

Can we put event nominals to rest? (Syntax)

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2005 December

It has been argued for English (e.g., Grimshaw (1990)) that nouns fall into at three different categories: complex event nominals, result nominals, and concrete nouns. In this paper I will present a construction centered on what appear to be event-denoting nouns. A syntactic and semantic analysis of this construction will call into question the strict categorization given above, and additionally pose questions for the richness of lexical semantic representation and restrictions on the mapping from semantic structure to syntactic structure.

The verb *put* has a use in English that looks remarkably like a (causative) light verb. The basic syntactic frame in which it appears is demonstrated in (1).

- (1) a. Your gift is urgently needed and will be *put* to immediate use.
- b. The concept of a landing at Inchon was certainly strategically appealing, and was the germ of the operation which in September would *put* the enemy to ignominious flight.
- c. A gentle tap on the windowpane *put* them to sudden flight.
- d. The old classic Hanna-Barbera cartoons *put* me right to sleep.

The basic construction is *X put Y to Z*. The semantics, roughly, is ‘X acts on Y such that Y becomes a participant in event Z.’ I will call Y the **pivot** and Z the **secondary predicate** (SP). Assuming that every string that corresponds to this form is in fact the same construction, some questions immediately present themselves: In this construction (*X put Y to Z*), is the SP a noun or a derived verb? Does it denote an event? Is every word that can appear in that syntactic slot of the same syntactic or semantic type? What words can occur? Some of these questions can be immediately answered by the following sentence:

- (2) Will my toddler sleep better if I *put* him straight to bed later?

Answer number one: the SP is a noun. Note that the SPs in (1d) and (2) are indeed nouns, guaranteed by the presence of preposition-modifying adverbs *right* and *straight*, which in turn indicates that *to* is a preposition, not a complementizer. Adjectives like *sudden* and *immediate* in (1) also point in this direction. Answer number two: there is no restriction

that the SP denote an event: *bed* is not generally considered an event-denoting nominal in the usual sense of “event.”¹

The OED gives a long list of possible SPs. They include (of the non-archaic ones that I find grammatical): *motion, order, power, practice, print, use, work, sleep, death, judgement, rebuke, shame*. These are just the possibilities for a bare noun SP. Full NPs include (a) *vote*, (a) *choice*, and (a/an) *end/halt/stop*.

Some generalizations can be made about these SPs.

- (3) The subject of *put* is construed as the Agent of the SP, or at least as closely related to the Agent of the SP—but only for the transitive nouns (i.e., those denoting events with an Agent and a Patient/Theme).
- (4) With the exception of *choice*, transitive SPs appear with Patient/Theme pivots, not Agent pivots. The intransitive nouns (those with only Agent or only Patient) appear with their single argument as pivot. There is no co-construal with *put*'s Agent.

Regarding these generalizations, consider the following sentences:

- (5) a. *The manager *put* the new computers to (his assistant's) use (by his assistant).
- b. *The manager *put* his assistant to use. (= ‘caused his assistant to use something’)

Furthermore, a mere instance of some X acting upon some Y such that they use some instrument is not necessarily compatible with *put*. For instance, the situation where *I got my friends to use Linux* is not necessarily describable with *I put Linux to use*. A situation where I have some copies of Linux, or am licensed to distribute it, and put all of them on computers that my employees must use, and they use it and are thus productive, then this situation licenses the *put* construction. What this means is that the representation of the construction must force this reading for transitive cases. Regarding intransitives, *X put Y to sleep* in no way entails or even implicates that X is somehow related to Y (X can even be inanimate, such as a song or event).

A crucial question for the representation of this construction is whether or not the SPs have syntactically-realized argument structure. Grimshaw (1990) argues that one type of nominal, complex event nominals, have an argument structure which is projected from some representation of their semantics. Several distinguishing characteristics follow from this, including (i) obligatory co-occurrence with all associated arguments, (ii) internal temporal structure, and (iii) event control. These properties unanimously point to *use* and *flight* in (6–7) being complex event nominals.

- (6) a. His skillful use *(of the complex machinery) was amazing.

¹Though consider: *put the child to bed on the floor* and **put the child to chair*.

- b. I was astounded by his flight [?](from the enemy) so soon.
- (7) a. {The / Her} {constant / intentional} use ^{*}(of ICT implants) in order to obtain remote control over the will of people should be strictly prohibited.
- b. Taking into account Scott’s intentional flight ^{*?}(from the crime scene), the face to face informant, [...].

This pattern of ungrammaticality, as well as the presence of certain argument structure-guaranteeing elements (such as Agent-oriented modifiers and event control (Grimshaw 1990:50–52)) shows that *use* and *flight* have uses as complex event nominals, with complete event structure.

Another test, developed by Davies & Dubinsky (2003), is extraction from an NP headed by an event nominal. According to Davies & Dubinsky, complex event nominals always allow extraction of participants (i.e., LCS participants), while result nominals allow extraction from within an indefinite NP (2003:17).

- (8) a. [?]What do you hope to see (the) skillful use of *t* at the exhibition?
- b. [?]Who did you witness (the) shameful flight of *t* this time?

Though judgements on these sentences no doubt vary (and the inclusion of *the* also has various effects on acceptability), these sentences seem at least deviant, though not completely unacceptable. They are probably deserving of an “awkward” mark from an English teacher. However, the versions with the definite article, though not producing outright ungrammaticality, do certainly degrade the sentences considerably. The extraction test thus (tentatively) indicates that these are not complex nominals.

Of course, we could have observed from the start that not all SPs can be complex event nominals.

