
Information structure and pronominal reference to clausally introduced entities

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ABSTRACT. Clausally introduced entities in English are more frequently accessible to reference with a demonstrative pronoun than with the personal pronoun *it*. This fact can be explained on the assumption that such entities are typically activated, but not brought into focus, immediately subsequent to their introduction into a discourse. However, clausally introduced entities are, in fact, sometimes referenced with *it* immediately subsequent to their introduction. An examination of the discourse environments in which this is possible provides insights into the various factors, including information structure, which can boost the salience of an entity and bring it into focus.

1 Introduction

When entities are introduced into a discourse by a clause (or other non-nominal expression), they are accessible to immediate subsequent reference with demonstrative pronouns, but comparatively less accessible to reference with personal pronouns, as noted by Webber (1988) and others since¹. Thus, Webber (1991) found that of 96 pronominal references referring to the interpretation of one or more previous clauses in written English texts, only 15 used the personal pronoun *it*, while the rest were demonstrative *this* or *that*. Personal pronouns tend to favor reference

¹Our examples here will be from English, although similar restrictions on pronominal reference to clausally introduced entities can be found in other languages.

to nominally introduced entities, and reference to a clausally introduced entity with *it* is often impossible, or at least highly infelicitous, as illustrated in the following examples.

- (1) a. There was a snake on my desk. **That** scared me.
 b. There was a snake on my desk. **It** scared me. (Borthen, Thorstein, and Gundel 1997)
- (2) a. Max destroyed his leaf collection last night. **That** was dumb.
 b. Max destroyed his leaf collection last night. **It** was dumb
- (3) a. Simplified English disallows the use of passive, progressive, and perfective auxiliary verbs, among other things. **This** requires engineers ...
 b. Simplified English disallows the use of passive, progressive, and perfective auxiliary verbs, among other things. **It** requires engineers ... (Gundel, Hedberg, and Zacharski 1993)
- (4) a. “We believe her, the court does not, and **that** resolves the matter,” Mr. Montanarelli said today of Ms. Lewinsky’s testimony that she had an independent recollection of the date.
 b. “We believe her, the court does not, and **it** resolves the matter,” Mr. Montanarelli said today of Ms. Lewinsky’s testimony that she had an independent recollection of the date. (*New York Times*, May 24, 2000)
- (5) a. Cloned humans might show higher rates of cancer or other diseases, but we’d only find out by cloning them and waiting to see if disaster strikes. None of **this** means, however, that ... even that human cloning isn’t going on right now. (Talbot, Margaret. February 4, 2001. *New York Times Magazine*, Section 6, p.45.)
 b. # None of **it** means, however, ...
- (6) A: I read somewhere that the poodle is one of the most intelligent dogs around.
 B: well uhm..I definitely wouldn’t dispute **that**. (Switchboard Corpus, Dialog 2019)
 B’: ?? well uhm..I definitely wouldn’t dispute **it**.
- (7) A1: So you fired her?
 B: We’re going to do a lot more than just fire her.
 A2: What does **that** mean? (from the soap opera “The Bold and the Beautiful”)
 A2’:# What does **it** mean?²

²Note that *it* in this example, as well as the preceding one, would be infelicitous even if stress falls on the verb.

The demonstrative pronoun in (1)-(7) refers to some entity (a situation, fact, act, etc.) introduced by a previous clause. By contrast, the pronoun *it* is either most naturally interpreted as referring to an entity introduced by a nominal, as in (1)-(4), or it renders the sentence infelicitous in the context when there is no appropriate nominal antecedent, as in (5)-(7). In (2), for example, the pronoun *it* is most easily interpreted as referring to Max’s leaf collection, not his act of destroying it. And in (7), A2’ is infelicitous because *it*, unlike *that*, cannot refer to B’s statement “we are going to do a lot more than just fire her.”

In this paper, we argue that facts regarding the distribution and interpretation of *this/that* vs. *it* referring to clausally introduced entities can be explained within the theory of reference and cognitive status proposed by Gundel, Hedberg, and Zacharski (1993 and earlier work). Approached in the context of this framework, these facts also provide insights into the more general question of how various linguistic factors, including information structure, promote the salience of discourse entities and bring them into the addressee’s focus of attention.

2 The Givenness Hierarchy

Gundel *et al* (1988, 1993) propose that determiners and pronouns constrain possible interpretations of nominal forms by conventionally signaling the memory or attention status that the intended referent is assumed to have in the mind of the addressee. Gundel *et al* identify six cognitive statuses. The array of statuses, called the Givenness Hierarchy, is presented in Figure 1.

