholly intransitive. (1b) is much more similar to (1c-d) than it is to (1a). (1b) and (1c) do contrast in some respects as is apparent from the way they each compare to the sentence given as (1d), which is a sort of hybrid of the two. (1d) is a compromise that a speaker might use so as to avoid the default reading engendered by (1b)--that John ate a meal--while still not specifying what John ate, as is made explicit in (1c).

The notion of a default interpretation is very important to the phenomenon of object omission. What the default reading of a missing object is, how it compares semantically to other potential objects that the predicate can take, and whether it is easy or difficult to interpolate all affect the ability of an otherwise transitive verb to occur minus its object. Below, I discuss some of the factors that contribute to or hinder the determination of the unspecified object's default value.

Objects that can be omitted tend to be those whose lexical content is most probable given the meaning of the verb. Omitted objects are generally

restricted to complements with a low degree of semantic independence from the verb. There are many verbs whose omitted objects are clearly understood because they are inferred from a very narrow, if not exclusive, range of possibilities. The lexical identity of the object is easily induced. In the examples in (2-5), I give in parentheses first the standard default interpretation along with unacceptable interpretations of what has been omitted. Notice that the default interpretation is never really schematic or super-ordinate in the Roschean sense, as indicated by the NP in capital letters. Rather, the default interpretation usually elicits the verb's prototypical complement which is a basic-level NP. Subordinate-level NPs, as indicated by the underscore, are also ruled out, that is, they tend not to be what is filled in by either speech-act participant.

- (2) John smokes (cigarettes/ *Marlboros/ *a pipe/ *SMOKING MATERIALS).
 (3) John drinks (alcohol/ *gin/ *water/ *coffee/ *LIQUIDS).
 (4) When he goes to Boston, John drives (a car/ *a Toyota/ *a motorcycle/ *A VEHICLE).
 (5) Each afternoon, John reads (a book/ *Ulysses/ *the newspaper/ *PRINTED MATTER).

Clearly, an omitted object should not be read as zero. Rather, on a neutral reading, an omission activates a prototype or a particular semantic frame in which the action is prototypical.

Another area of regularity surrounding the phenomenon of object omission involves the verb's semantic neutrality. Verbs that conflate action and manner tend to resist omission while synonymous yet more neutral verbs tend to allow it. Consider the contrasting pairs in (6-11):

- (6) a. Celia ate.
 b. *Celia nibbled/ bit/ chewed/ devoured/ingested/ munched/ gobbled.
 (7) a. Walter smoked.
 b. *Walter puffed.
 (8) a. Hemingway drank.
 b. *Hemingway sipped/ guzzled/ swigged/ quaffed.
 (9) a. Mike studied all afternoon.
 b. *Mike perused/ memorized/ reviewed all afternoon.
 (10) a. Moses spoke.
 b. *Moses uttered.
 (11) a. Samuel Pepys wrote daily.
 b. *Samuel Pepys penned/ inscribed/ drafted daily.

One explanation might be that manner adds a degree of specificity to the action such that the entire event loses its basic-level status and a default interpretation becomes disfavored. Of course, some of the predicates in (6b-11b) are acceptable minus objects when occurring in nonfinite verb forms or in the imperative (e.g. "John always nibbles before dinner," "Memorizing is how she studies best," "Don't guzzle!")

Although lack of object omission may be a conventionalized fact of English for the verbs in (6b-11b), or perhaps conflation of action and manner is sufficient to warrant a particular type of activity such that the default

reading is effectively prevented, the omission behavior of other verbs may be linked to the nature of the inferred object. If the omitted object refers to some whole entity, it is more likely to be left out than if it refers to a part of some inferred entity. Compare the examples in (12) and (14) with those in (13) and (15):

- (12) a. Travis let Billy drive (the car).
 b. Travis let Billy steer (the car).
 c. Travis let Billy brake (the car).
 d. Travis let Billy accelerate (the car).
- (13) a. Travis let Billy turn *(the wheel).
 b. Travis let Billy rev *(the engine).
 c. Travis let Billy floor *(the gas pedal).
 d. Travis let Billy gun *(the motor).
- (14) a. Mark should bathe (himself).
 b. Mark should wash (himself).
 c. Mark should dress (himself).
 d. Mark should exercise (his body).
- (15) a. Mark should brush *(his teeth).
 b. Mark should comb *(his hair).
 c. Mark should shampoo *(his hair).
 d. Mark should pluck *(his eyebrows).

