

***Wh*-Extraction and the Lexical Representation of Verbs¹**

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0. Introduction

Verbs taking CP complements vary in whether they allow *wh*-extraction from their CP (i.e., in whether they are "bridge" verbs), and also in whether they allow the head of their complement CP to be phonologically null. In English, whether a verb permits a null C is closely related to whether subject extraction is possible, because overt C produces *that*-trace effects. Erteschik (1973) noted that the properties of being a bridge verb and of allowing null C are highly correlated. In this paper I will examine two principal questions: Why are certain verbs, and not others, bridge verbs; and why do certain verbs, and not others, allow null C. To the extent that being a bridge verb is in fact correlated with allowing null C, I will be concerned with explaining this fact. On the other hand, I will explore in some detail a class of verbs, namely the degree-of-desire verbs discussed by Borkin (1972), which are bridge verbs but do not allow null C.

In accounting for whether a given verb is a bridge verb and/or allows null C, I will explore lexical-semantic distinctions among verbs, and will speculate on possible mapping principles relating lexical semantics to (underlying) syntactic representations. In particular, I will propose that there are two main ways in which a CP complement may receive an interpretation: The CP may be taken as an argument of a predicate, or the CP may be taken as an appositive to an NP (cf. Stowell 1981). Moreover, I will propose that a CP may be taken as an argument if and only if the predicate attributes to its subject a propositional attitude towards the content of the CP. Thus, bridge verbs allow extraction from their CP complement because the verb implies a propositional attitude towards the content of the CP, and therefore takes the CP as an argument; because the CP is selected by the verb, extraction from the CP is permitted. Non-bridge verbs that take a CP complement also take an overt or underlying NP direct object, and the CP is interpreted as an appositive expressing the informational content of the NP. Extraction from appositives is generally impossible, perhaps for reasons relating to Ross's (1967) Conjoined Island Constraint, and thus extraction from the CP complements of non-bridge verbs is blocked.

The proposed significance of propositional attitudes for bridge verbs is supported by an examination of null-C verbs. I will argue that being a bridge verb depends on properties of an entire predicate, but being a null-C verb depends on properties of a lexical head. In the case of

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degree-of-desire verbs, I will again argue for an analysis involving an underlying NP direct object. On the assumption that an N^0 head cannot by itself express a propositional attitude, the fact that degree-of-desire verbs do attribute a propositional attitude to their subject will be a property of the V+NP predicate as a whole. The CP complement occurring with degree-of-desire verbs is an argument of the *predicate*, and hence allows extraction. On the other hand, degree-of-desire verbs do not allow null C in the complement, because in general null C must be identified through head-government by an appropriate head. The only candidate head in a degree-of-desire predicate would be an N^0 , and N^0 never licenses null C (Kayne 1980, Stowell 1981). One explanation for the inability of N^0 , even in degree-of-desire predicates, to license null C may be that a head can govern into an XP only if the head (itself) L-marks the XP. If N^0 cannot by itself express a propositional attitude, then it cannot L-mark a CP and cannot govern into a CP to identify a null C.

1. Bridge Verbs

The manner-of-speaking verbs (1), discussed in some detail in (Zwicky 1971), have been observed by Postal (1974) (among others) to block extraction, as illustrated in (2).

- (1) (From Zwicky 1971): *shout, scream, yell, holler, bellow, whisper, shriek, wail, lisp, hoot, growl, gmnt, mumble, moan, howl, mutter, whine.*
- (2) a. Whom did John say that Mary likes t?
 b. *Whom did John grunt that Mary likes t?

The failure of manner-of-speaking verbs, as compared to verbs such as *say, tell, and believe*, to serve as bridge verbs may provide clues as to what factors in general are relevant to a given verb's ability to serve as a bridge verb, and moreover as to why those factors should be relevant.

As a starting point, let us consider the possible syntactic relationships between a CP complement and the predicate in which it appears. The CP could be an argument of the (head of the) predicate, it could be adjoined to the predicate, or it could be licensed through some association (predication, apposition) with another constituent of the predicate.² The possibilities for extraction will be expected to differ depending on the relationship between the CP and its predicate, as suggested by (3).