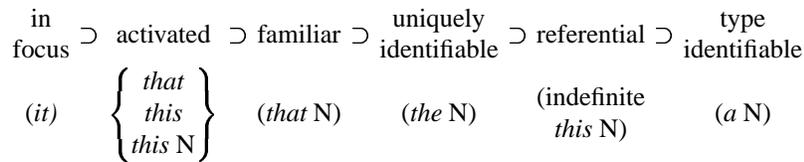


Figure 1. The Givenness Hierarchy (GH) and associated forms in English.

Statuses on the hierarchy correspond to memory and attention states, ranging from most restrictive, “in focus”, to least restrictive, “type identifiable.” An empirical claim of the theory is that all languages have ways of coding cognitive statuses with individual determiners and pronouns, and that such forms will be used appropriately only if the status they conventionally code within the language is satisfied in the given context of use. The forms thus serve as processing signals which assist the addressee in restricting possible interpretations.

The statuses are in a unidirectional entailment relation. If something is in focus (center of attention), it is necessarily activated (in working memory); if it is activated, it is necessarily familiar (in memory); if it is familiar, then the addressee can associate a unique representation; if the addressee can associate a unique representation, then it is referential; and if it is referential, it must be type identifiable.

The theory thus correctly predicts that a given cognitive status can be appropriately coded by a form which explicitly signals that status, but also by forms whose meanings are entailed by that status. In the latter case (e.g. use of a definite article for a referent that is in focus) the form is simply underspecified for cognitive status of the intended referent.

The use of underspecified forms has limits, however, because of interaction of the Givenness Hierarchy with general pragmatic principles involved in language production and understanding (see Grice, 1975, Sperber and Wilson, 1986/95). The implicational nature of the GH gives rise to “scalar implicatures”, in the sense of Horn (1972), which further restrict the distribution and interpretation of referring forms (see Gundel *et al.*, 1993, Gundel and Mulkern, 1998). For example, in English, the indefinite article is rarely used if the status is higher than referential, resulting in association of the indefinite article with unfamiliarity. Use of the indefinite article typically implicates by the first part of the Quantity Maxim (make your contribution as informative as possible) that conditions for using a more restrictive form are not met since the addressee is not able to uniquely identify an intended referent. Another result of interaction of the Givenness Hierarchy with the Quantity Maxim is that most in-focus referents are not coded with demonstratives, even though they could be; and demonstratives often implicate a focus shift.

As seen in Figure 1, Gundel et al propose that demonstrative pronouns in English code the status “activated”, whereas the pronoun *it* codes the more restrictive status “in focus”. This permits an explanation of facts like those in (1)-(7), if the clausally introduced entities in these examples have been activated but not brought into focus. In the following section, we examine factors that contribute to bringing an entity into focus, including the role that information structure plays in determining the cognitive statuses of referents introduced by clauses, and thus the nominal forms which can be used to refer to these entities.

3 What brings an entity into focus of attention?

3.1 Syntactic structure

The framework outlined above makes predictions about the appropriateness of different pronominal forms depending on whether or not the intended referent can be assumed to be in focus for the addressee. Although the theory itself does not predict what brings an entity into focus, Gundel et al. (1993) suggest that “the entities in focus at a given point in the discourse will be that partially-ordered subset of activated entities which are likely to be continued as topics of subsequent utterances.” Membership in this set is partly, though not wholly, determined by syntactic structure. For example, subjects and direct objects of matrix sentences are more likely to bring an entity into focus than elements in subordinate clauses and prepositional phrases (cf. the Centering Algorithms of Grosz, Joshi, and Weinstein, 1995a,b). These assumptions make it possible to explain facts about the distribution and interpretation of demonstratives and unstressed personal pronouns

(including *it*) such as those illustrated in (8) and (9).

- (8) a. My neighbor's Bull Mastiff bit a girl on a bike.
b. **It's/That's** the same dog that bit Mary Ben last summer.
- (9) a. Sears delivered new siding to my neighbors with the Bull Mastiff.
b. **#It's/That's** the same dog that bit Mary Ben last summer.