In these examples, although the objects are readily inferrable from the context, they differ with respect to acceptability under omission. Parts are usually smaller, more specific, more localized, and usually more definite than wholes. They also tend to be viewed as subordinate rather than basic-level NPs. There are cases which support this part-whole/overt-omitted pattern, even when the verb only admits one particular complement. The verbs in (16-21) must be accompanied by an overt object nominal despite the fact that the meaning of the verb is such that there is generally only a single possible complement that can complete the expression:

- (16) John stubbed *(his toe).
 (17) John barked *(his shin).
 (18) John crooked *(his neck).
 (19) John pursed/puckered *(his lips).
 (20) John sprained *(his wrist/his ankle).
 (21) John blew *(his nose).

In these examples, the notion of a default has no semantic utility since the sole object permitted in these expressions does not stand in opposition to a larger spectrum of possibilities. Nevertheless, there are verbs, as those in (22-25) illustrate, involving equally restricted and directly inferrable body parts, that tolerate omission:

- (22) John squinted/ blinked/ winked (his eyes).
 (23) John shrugged (his shoulders).
 (24) John waved (his hand).
 (25) John stretched/flexed (his muscles).

I believe, though, that the tendency in such cases is to disfavor omission.

Likewise, object omission is generally disfavored for the verbs in (26-30). Here, the range of possible complements is confined to a fairly limited set of semantic domains or categories that furthermore seem to lack basic-level exemplars. The permissible objects are selected from either a super- or sub-ordinate level and omissibility, as I am suggesting here, appears to affect only items from the basic level of a category.

- (26) Who unplugged *(the toaster/ the TV/ THE APPLIANCE)?
- (27) I mailed *(the letter/ the package/ the postcard).
- (28) Greg fathered *(a son/ an idea/ AN OFFSPRING/ A CONCEPT).
- (29) Bob kissed and hugged *(Betty/ SOMEONE/ SOMETHING).
- (30) The Pope visited *(Mary/ Louisville/ SOMEONE/ SOMEPLACE).

By contrast, some verbs, especially if they occur in a heavily-biased context, normally invite a default reading regardless of the category level of the covert NP. The verbs in (31-39) allow omission although a wide range of possible objects can complement them:

- (31) Hemingway ate, drank, and smoked too much.
- (32) Martha cooked and cleaned while Mary entertained.
- (33) Billy Jo washed and Bobby Jo dried.
- (34) John finally married.
- (35) Horowitz practices daily.
- (36) Scott hammers and saws like a pro.
- (37) Bill always interrupts.
- (38) He paints, she pots; he sculpts, she draws.
- (39) "Those who can, do; those who can't, teach."

Because the sentences containing objectless verbs in (31-39) readily evoke general semantic frames or scenarios, the particular object is fairly unimportant as the pragmatic focus is on the activity itself.

Not only do certain out-of-context objectless verbs tend to evoke a particular frame of reference, but conversely, a particular semantic frame tends to evoke objectless verbs. Take, for example, the context-induced sentences in (40):

- (40) a. THE TYPICAL RESTAURANT SCRIPT: The man entered, he ordered, he ate, he paid, he left.
- b. A DESCRIPTION OF THE FREEDOM-FIGHTING CONTRA REBELS: They kidnap, rape, torture, and murder.
- c. THE PLIGHT OF THE AVERAGE HOUSEWIFE: She cooks, she cleans, she dusts, she vacuums, she irons, etc.
- d. THE PLAY-BY-PLAY OF A SPORTS ANNOUNCER: Simmons intercepts, now he passes. Roberts catches and scores.

Collectively, the individual objectless clauses are fine, especially when strung together, because the identity of each of the omitted objects is easily induced from the context of the larger script or from associations engendered by other lexical items in the string.