- (3) a. Whom did John say that Mary met t
 b. ?Whom did Mary stay late [_{CP} PRO to meet t]
 c. *Whom did John make a bold suggestion [that Mary likes t]

At least on the usual assumption that a bridge verb such as *say* takes its CP complement as an argument, the grammaticality of (3a) shows that a CP taken as an argument does not (necessarily) block extraction. On the other hand, extraction from the adjunct in (3b), and from adjuncts rather generally, is at least mildly degraded.

Extraction from the CP complement to an N, as in (3c), is impossible. Stowell (1981)

² The interpretive mechanisms available to CPs may further constrain the possible syntactic relationships between a CP and a predicate in which it appears. For example, some XPs apparently can be licensed through a predication relation with an NP, but CP is by nature non-predicative.

argued that CP complements to nouns are not arguments of the noun, but rather are *appositives* to the NP, and are interpreted as summarizing the informational content of the NP. Assuming that Stowell is correct, (3c) shows that extraction from an appositive CP is impossible. Moreover, in paradigmatic instances of appositives such as the NP appositive in (4), extraction is equally impossible.

(4) *What did John say that Fred was [_{NP} Frederick the Great], [_{NP} King of t]

One reason the appositives so strongly block extraction could be that appositives, unlike ordinary adjuncts, are similar to *conjuncts* in a sense relevant to Ross's Conjoined Island Constraint, which also rules out (5).

(5) *Whom did John meet Fred and t

At this point there is an apparent alternative to simply stipulating that certain verbs are bridge verbs. Rather than postulate some special, lexically specified feature of bridge verbs that permits them to "de-barrierize" a CP complement, we may hypothesize that different CP-complement verbs have different syntactic relationships to their CP. Furthermore, we may attempt to relate the available syntactic relationships to the possible semantic relationships between a given verb and the CP. In this way there is a possibility of explaining the bridge verb property in terms of a verb's lexical semantics and general mapping principles relating lexical semantics to syntactic representations.

The central proposals, on this approach, are then the following:

(6) A CP complement to a non-bridge verb is related by apposition to another constituent in the predicate.

(7) A CP complement to a bridge verb is an argument of the bridge verb.

Given (6), the impossibility of extraction from the CP complement to the bridge verb in (2b) is due to the fact that the CP is an appositive, and that extraction from appositives is generally blocked, as in (3c). On the assumption that L-marked CPs freely permit extraction, the possibility of extraction from the complement of a bridge verb follows from (7).

An immediate consequence of (6) is that there must be an appropriate constituent in the predicate of (2b), to which the CP can stand in apposition. An appositive typically has the character of a paraphrase of the content of a neighboring constituent. If a CP were to serve as a paraphrase of anything other than a CP or NP, we would expect a form of type mismatch, insofar as other categories are predicative rather than argumental. I propose that, at the relevant levels of syntactic representation, the verb *grunt* in (2b) takes an NP direct object, to which the CP stands in apposition. Despite the phonological appearance of *grunt* as a simple V^0 , I suggest that underlyingly *grunt* has a syntactic representation more like (8).

(8) [_V (make)] [_{NP} (a) [_N grunt]]

Possibly, the syntactic representation of *grunt* includes a phonologically null "light verb" to which the N^0 adjoins. The N+V complex verb would then be phonologically realized as the seemingly simplex verb *grunt*.

Two facts about manner-of-speaking verbs immediately support an analysis as in (8). First,

the analysis in (8) predicts that a predicate involving a word such as *grunt* is semantically complete, or "saturated," without the presence of a CP, which is merely appositive. As a result, we predict that manner-of-speaking verbs may freely occur "intransitively," without a CP. (9) illustrates that this prediction is borne out, and that in this respect the manner-of-speaking verbs contrast with certain bridge verbs (9b).

- (9) a. John grunted.
b. *John said.

Second, the manner-of-speaking verbs (1) overwhelmingly have (homophonous) nominal forms referring to the corresponding acoustic result. This fact supports the analysis in (8) because English has a number of overt light verbs (*give, make, do, etc.*), and if (8) is syntactically and semantically well-formed it should be possible to have equivalent syntactic structures involving overt, free morphemes in place of the null (V) and bound morphemes of (8), whenever the lexicon makes the appropriate morphemes available.

At this point we may also ask what the semantic criteria are for a verb to take a CP as its argument. For several reasons, my working hypothesis will be (10).

- (10) A verb takes a CP argument if and only if the verb attributes, to its subject or to the speaker, a propositional attitude towards the content of the CP.