Since the Bull Mastiff is introduced in matrix subject position (and is most likely also the topic) in (8a), it is brought into focus, and can therefore be appropriately referred to with either *that* or *it* in (8b). The pronoun *it* is possible in (8b) because the intended referent is in focus. The pronoun *that* is possible because anything in focus is also activated, i.e. in working memory. But in (9), where the Bull Mastiff has been introduced in a more peripheral position, it is activated but not brought into focus. Therefore, only reference with *that* is possible.

This account can be naturally extended to facts like those in (1)-(7) if we make the relatively uncontroversial assumption that entities (indirectly) introduced by a whole clause, or sequence of clauses, will be activated, but are much less likely to be brought into focus than entities introduced by major thematic arguments of the verb. For example, in (2), at the conclusion of A's utterance, the act of destroying the leaf collection can be assumed to be activated, since it was just introduced in the preceding sentence, but not in-focus; the focus of attention after the utterance is processed is on the referents of the major arguments in (2A), specifically, Max and the leaf collection. Similarly, in (5), the complex situation consisting of potential drawbacks to human cloning is rendered activated by the first paragraph, but we can assume that it is not rendered in focus given the higher salience conferred by this passage on cloned humans, rates of cancer, and other referents of main clause arguments.

A fact or proposition introduced by an NP within a clause is also more likely to be brought into focus than one which is introduced by the whole clause. Compare (10) with the examples (1)-(7) above, for example.

- (10) a. Then, Maria brought up another fact. **It** sent shivers down my spine.
b. Max then introduced a new proposition. But **it** was rejected.

3.2 Semantic and pragmatic factors

Conditions which appear to boost the salience of entities also include less overt factors such as covert arguments, presuppositions and prior beliefs, and even inquisitive looks, all of which can cause an entity to be "reprocessed", and thus brought into focus, even when it is overtly mentioned only once (see Borthen, 1997, Gundel, Borthen, and Fretheim, 1999).

In (11), a baseline case for comparison, the speaker, upon clausally introducing the fact that linguists earn less than computer scientists, can assume that this fact is rendered activated, but not in-focus, for the hearer, leading to a preference for *that* over *it* in the follow-up reference to this fact.

- (11) a. I hear linguists earn less than computer scientists, and **that**'s terrible.
b. ?? I hear linguists earn less than computer scientists, and **it**'s terrible.

In (12), in contrast, the follow-up reference is made by another speaker, which results in somewhat more complicated inferences regarding the cognitive status of the fact at issue.

- (12) A: I just read that linguists earn less than computer scientists.
B: (i) **That**'s terrible! (ii) **It**'s terrible!

At the completion of A's utterance, B can assume that the fact that linguists earn less than computer scientists is at least activated for A. In response B(i), B's use of *that* signals the assumption that this fact has been activated, but possibly not brought into focus, by A's utterance, thereby inviting A to infer that the fact is news to B. In response B(ii), B signals the assumption that the fact is in focus for A, or ought to be, consistent with it being accepted background information for discourse in the relevant social circle; this invites A to infer that B already knew the fact.

In (13) below, the proposition that B has a dental appointment is clausally introduced by A's utterance. If the mere utterance of a sentence does not bring the expressed proposition into focus, this would explain why (13)B' sounds unnatural, given that *it* requires the referent to be in focus, whereas *that* merely requires activation.

- (13) A: You have a dental appointment at noon.
B: That's true.
B': ??It's true.
B'': It's true, then.

But (13) B'' is noticeably more acceptable than (13)B'. Following Gundel et al. (1999), we suggest an explanation of this fact, drawing on a relevance-theoretic approach to the pragmatics of language understanding (Sperber and Wilson, 1986/95). The word *then* in B'' functions as an interpretive particle which conveys the meaning that the content of the sentence it is appended to follows by way of inference from something the addressee just said. The response by B in (13)B'' means essentially, "Given your assertion that I have a dental appointment at noon, then I can take it as confirmed that I have a dental appointment at noon." The only way the utterance in B'' can yield contextual effects for A is if A's utterance confirmed the truth of a proposition that B had been questioning, and B knows that A is aware of this. Thus, the fact that B had a dental appointment at noon was not activated for the first time by A; rather, A's utterance brought into focus a fact that was already mutually manifest to both A and B beforehand, thereby licensing the use of *it* in B''.

Salience can also be boosted non-linguistically. For example, the exchange in (14) below is fully natural if A gives B a skeptical look during the indicated pause.

(14) A: Why didn't you come to the rehearsal yesterday?

B: I thought I told you. I had to help Peter move. (Pause) It's true!