Generally, in order to interpolate the omitted object, a particular semantic frame must be isolated by the conceptualizer. If none is, then the omission is unacceptable. The verbs in (41-48) do not allow object omis-

sion. Although they represent seemingly neutral and basic-level verbs, they each take too broad a range of possible objects. It is rather difficult, therefore, to determine exactly what was omitted since no default can be inferred.

- (41) *Someone opened/ shut/ closed/ sealed/ locked.
- (42) *He carried/ toted/ held.
- (43) *We thanked/ greeted/ introduced.
- (44) *She recognized/ acknowledged.
- (45) *They took/ gave.
- (46) *He made/ built/ fabricated/ constructed.
- (47) *I sold/ bought/ traded.
- (48) *We spent.

There seems to be, then, a happy medium for verbs that license object omission. Verbs that are very neutral but that furthermore sustain a wide variety of complements, tend always to require objects (e.g. "John loves *(lima beans/ Country and Western music).") Verbs that are neutral but whose objects are restricted to one or two possible semantic domains may generally omit them (e.g. "John bet (five dollars/ his entire pension fund).") Finally, verbs that are quite specific with regard to their complement or verbs that reveal something about the manner in which the specified activity is carried out almost always require overt objects (e.g. "John manicured *(his nails).") Thus, neither extremely schematic nor extremely specific verb-complement pairs encourage object omission.

Often, the degree of specification of a verb and its object tend to covary. If the verb is too general, so probably is the object. Under such circumstances, it would be impossible to ascertain what was missing if the object were omitted. If the verb is too specific, its object probably will be as well, to the point that it is too unique to be left out. It is the combination of a semantically basic verb and a relatively contingent object (by relatively contingent, I mean neither a wholly extrinsic or wholly intrinsic complement) that tends towards omission. In sum, omissibility has a paradigmatic character as it can be motivated for classes or strings of verbs rather than for idiosyncratic lexical items.

3. Intransitive Verbs and Cognate Objects

Likewise, it is difficult to confine the occurrence of cognate objects in English to a regular small subset of verbs as is the case in other languages. When an object is lexically cognate with its verb, it tends to repeat the meaning of the verb as in "to dance a dance" or "to sing a song." Cognate object constructions are relatively infrequent across languages and, when present, they are restricted to a limited range of semantic domains, usually to predications which are generally considered to be intransitive such as verbs of performance, bodily secretion, and elimination (cf. Austin 1982). In these expressions, the object is more intrinsic to or contingent upon the meaning of the verb than independent from it. That is, the predicate sustains only one or two possible complements as opposed to a verb like HIT, for instance, which allows an almost inexhaustible list of concrete or metric-measuring complements (e.g. "John hit his sister," "John hit the beach early," or "John hit middle-age.") When complements are selected from a range of only one or two possibilities that are, moreover, inferrable

from the meaning of the verb, they not only are often cognate with the verb but rather superfluous semantically. Thus, the cognate object is easily omissible and, in many languages, the verb is treated lexically and syntactically as intransitive.

Not surprisingly, due to the extensive and multi-source vocabulary of the language, English tolerates a comparatively large inventory of cognate object phrases. Nevertheless, these constructions are confined to the expected domains of body function, performance, and discharge and they usually tend towards the basic Old English or Germanic vocabulary (e.g. "to give a gift" vs. "*to donate a donation"). We will find, however, that apart from these two lexical restrictions, a number of other factors affect the acceptability of the verb presenting a morphologically related object. Many of these factors relate to the way the event underlying the clause is construed and therefore do not strictly pertain to the predicate's argument structure fixed within the lexicon. These construal factors manifest themselves in the way the cognate object is set up as a distinct entity in the event being coded by the clause. For example, felicitous cognate objects in English usually require special modification of some sort either in the form of a definite or demonstrative article, or by an adjective or relative clause. To illustrate, I draw from two of the stock English cognate object constructions:

- (49) a. *Susan lived a life.
b. Susan lived a good life.
c. Susan lived the life that she wanted.
d. Susan lives her life well.
- (50) a. *Susan dreamed a dream.
b. Susan dreamed a frightful dream.
c. Susan dreamed the dream she used to dream as a child.
d. Susan dreams that dream almost nightly.