First, the semantic roles available to CPs appear to be relatively restricted, and generally fall into the following categories: informational content, as we have seen in the appositive constructions; adjuncts of purpose or rationale (3b); and propositions, viewed in relation to the intentional states or "propositional attitudes" of some individual or group of individuals. Free extraction from CP, at least in the cases considered so far, has corresponded specifically to the uses of CPs that did not have properties independently suggesting an appositive relation (e.g., optionality) or an adjunct relation (adverbial modifiers expressing purpose/rationale) to the predicate, and with such non-appositive, non-adjunct uses, the predicate has expressed a propositional attitude. Second, for a broader range of CP-complement verbs that I will now present, the verbs that can function as bridge verbs all appear to satisfy (10). Some representative verbs, capable of appearing with a tensed or infinitival CP complement, are the following:

- (11) Verba Dicenda (mostly drawn from Zwicky 1971):
Class I (Bridge, Null C): *say, insist, indicate, concede, claim, imply, suggest*
Class II (Bridge, Marginally Allow Null C): *report, reveal, contend, declare, maintain, allege*
Class III (Bridge, No Null C): *relate, remark, lecture (?)*
Class IV (Non-bridge, No Null C): [Manner-of-speaking Verbs in (1)]
- (12) Epistemic Verbs (Bridge, Null C): *believe, know, think, suspect*
- (13) Verbs of Reasoning (Bridge, Marginally Allow Null C): *infer, deduce, conclude, intuit (?)*
- (14) Pure Volitional Verbs: *want* (Bridge, Null C); *hope_that* (Bridge, Null C); *hope_for* (Bridge, No Null C)
- (15) Degree-of-Desire Verbs (drawn from Borkin 1972) (Bridge, No Null C): *yearn, long, crave, desire, itch*
- (16) Degree-of-Negative-Desire Verb (Bridge, No Null C): *hate_for*

(17) Raising Verbs and Predicates: *seem* (Bridge, Null C); *appear* (Bridge, Null C); *be_likely* (Bridge, No Null C)

(18) Predicates of Truth, Probability, and Possibility: *be_true* (Bridge, Null C Only With Periphrastic Usage); *be_probable* (Bridge, No Null C), *be_possible* (Bridge, No Null C)

(19) Verbs of Falsity, Improbability, and Impossibility (Bridge, Weak Islands, No Null C): *be_false*, *be_unlikely*, *be_improbable*, *be_doubtful*, *be_impossible*

Even verbs such as *lecture*, in (11, Class III), imply that their subject at least represented himself or herself as believing the content of the CP complement, as in (20).

(20) (?)Whom did Mary lecture that students should emulate t

The verbs in (17), (18), and (19) attribute a propositional attitude to their speaker, rather than their subject.³

Thus, for a considerable range of verbs, it is possible to maintain generalization (10). An alternative to (10) might be that non-bridge verbs, for whatever reason, involve an underlying NP direct object, and *as a result of taking an NP object* some syntactic constraint prevents them from L-marking a CP argument; as a consequence of not being L-marked, the CP complement of the non-bridge verbs would then be predicted to block extraction. In Section 2, however, I will argue that the degree-of-desire verbs in (15), like the manner-of-speaking verbs, have an underlying representation involving an NP direct object. The degree-of-desire verbs nonetheless permit extraction, and so provide evidence against the idea that simple presence of an NP in the underlying representation causes CP to block extraction.

To summarize this section, I have proposed that a verb is a bridge verb if and only if it attributes, to the subject or to the speaker, a propositional attitude towards the content of the CP complement; and that this fact follows from a constraint on the mapping between semantic and syntactic representations: Only a "propositional" predicate can take a CP as an *argument*. Other, non-propositional verbs that take a CP complement must take it as an appositive to a (null or overt) NP direct object; the CP is then interpreted as expressing the informational content of the NP, independently of anyone's propositional attitude towards this content. A significant range of verbs ((11)-(19)) has been examined and found compatible with these proposals. The broad outline of the approach in this section is intended to be similar in spirit, and compatible in detail, with the work of Hale & Keyser (1992), although I have not attempted to spell out the details of my proposals in terms of their framework.

2. Null-C Verbs

³The predicate *be_true*, when occurring in a periphrastic usage (ia), permits null C. (ia) is equivalent to the forms in (ib,c). (id), depending on null C in the absence of the periphrastic usage, is impossible.