The skeptical look communicates A's skepticism about the truth of the proposition just expressed by B, thus causing the proposition that B has to help Peter move to be reprocessed (by both A and B) and assuring that it is mutually in focus, making it accessible to reference with *it*.

Salience of an entity in the environment also suffices for pronominal reference with *it*. If A and B are in a room together with a baby who suddenly begins to walk, A can produce the utterance in (15), or, if A sees B watching the baby walk, the utterance in (16).

(15) Will you look at **that!** The baby's walking. (Jackendoff 2001)

(16) Isn't **it** great? [it = the fact that the baby is walking]

4 The role of information structure

The cognitive status, and therefore the accessibility to pronominal reference, of a clausally introduced entity is partly constrained by the information structure of the utterance in which it is introduced into a discourse³

In particular, information structure yields some striking effects, but also a surprising asymmetry, when higher order entities are introduced by (or within) clausal complements.

Entities introduced by clausal complements to bridge verbs, such as *think*, *believe*, and *say*, exhibit the familiar pattern of being rendered activated, but not in-focus, through mention by a clause. This is shown by the naturally occurring example in (17) below, as well as by the constructed data in (18), tested on a small survey of English speakers⁴

(17) Ising reportedly believed that his negative results would hold in higher dimensions as well.

In bf this conjecture he was wrong. (*American Scientist* 88:385)

In **this/ #it**, he was wrong.

(18) What does Alex think?

³By information structure, we mean a bifurcation of material in an utterance into what has been called focus versus ground, comment versus topic, or rheme versus theme. This notion is not to be identified with contrastive focus or with the more general distinction between new versus old information. Information structural focus is also distinct from the cognitive status "in focus". See Valldví (1990) and Gundel (1999a) for more detailed discussion of related terminological and conceptual issues. We will indicate information structural focus by the subscript *F*.

⁴The use of *it* in (17) would be just as infelicitous if the PP were not preposed. Thus, the infelicity of *it* in (17) cannot be attributed to its incompatibility with the secondary focal stress it bears in this position.

- A: Alex believes [_F that the company destroyed the FILE].
 B: **That's** false; the file has been submitted to the district judge.
 B': # **It's** false; the file has been submitted to the district judge.

When (18A) is used with the focus-structure shown, to introduce the proposition that the company destroyed the file, the response by B using *that* is much more felicitous than the response with *it*. However, *it* and *that* are equally good when the complement clause is in the ground (theme/topic) of A's utterance, as in (19).

- (19) A: Alex [_F INSISTS/BELIEVES] that the company destroyed the file.
 B: But **that's/it's** false; the file has been submitted to the district judge.

Since an entity associated with the ground (theme;topic) is already at least familiar to the addressee prior to the utterance (see Gundel 1988) *inter alia*), its mention within the utterance suffices to bring it into the focus of attention, if it does not already have that status.

In (17)-(19), relational givenness/newness and referential givenness/newness (in the sense of Gundel, 1988, Gundel 1999a,b) are coextensive. For example, the information structural focus in (18) represents a proposition that is not only new in relation to the topic (what Alex believes), but also referentially new to the hearer; and the clausal complement in (19A) (that the company destroyed the file) represents a proposition which is not only given in relation to the informational structural focus; it is also referentially given in the sense of being at least familiar, and probably also activated. But material in the informational focus doesn't have to be referentially new (see Gundel 1980, Gundel 1999a, Gundel 1999b, Vallduví 1990, Lambrecht 1994). So when we have a bridge verb complement which is an information structural focus, but is already activated in the discourse, which factor wins out? Is an entity expressed by such a complement rendered in-focus or does it remain merely activated? Is it accessible to reference with *it*, or only with *that*? Consider (20).

- (20) A1: I believe that the company destroyed the file, but not everybody does.
 B1: What does Alex believe?
 A2: Alex believes [_F that the company destroyed the file].
 B2: But **it's/that's** false; the file has been submitted to the district judge.

(20B2) suggests that it is referential givenness (cognitive status of a discourse entity) , and not relational givenness (topic-focus structure) that determines whether the complement of a bridge verb will be brought into focus.