Clearly, the acceptability of sentences containing cognate object constructions depends on the expressions' ability to convey conceptual differentiation of process and processed object. If the cognate object is not a clearly differentiable participant in the event, or if it is not affected by the process, but merely effected from it, or if it is not somehow set up as special or otherwise pre-existing in the world, the cognate object construction does not obtain.

Analogous factors restrict cognate object predications of secretion when the nature of the object is internal to the process coded by the verb:

- (51) a. ??Mr. Spock bleeds blood.
b. *Mr. Spock bleeds the blood.
c. Mr. Spock bleeds green blood.
- (52) a. *Tim sweat sweat.
b. ??Tim sweat the sweat (that stained Brian's shirt).
c. Tim sweat hard-earned sweat during the hockey game.

When the secreted object is modified as in the (c) sentences in (51-52) and thus foregrounded as a separate and perhaps readily categorizable entity (by virtue of modification), the cognate object is permissible.

Several predications of facial activity and facial expression permit

cognate objects under varying circumstances. The sentences in (53-55) illustrate these points. For these predications, the cognate object is usually just an instance of the activity. If the instance becomes a type (as in the (b) and (d) sentences), it gains in general accessibility and currency and is thus construable as something more than the result of the relevant process, indeed, as a separate entity in the world. Modification (via the addition of a definite article, adjective, or relative clause) usually renders noun phrases more concrete and objectified. If a single instance is replicated (as in the (e) and (f) sentences), the cognate object may approach or achieve type status, especially if the multiple instances are all construed as different from one another.

- (53) a. *Willy sneezed a sneeze.
 b. Willy sneezed a sneeze that would wake up the dead.
 c. *Willy sneezed the sneeze.
 d. Willy sneezed the sneeze of a hay-fever sufferer.
 e. ?Willy sneezed several sneezes.
 f. Willy sneezed several sneezes in rapid succession.
- (54) a. *Neil laughed a laugh.
 b. Neil laughed a hearty laugh.
 c. *Neil laughed the laugh.
 d. Neil laughed the laugh of a very disturbed man.
 e. Neil laughed many laughs.
 f. Neil laughed many ridiculous laughs for the kids.
- (55) a. *The actress smiled a smile.
 b. The actress smiled a most provocative smile.
 c. *The actress smiled the smile.
 d. The actress smiled the smile of a temptress.
 e. *The actress smiled smiles for the photographer.
 f. The actress smiled various smiles for the photographer.

When a cognate object achieves this status as a type, as an entity generally replicable across many particular instances, it seems to take on an independent existence. It is made more concrete conceptually and, hence, is accessible, assumable, or manipulable by other agents. Once this happens, the felicity of these otherwise marginal cognate object constructions increases.

The acceptability of the frequently cited cognate object constructions in (56-57) reinforces my claims that a cognate object conceived as a distinct type rather than as a single resulting token effects a more transitive construal of the event underlying the meaning of the predicate. Songs and dances are usually pre-composed entities. The agent is simply making a further recital through the expressed activity. This effect is especially strong for the (a) sentences in (56-57) since indefiniteness of the object NP does not make the expression unacceptable or impair the conceptual integrity of the cognate object.

- (56) a. Caruso sang a song.
 b. Caruso sang the song.
 c. Caruso sang many beautiful songs.
- (57) a. Shirley danced a dance.
 b. Shirley danced the dance.
 c. Shirley danced many wild dances.

Rather unexpectedly, other intransitive verbs for which there are related nominalizations can be coaxed into a reading with a cognate object, again, if the object is set up as a special type. Whenever a cognate object is construed as specifically referential or as a token example of some entity in the world, then otherwise unacceptable (and presumably un-lexicalized) cognate object constructions are licensable. What we have in (58-61) is evidence that a single effected token has been turned into a replicable type because of the accompanying modification and it is this conceived transformation that engenders a transitive construal. Compare the unacceptable generic statements in (a) with their more specific and special counterparts in (b):

- (58) a. *Everyone walks a walk.
b. Everyone can walk a funny walk.
- (59) a. *Marilyn is humming a hum.
b. Marilyn is humming a most annoying hum.
- (60) a. *My boss just grinned the grin.
b. My boss just grinned the grin that means "more work."
- (61) a. *Fred just hiccupped a hiccup.
b. Fred just hiccupped a hiccup that managed to disturb the entire room.