- (i) a. It is true(,) John likes Mary.
- (i) b. John, it is true, likes Mary.
- (i) c. True, John likes Mary.
- (i) d. *Who is it true John likes t

Many CP complement verbs in English allow the complementizer to be phonologically null, as illustrated in (21).

- (21) a. John said (that) Mary met Bill
 b. John wants (? for) Bill to meet Karen

The nature of phonologically null complementizers, and the syntactic conditions for their occurrence, are studied in some detail by Rothstein & Snyder (in preparation). Because the precise mechanisms licensing null C are relevant here, I will quickly summarize the pertinent proposals from (Rothstein & Snyder, henceforth R&S).

Following a suggestion of Stowell's (1981), R&S argue that both traces and other phonologically empty categories must be licensed by satisfying (an appropriate formulation of) the ECP. Adapting proposals of (Rizzi 1991) and (Borer 1989), R&S take the central condition on empty categories to be a requirement of "identification," where the core case of identification is head-government by a lexical head. R&S further assume that the locality conditions for identification allow only the following structural relations:⁴

- (22) a. A head X may identify an empty category YP if X and YP m-command one another.
 b. A head X may identify an empty category in SPEC YP if X m-commands YP, and YP is the head of a chain that X selects.
 c. A head X may identify the (e.c.) head Y of a YP sister to X.
 d. SPEC YP may identify (an e.c.) Y.

For example, in (23a), *wants* identifies the phonologically null C that assigns Case to *Mary*, because the relation in (22c) holds.

- (23) a. John wants [_C e] Mary to be here
 b. John wants very much [_{CP} *(for) Mary to be here]
 c. Whom does John want very much [_{CP} t (*for) t to be here]

In (23b), where we take the CP to have been extraposed and adjoined to VP, none of the relations in (22) hold between *want* and C, and C must be overt. In (23c), however, where a *wh*-trace can appear in SPEC CP, we take *want* to identify the *wh*-trace in SPEC CP under the structural relation in (22b), and we take the *wh*-trace in turn to identify the null C as in (22d).⁵ C has to be null in (23c), we assume, because only null C in English is "agreeing" (cf. Rizzi 1991) and can

⁴ R&S discuss the identification of a full range of empty categories, and the place of so-called antecedent government effects. Here I am presenting only a sketch of the proposals relevant to the licensing of null C. I am also setting aside the licensing of null C in infinitival CPs with a null pronominal subject, although this is discussed in detail in (R&S).

⁵ Note that in addition to having a possible explanation for the presence of null C in (23c), we can rule out a competing proposal entertained in (Kayne 1980) and (Stowell 1981), that null C is possible only if CP is in a Case-position. Stowell interpreted the contrast in (23a,b) to be the result of an adjacency requirement on English Case-assignment, but (23c) speaks against this analysis, because the adjacency requirement on Case is violated, and null C is nonetheless possible.

identify the *wh*-trace that obligatorily appears in SPEC IP.⁶ The relation between null C and SPEC IP satisfies (22b).

As seen from the structural conditions in (22), a minimal requirement for a verb to identify a null C will be for the verb to select the CP (or the chain headed by the CP, if the CP has been extraposed). For this reason, non-bridge verbs, which have been argued not to select their CP complements, are predicted never to license null C. In most cases, a bridge verb will be able to identify null C, because an appropriate structural relation will hold between V and C. On the other hand, if a verb were to have an underlying representation in which a CP argument was not directly selected by v^0 , it would be possible for the verb to be a bridge verb but not to allow null C. In this section I will examine the class of degree-of-desire verbs, which are bridge verbs but do not allow null C, and I will attempt to identify an underlying syntactic representation for degree-of-desire predicates which correctly predicts the syntactic properties of the degree-of-desire verb class.

The degree-of-desire verbs were identified and discussed by Borkin (1972), and include the following:

(24) (from Borkin 1972): *desire, long, yearn, crave, lust, (be) itch(-ing), (be) dy(-ing)*, etc.

Borkin observes that the verbs in (24), though similar in meaning to *want*, are semantically more complex in that they include an inherent specification of the *degree* of desire attributed to their subject. Note that the verbs in (24) are all compatible with an infinitival *for*-clause (25), and all permit *wh*-extraction from the object position of this clause (26), but none of the verbs permit null C in their complement (27).