But now flip the problem around. Content in the topic/ground of an utterance does not always have a high degree of referential givenness. Its cognitive status may be merely familiar, but not necessarily activated. So when we have a bridge verb complement which is ground material, but new to the discourse, which factor wins out? Is an entity introduced by such a complement rendered in-focus, because

it is in the ground, or merely activated, because it is new to the discourse? Is it accessible to reference with *it*, or only with *that*? Consider (21) [secondary stress on *murdered*]:

- (21) a. Alex is hopeless.
b. He [_F INSISTS] that Tom was murdered, for example,
c. –even though there’s not a shred of evidence for *that*.
–even though there’s not a shred of evidence for *it*.

Use of *it* is as felicitous as *that* in (21c). The information structure of (21) forces an interpretation where the content of the complement clause is already familiar, so that (21b) renders it in-focus, making it available to reference using *it*. Thus, presentation of a clausally introduced entity in the ground of an utterance is another way to promote salience, and bring the entity into focus, even if it is, in fact, new to the discourse.

With bridge verb complements, we thus appear to have an asymmetric situation: bifurcation into focus/ground has no effect on the cognitive status of an entity introduced within the information structural focus⁵ But it **can** have an effect when an entity is mentioned (even introduced) within ground material, because mention within the ground necessarily signals a higher cognitive status for the entity. This conclusion is preliminary, however, in that the judgments are subtle, and naturally occurring data that would bear directly on the issue is sparse.

5 Lexical structure versus information structure

When the bridge verb in an example like (18) is replaced with a factive verb, demonstrative and personal pronouns can both be used to immediately refer to the proposition expressed by the complement clause, regardless of the information structure of A’s utterance, as seen in (22).

- (22) A: Alex verified that the company destroyed the file.
B: That’s false; the file has been submitted to the district judge.
B’: It’s false; the file has been submitted to the district judge.

Thus, the contrast in (18) between subsequent reference with *it* versus *that* is not exhibited in (22). The lexical semantics of the factive verb enforces the condition that the entity expressed by the complement clause be already familiar (or at least capable of being accommodated as familiar) to the addressee, so that its further mention in A’s utterance renders this entity in-focus.

In order to understand this fully, it is useful to note that this pattern is not confined to complements of factive verbs. It is also obtained in complements to

⁵Gundel (1999a) makes a similar observation, concluding that mention within the information structural focus (her “semantic focus”) doesn’t necessarily bring an entity into focus of attention.

certain non-factive (and non-bridge) verbs, including *agree*, *emphasize*, *deny*, and *doubt*, and in complements to the non-factive adjectival predicate *be certain*.⁶

- (23) a. Alex and Susan agree that the company destroyed the file. I'm surprised that they believe it.
 b. Alex and Susan agree that the company destroyed the file. I'm surprised that they believe that.
- (24) A: Alex is certain that the company destroyed the file.
 B: That's false: the file has been submitted to the district judge.
 B': It's false: the file has been submitted to the district judge.

As with factive predicates, the pattern in (23)-(24) is one in which **it** is at least as felicitous as **that** in referring to the content of the complement clause, and, in some cases, more so.

The predicates in (23)-(24) are not factive (in the sense made clear by Kiparsky and Kiparsky (1971)) since they don't commit the speaker of the ascription in which they occur to the truth of their complement clauses. However, they share with factives a slightly more subtle semantic property: they are felicitous when the proposition, fact, or situation expressed by the complement clause is already accepted as given or familiar in the discourse (see Hegarty, 2001). Using a situation variable in the semantics, in the context of Discourse Representation Theory (Kamp and Reyle, 1993), the interpretation of the factive ascription in (22) can be expressed by the Discourse Representation Structure (DRS) shown in (25) below⁷

The ascriptions with *agree* and *certain* in (23)-(24), though non-factive, would have identical DRS's, with trivial substitution of the verb denotations.

(25)

u, v, z, s
Alex(u)
Company (v)
File (z)
destroy (v, z, s) (w_o)
verify ($u, \lambda w$ [destroy (v, z, s)(w)])

In contrast, a belief ascription such as that in (18A), using a bridge verb, is interpreted semantically as just a relation between Alex and the proposition expressed by the complement clause. A DRS for (16A) is presented in (26).

⁶Cattell (1978) noticed that these non-factives pattern with factives in *wh*-extraction from their complements. See also Melvold (1991), Hegarty (1992), and Schulz (1999) for discussion of this class of predicates.

⁷Subordinate DRSs are abbreviated as formulas here to save space. For semantic representations using a situation variable, see Ginzburg (1995a,b), and, for similar structures with an event variable, (Higginbotham 1985, Higginbotham 1989).