Should all such similar verbs be marked for their ability to take a cognate object? Most intransitive verbs of performance, secretion, or elimination (the semantic fields associated with cognate object constructions cross-linguistically) can be coaxed into taking cognate objects with sufficient modification. In the (b) sentences in (62-64), I give examples of atypical yet fully acceptable cognate object constructions when the cognate object achieves a necessary degree of individuation by virtue of modification:

- (62) a. *The octopus spit spit.
b. The octopus spit inky spit.
- (63) a. *The teacher winked a wink.
b. The teacher winked a final good-bye wink.
- (64) a. *He pissed some piss.
b. He pissed some pure-beer piss.

These data raise a number of questions. How do we know in advance which previously assumed intransitive verbs can even take a cognate object? A different question is whether lexical entries for any verbs should select objects on the basis of their definiteness or the presence of modifiers? Should a separate lexical component code grammatical information that seems so inherently syntactic?

4. Specifying Lexical Entries in a Dynamic and Distributed Lexicon

I return now to the problem of specifying variable subcategorization frames in the lexical entry for a verb when a verb's argument structure is not necessarily a given. The data discussed here constitute neither strictly novel nor completely fixed expressions in the English language. Many lexical items used by a speaker, for example, one of the omitted object

constructions in (40) or one of the acceptable cognate object constructions in (62-64), may conflict with those lexical items actually specified by conventionalized expressions and imagined to be in the lexicon by linguists. At best, such lexical items will be underspecified by established expressions. The set of expressions that are completely prefigured by existing or fully-sanctioned lexical entries is quite small and represents only a subset of those that a speaker is capable of utilizing or evaluating. Furthermore, it is not clear that a more complete entry in the lexicon can even begin to code some of the effects I have presented here. The differences between lexically transitive and intransitive versions of these verbs are based not on their *a priori* values but on their actual usage in a clause.

Most lexical items are polysemous. A lexical entry or set of related lexical entries will necessarily underspecify several legitimate senses of a verb. It will underspecify in terms of meaning, in terms of argument structure and in terms of the semantic roles those arguments assume. In short, whatever information is consigned to a lexical entry will at best apply to a lexical item's prototypical meaning and usage. Indeed, despite its theoretical usefulness, the notion "lexical item" is not a natural unit of linguistic organization anymore than a citation form represents natural pronunciation of a word. A lexical item is a constituent of a semantic network and semantic networks may encompass many lexical items at once. Moreover, semantic networks associated with various categories may be populated to different degrees and by elements of varying category level. The different constituents of the network may vary along many parameters beyond objective form and content, parameters that we are only beginning to understand.

If a thoroughly adequate account of, say, a verb's argument structure is to be specified, the lexicon must extend its scope to include many paradigmatic factors such as those discussed here. Taking seriously the kinds of information that would need to be in the lexicon would lead to a gross elaboration and proliferation of lexical entries. Clearly, a more distributed view of lexical knowledge is needed. Lexical and syntactic knowledge are continuous (cf. Langacker 1987). Grammaticization amounts to the simultaneous satisfaction of multiple constraints. A verb's meaning and subsequent syntactic behavior is not atomistic. Its meaning and usage is embedded in the context in which it appears. A verb's pragmatic environment, its level in a semantic hierarchy, or the identity of its actual complements all influence the way in which it is used and the number of arguments it will bear. There is simply no economical way of spelling out conclusively, that is, in a lexicon, how a verb will be used and what it will mean. In short, whether or not a transitive verb can omit its object or an intransitive one can take on a cognate object cannot possibly reside in the lexicon as a property of certain verbs because a lexicon with fixed lexical entries does not really exist. The lexicon is truly a convenient fiction in linguistics and one that does not stand up to very much scrutiny. This is not to imply that there is no such thing as lexical knowledge. Rather, that knowledge is best thought of as part of a dynamic, interconnected network that can access sound, meaning, context, and speaker intent simultaneously.

Notes

[1] Fromkin 1987 includes orthographic information in the lexicon as well, but relegates these different types of information to different sublexicons in order to boost her argument for a modular view of language that will better accommodate, so she claims, a variety of specific aphasia deficits.

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