- (25) a. John desires for Mary to meet Bill
 b. John longs for Mary to meet Bill
 c. John yearns for Mary to meet Bill
 d. John is itching for Mary to meet Bill
 e. John is dying for Mary to meet Bill
- (26) a. Who(m) does John desire for Mary to meet t
 b. Who(m) does John long for Mary to meet t
 c. Who(m) does John yearn for Mary to meet t
 d. Who(m) is John itching for Mary to meet t
 e. Who(m) is John dying for Mary to meet t
- (27) a. *John desires Mary to meet Bill
 b. *John longs Mary to meet Bill
 c. *John yearns Mary to meet Bill
 d. *John is itching Mary to meet Bill
 e. *John is dying Mary to meet Bill

⁶ Rizzi treats English agreeing C as an instance of AGR generated in C. Alternatives would be to allow a phonologically null, agreeing C that is lexically unrelated to inflectional agreement, or to allow inflectional agreement optionally to move into C, as in (Borer 1989). The AGR-to-C movement possibility has desirable consequences in accounting for the identification of null pronominal subjects.

Borkin, for reasons relating to negation and control properties of these verbs, suggests that the verbs have an underlying representation more like the following, at least insofar as the degree-of-desire is syntactically represented as a post-verbal modifier:

[_{VP} [_V want] [_{AP} intensely/desperately/etc.] [_{CP} for ...]]

Borkin's analysis correctly predicts the facts in (25-27), as illustrated in (28,29).

(28) a. John wants desperately *(for) Mary to meet Bill

b. John longs *(for) Mary to meet Bill

(29) a. Whom does John want desperately for Mary to meet t

b. Whom does John long for Mary to meet t

On the other hand, a contrast is seen between (30a) and (30b), suggesting that (28) is not in fact a plausible underlying representation for degree-of-desire predicates.

(30) a. Whom does John want desperately [_{CP} t [_C e] [t to meet Bill]]

b. *Whom does John long [_{CP} t [_C e] [t to meet Bill]]

As discussed above, a sequence of identification relations between *want* and SPEC CP, and between SPEC CP and C, permits null C in (30a), yet in (30b) this option is not available.

An alternative approach would be to posit an underlying representation as in (31) for the degree-of-desire predicates.

(31) [_{VP} [_V have] [_{NP} a longing/desire/etc.] [_{CP} for ...]]

As discussed by Stowell (1981), the CP complement to *a longing* could not be an argument of the noun, but in a verbal predicate such as (31) we might allow the (perhaps reanalyzed) predicate *have a longing* to take a CP argument. In fact, semantically, the predicate *have a longing* does seem to ascribe to the subject a (volitional) propositional attitude towards the content of the CP, and so it would be consistent with (10) for the predicate to take a CP argument. Moreover, unlike the ordinary cases of CP appositives discussed by Stowell (cf. 32a), the CP in (32b) permits *wh*-extraction.

(32) a. *Whom was John unimpressed by Ann's belief that Mary likes t

b. Whom does John have a longing for Mary to meet t

The possibility of extraction in (32b) provides additional support for the generalization in (10), and also suggests that (31) is a candidate underlying representation for degree-of-desire predicates.

Further support for (31) comes from the distribution of null C. In (33), neither the verb *long* nor the V+NP predicate *have a longing* permits null C.

(33) a. John longs *(for) Mary to meet Bill

b. John has a longing *(for) Mary to meet Bill

The impossibility of null C in (33b) is consistent with the observation (Kayne 1980, Stowell 1981) that CP complements with noun phrases never permit null C. In terms of the present project, we might suppose that for *wh*-extraction, the requirement is simply that CP be taken as an argument of *the predicate as a whole* (e.g., as an argument of *have a longing*), but for null C to be identified, CP must be selected by *the head* that identifies C (cf. 22b,c). Thus, because neither V⁰ *have* nor N⁰ *longing* in (31) *by itself* selects the CP, there is no X⁰ that can identify a

null C, even though the CP is an argument of the predicate as a whole.

Furthermore, the analysis in (31) succeeds in accounting for (30b), as shown in (34).