(26)	u, v, z
	Alex (u)
	Company (v)
	File (z)
	believe ($u, \lambda w [\exists s [\text{destroy } (v, z, s)(w)]]$)

Of course, the ascription made by A in (18) could express a proposition which is already familiar to the hearer. The property distinguishing bridge verbs from the factive and other predicates discussed here is not that the content of the bridge verb complement **must** be unfamiliar, but only that it **can** be. Bridge verbs, unlike other predicates discussed here, do not assume the familiarity of the content of the complement.

Interrogatives pattern with factive complements with regard to the status of abstract entities mentioned by or within them. A naturally occurring example is shown in (27).

- (27) One common attribute of a scientist is an unusually acute sense of numbers and their implications.

A sense of numbers - why do I dwell on this observation? Perhaps **it's** because we who come from a background of engineering...(*American Scientist* 88:378)

- (28) A: Alex wonders whether the company destroyed the file.

B: **It's** not likely. The file contained no incriminating information.

B: **That's** not likely. The file contained no incriminating information. [it/that = that the company destroyed the file]

- (29) a. Max wonders who destroyed the file; **it** has impeded the investigation.

b. Max wonders who destroyed the file; **that** has impeded the investigation. [it/that = that someone destroyed the file]

The possibility of immediate subsequent reference with a personal pronoun in (28)-(29) follows from the presuppositional nature of questions. To simplify, within DRT, the *wonder*-ascription in (28A) should be represented with a DRS of the form shown in (30), where ϕ is an appropriate relation between Alex and the proposition p specified on the penultimate line of the DRS⁸

⁸To unsimplify, questions are, in fact, constrained not only by the formal semantic condition captured here, but by rich contextual conditions on what would count as a suitable answer to a question in a given context. See Ginzburg (1995a), Ginzburg (1995b), and Asher and Lascarides (1998). The important point, for present purposes, is that these accounts would incorporate, and add to, the presuppositional condition given here. The proposals sketched here would therefore be a part of an account given according to these richer theories of the interpretation of questions.

(30)

u, v, z, p
Alex (u)
Company (v)
File (z)
$p(w) = \lambda w \exists s [\text{destroy}(v, z, s)(w)]$
ϕ

Interpreted as in (30), the *wonder*-ascription in (28A) is a question about the proposition that the company destroyed the file. This should be the form of any semantic account of the *wonder*-ascription which captures the presuppositionality of the embedded question: the proposition that the company destroyed the file must be an established discourse entity prior to the utterance of (28A), or it must be accommodated in the sense of Heim (1982). The assertive content of (28A) should be captured in the last line of the DRS, ϕ . On one realization of ϕ , given in Hegarty (2001), (28A) asserts that Alex is in the state of wonder with respect to the proposition that p holds of the actual world, w_o .

Thus, the presuppositionality involved in the lexical structure of a factive (or related) predicate, and the semantic presuppositionality of embedded questions, are additional factors which can bring an entity into focus. In these cases, information structure has no bearing on the cognitive status of the clausally introduced entity.

6 Conclusion

In this paper, we addressed the fact that clausally introduced entities, immediately subsequent to their introduction into a discourse, are typically accessible to reference with a demonstrative pronoun, but not with the personal pronoun *it*. We found that this fact can be explained on the basis of the observation that such entities are typically activated, but not brought into focus, upon their introduction to a discourse. However, clausally introduced entities are, in fact, sometimes referenced with *it* immediately subsequent to their introduction. An examination of the discourse environments in which this is possible provides important insights into the various syntactic, semantic, and pragmatic factors that can boost the salience of an entity and bring it into focus.

We've shown that information structure, in the sense of a focus-ground bifurcation, is one such factor when an entity is mentioned with a bridge verb complement, but only in a way which is asymmetric, depending on whether the entity is mentioned within focal or non-focal material. When the complement is focal, there is no effect: the cognitive status of an entity expressed by a focal complement depends entirely on the referential givenness/newness (i.e. the cognitive status) of the entity. But when the complement is part of the ground (topic/theme), the entity is brought into focus.

In factive complements and embedded questions, the lexical nature of the embedding predicate and the semantic nature of the construction require an entity

mentioned with the subordinate clause to be treated as referentially given independently of the information-structure of the utterance. This suggests that the salience promoting effect of information structure is indirect. It is the referential givenness of the ground, i.e. the fact that topics are at least familiar, and not information structure per se, which contributes to bringing an entity into focus.

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