- (9) a. ^{*}The president’s sleep/bed in order to refresh himself was interrupted.
- b. ^{*}The drone of the construction put him to deep/long sleep/bed.

Thus, *put* does not guarantee that its PP complement contains a complex event nominal in the accepted sense. However, there is still the intuition that the SP denotes an actual event, and not a result or “instance” of the event (Grimshaw 1990:55). Furthermore, there is still the Agent/Patient distinction in (4) that must be captured. I will propose two possible representations for these facts.

Despite some countervailing evidence that not all SPs have argument structure (though all may have LCS-style semantic structure), perhaps we would like to follow our intuitions that they are event-denoting, and further assume that SPs like *use* are the same as the nominals seen in (6–7). What mechanisms are available?

Instead of positing any movement, or material that is local to the SP to get θ -roles only to move away, it is possible to analyze the *put* construction as involving a small clause, headed by a P as the single argument of *put*. The structure is quite simple:

$$(12) \quad [_{VP} \text{ put } [_{SC/PP} \langle \text{Pat} \rangle [_{P'} \text{ to } [_{NP} \text{ use}]]]]$$

This analysis has several advantages over the other analysis. First, it reflects the intuition that *put* in this use is similar to a causative light verb. Although it is not in the *v* position, it takes a single argument, one which denotes the sort of event which is caused. Second, it does not require any unmotivated movement or empty categories. But how is the Agent co-construal done, if there is no PRO? We must resort to a sort of mapping hierarchy.

Notice that only one of any SCs semantic arguments can be realized (locally). Although transitive SCs have both Agents and Patients, only the Patients are realized. Assume that each SC is associated with a rich conceptual structure including Agent and Patient. Further assume that mapping of roles to argument structure is controlled by a thematic hierarchy, such that Patients are lower than Agents. Then all we must say is that for SCs in this construction, only one role is mappable, and it is the lowest role. This is Patient for the transitives, Agent or Patient for the intransitives. Then, when a transitive SC is used, the Agent role remains unbound, but it will be co-construed with nearby possibilities: either the Agent of *put*, or possibly a prenominal modifier (for those who find it grammatical):

- (13) a. We took commercially available technology and *put* it to military use.
 b. The leader did not *put* the matter to union vote.

For this we do not necessarily assume that the modifier actually has an Agent θ -role, merely that its denotation be compatible with such a semantic role.³ This analysis seems to capture all of the relevant generalizations regarding *put*'s meaning as an event-causative verb, asymmetries in θ -roles, and co-construal. It is also easily extensible to other uses of causative *put*, such as *put X in control* and *put X in my possession*, where the copular versions (*X is in control*, *X is in my possession*) can be argued to themselves have small clauses with raising.

Further motivation for the small clause analysis comes from the independent existence of some senses of *use* that do not take local arguments, but are quite similar in meaning to its use as an SP. In particular, *use* in *We got no use (*of it) out of it* and is similar to the SP use insofar as both mean “get some good results from a use (of something).” Thus there may be no need to posit a special word *use* that has a deficient argument structure. Unfortunately, this argument works only for *use*, as far as I know; the data are just too sparse to make solid claims.

³This may also be a clue as to why true genitives are bad in the prenominal position: genitives may actually need to receive a θ -role, though in this case there is no possible assigner, so the result is ungrammatical.

There are, however, several remaining issues. First is the case of *put X to bed*. This should probably be treated as a multi-word expression, listed in the lexicon. Either that or *bed* must be given a special meaning just for this construction, which is not ideal. However, this is related to the larger issue of productivity. Although SPs of all types (transitive—*use*, *rebuke*; unergative—*work*, *sleep*; unaccusative—*death*, *halt*) are possible, far from all are. Impossible SPs include *laugh*, *enjoyment*, *rise*, *fall*, and *construal*. In fact, most event-denoting nouns, including all gerunds, are impossible. This fact, if not arising from the lexical semantics of the SP, is most likely recorded on whichever nouns can appear with *put*. This is clearly a light-verb style approach, where nominal predicators select which light verbs they appear with (*make* for *decision*, *exact* for *revenge*, and so on). It is also in line with an analysis of semi-productive (but fairly semantically-transparent) constructions illustrated in Kay 2002.

Another loose end involves a class of aspectual SPs that show an interesting alternation:

- (14) a. The US will *put* terrorism to a stop/halt/end/finish.
 b. The US will *put* a stop/halt/end/finish to terrorism.

This alternation is not possible with other SPs (**I put use to the materials*). However, there is evidence that these are not quite parallel. Aside from any possible semantic differences, there is clearly an information-structural difference, which may be seen more clearly by adding a quantifier like *some* before the SP: I find *put some end to the madness* fine, but **put the madness to some end* to be ungrammatical (or at least semantically distinct). This suggests that with in cases like (14b) there is some referentiality to *stop*, and in fact that sentence may merely be the “literal” use of *put* with a metaphorical interpretation. This dovetails nicely with the following observations: (i) the SP is not referential (in contrast with complex event nominals, which can be co-referential with pronouns), and (ii) with (14b) either *stop* or *terrorism* can be passivized, but with (14a) only *terrorism* can be passivized: ✓ *Terrorism was put a stop to*, but not **A stop was put terrorism to*.

If the above analysis to the *X put Y to Z* construction is close to the truth, then it provides several insights into the nature of semantic representation. First, we cannot do without a mention of external arguments in the event-denoting nouns, arguing against a Kratzer-style analysis in the nominal domain. Second, some nouns, in some constructions, can denote events (rather than their results) without being associated with an argument structure. Of course, the data presented here is rather sparse, and should be more thoroughly compared to other causative light verb constructions as well as other unusual uses of event nominals.

References

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