- (34) a. *Whom does John long [_{CP} t [_C e] [_{IP} t to meet Bill]]
 b. *Whom does John have [a longing] [_{CP} t [_C e] [_{IP} t to meet Bill]]

As in (33), neither *have* nor *longing* can serve as an X^0 identifier for the trace in SPEC CP, because neither X^0 *by itself* selects the CP. As a result, the trace in SPEC CP fails to inherit the features necessary to identify null C, which in turn fails to identify the trace in SPEC IP

Note that still another analysis, akin to (31) but substituting an AP for the NP, could also account for the facts in (32, 33):

- (35) [V be [AP desirous/anxious/etc.] [_{CP} for ...]]

If we assume that, because of their semantic properties, neither adjectives nor nouns are independently capable of attributing to the subject or speaker a propositional attitude towards the content of a CP, then we predict that in (35), as in (31), the CP can only be an argument of an entire, (possibly reanalyzed) V+AP predicate. (36)-(38) show that (35) correctly accounts for the properties of degree-of-desire predicates observed above.

- (36) a. Whom does John long for Mary to meet t
 b. Whom is John anxious for Mary to meet t
 (37) a. John longs *(for) Mary to meet Bill
 b. John is anxious *(for) Mary to meet Bill
 (38) a. *Whom does John long [_{CP} t [_C e] t to meet Bill
 b. *Whom is John anxious [_{CP} t [_C e] t to meet Bill

I will not attempt to differentiate between the possibilities in (31) and (35), but rather will assume that both options may be available, with one or the other being more compatible with the semantics of a given degree-of-desire predicate. Given surface appearances, I suspect that verbs such as *long*, which have a homophonous nominal form, are syntactically represented as in (31), while predicates such as *(be) dy(-ing)for*, which superficially have a V+Participle structure, may have a more natural syntactic representation as in (35).

A remaining question is what prevents the existence of a degree-of-desire predicate that is underlyingly either a simplex verb or a V+Adverb combination as in (28). I will have to assume that, by virtue of principles relating lexical semantic features to syntactic categories, it is not possible to express degree modification internal to a simple V^0 , whereas it *is* possible to modify the "type" features internal to a simple N^0 or A^0 in such a way that, when combined in a V+NP or V+AP predicate, the N^0 or V^0 conveys different levels or degrees of desire. Furthermore, I will assume that (28) is blocked by constraints on incorporation, merger, or whatever process is responsible for creating the appearance of a simplex verb in degree-of-desire predicates. Depending on where adverbial modifiers are attached, for example, it may be syntactically impossible for their head to incorporate into a higher X^0 .

A final point is that, in general, bridge verbs allow null C even when their morphology suggests that they are historically denominal, as with *claim_v*, for example. In general, a bridge

verb can identify a null C in a sister (i.e., subcategorized) CP, or a *wh*-trace in SPEC of an extraposed argument CP. Thus, I assume that even when the verb is historically denominal, it can be syntactically represented as a simplex verb, rather than a V+NP predicate as in (31), so long as the lexical semantics permits the simplex verb representation. Yet, when an inherent specification of degree is involved, for example, the principles relating lexical semantics to syntactic representations must force a representation as in (31).

3. Conclusions

The two principal questions with which I began, why are certain verbs (and not others) bridge verbs, and why do certain verbs (and not others) allow null C, have now received answers that are consistent with the properties of the considerable range of verbs thus far examined. A verb is a bridge verb iff it ascribes to its subject or to the speaker a propositional attitude towards the content of the CP, because only this semantic relationship is syntactically expressed as an argument relationship between the CP and its predicate. Only when a CP (or its chain) is taken as an argument, is extraction possible. When non-bridge predicates permit a CP complement, the CP is an optional appositive, interpreted as expressing the informational content of an overt or underlying NP direct object. Insofar as the structural relationship required for null C to appear is possible only if the CP is taken as an argument of the predicate, non-bridge verbs are predicted never to allow null C in their CP. On the other hand, null C is subject to the additional requirement of being identified by a lexical head, (roughly) under the structural conditions traditionally assumed for head-government. In particular, while extraction from CP depends merely on the CP's being taken as an argument of the *predicate*, identification of null C depends on the CP's being taken as an argument of the *head* that identifies the C⁰. If the syntactic representation of a verb underlyingly has the structure of a V+NP or V+AP predicate, as I have proposed for degree-of-desire verbs, and the CP is an argument of the V+XP predicate as a whole, but not of any single head, then we predict that the verb will behave as a bridge verb but will not permit null C, as has been observed for degree-of-desire verbs.

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