FUNCTIONAL COMPOSITIONALITY AND THE INTERACTION OF DISCOURSE CONSTRAINTS

BETTY J. BIRNER
Northern Illinois University

JEFFREY P. KAPLAN
San Diego State University

GREGORY WARD
Northwestern University

We argue for the existence of functionally complex constructions whose elements compositionally impose discourse-functional constraints on the use of the whole. In particular, we examine *th*-clefts (as in *That's John who wrote the book*), equatives with epistemic *would* and demonstrative subjects (as in *That would be John*), and simple equatives with demonstrative subjects (as in *That's John*). We show that, contra previous approaches, the latter two constructions need not be analyzed as truncated clefts. Rather, the properties that these constructions share with *th*-clefts can be straightforwardly accounted for as the sum of the constraints on their shared elements—that is, the equative construction, the demonstrative subject, and the presence of a contextually salient open proposition. The convergence of these elemental properties in each of these three constructions results in the possibility of the demonstrative being used to refer to the instantiation of the variable in the open proposition, which in turn predicts a complex of distributional behaviors shared by precisely the constructions that share these properties. Because these distributional behaviors can be straightforwardly explained in terms of this functional compositionality, the motivation for a truncated-cleft analysis disappears. These results support the view that not all functional properties must be learned on a construction-by-construction basis; instead, the discourse functions of an utterance are built up compositionally from those of its parts.*

1. INTRODUCTION. Research into functional constraints on syntactic constructions has often taken a construction-by-construction approach, examining the pragmatic constraints on the use of a single syntactic construction such as gapping (Levin & Prince 1986, inter alia) or on the use of a single lexical item such as the definite article (Birner & Ward 1994, Abbott 2004, inter alia). In other cases, researchers have sought broader generalizations across groups of constructions, as in studies of the use of preposing and postposing constructions to preserve the default ordering of given before new information within English sentences (Prince 1981, 1992, Birner & Ward 1998, inter alia). The focus of the current study is in the opposite direction—that is, on the basic components of a complex construction that give rise to its specific functional properties, and how these component functions interact to give rise to more complex sets of functional constraints on a given construction or family of constructions. In this article, we consider a set of constructions whose shared elemental properties give rise to a shared complex of pragmatic properties. The constructions we examine are *th*-clefts, equatives with epistemic *would* and demonstrative subjects, and what Hedberg (2000) and others have called TRUNCATED CLEFTS.

2. FUNCTIONAL COMPOSITIONALITY. In the form/function mapping that makes linguistic communication possible, presumably there are basic, elementary mappings, in which

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the form in question cannot be further broken down into smaller units with more basic functions. At the lexical level, the definite article is such a form, in that although it serves a specific discourse function (for discussion, see Birner & Ward 1994, Abbott 2004, inter alia), it cannot be divided into smaller units with more elemental functions of their own. The same indivisibility is presumably true of certain constructions involving an entire clause. Consider, for example, the gapping in 1.

(1) John brought the salad, and Mary the wine.

Here, the felicity of eliding the verb in the gapped clause depends on that clause being interpreted as if it had the same verb as in the antecedent clause. Although the construction is obviously made up of smaller components (i.e. a subject and direct object), no such smaller component is responsible for the requirement of a previously evoked, similarly structured proposition containing the same verb with different arguments. Rather, the mapping between the gapping construction and this discourse requirement seems to be elemental at the clausal level.

Other constructions, however, are functionally complex, in that they are composed of more elemental constructions, each of which imposes a distinct discourse-functional constraint on the use of the whole. Consider, for example, 2.

(2) There are two O-rings around the seal, and on about five, perhaps half a dozen STS flights, *on each flight there are six seal areas, three segments, three breaks in each of two solids*. (Challenger Corpus)

As described in Birner 1997, the italicized clause in 2 consists of a preposing (the preposed *on each flight*) in combination with the existential-*there* construction. Such sentences would appear, on the surface, to involve a reversal of arguments similar to that found in inversion, as shown in 3, which appears to differ from the construction in 2 only in the absence of *there*.

(3) . . . on each flight are six seal areas, three segments, three breaks in each of two solids.

Formal and functional similarities between locative PP inversion, as in 3, and PP preposing plus existential *there*, as in 2 above, have led a number of researchers to treat the two essentially as variants of a single construction (Erdmann 1976, Breivik 1981, Penhallurick 1984, Freeze 1992, inter alia). Birner and Ward (1993) show, however, that the two are in fact functionally distinct, while Birner (1997) shows that the pragmatic constraint on the use of the construction in 2, comprising PP preposing and existential *there*, is precisely the sum of the pragmatic constraints on the use of these two component constructions. That is, the preposed PP must represent discourse-old information, satisfying the constraint on preposing in general (Ward 1988, Prince 1992, Birner & Ward 1998), while the postcopular NP of the existential must represent hearer-new information, satisfying the constraint on the use of the existential (Prince 1992, Ward & Birner 1995). In 2, *each flight* represents inferrable, and therefore discourse-old, information (Birner 1994), while the seal areas and so forth are hearer-new. This set of constraints is distinct from the constraint on felicitous inversion, which requires that the preposed constituent represent information that is at least as familiar within the discourse as the postposed constituent (Birner 1994). What is most relevant for our purposes is the finding that, while inversion is a single-construction subject to a single discourse-functional constraint, PP preposing with existential *there* is a combination of two distinct constructions, each of whose discourse-functional constraints must be satisfied. In this sense, then, PP preposing with existential *there* is what we call a FUNCTIONALLY COMPLEX or FUNCTIONALLY COMPOSITIONAL construction—that is, one

whose discourse constraints are built up straightforwardly from those of the smaller constructions of which it is composed.

The notion that families of constructions may share properties that they inherit from more elemental constructions is not a new one. There are a number of studies in which families of syntactically related constructions are shown to have related pragmatic functions as well; Välimaa-Blum (1988), for example, correlates word order and pragmatic function across constructions in Finnish, and Janda and Joseph (1999) treat the modern Greek negator as a 'constellation' of forms with individual shapes and functions too diverse to be considered one form and too unified to be considered entirely different forms. Goldberg and Del Guidice (2005) argue that the formal properties of subject-auxiliary inversion are motivated by 'a family of closely related functions' seen in such apparently diverse utterance types as yes/no questions, initial negative adverbs, comparatives, and exclamatives (see also Fillmore 1999). More generally, work in construction grammar (Croft 2001, Fillmore et al. 2003, inter alia) deals with inheritance relations among families of grammatical constructions, with these constructions constituting the primitive units of which sentences are built, and the constructions themselves contributing meanings beyond the meanings of the individual words. (See, for example, Michaelis & Lambrecht 1996 on English exclamatives, Kay & Fillmore 1999 on 'What's X doing Y?', Goldberg & Jackendoff 2004 on resultatives, and Goldberg 1995 on several English constructions and inheritance relations in general.) In the case of PP preposing with existential *there*, the family resemblance is the result of both PP preposing and existential *there* each contributing its own discourse-functional constraint to the larger construction.

In this article, we consider another case of functional compositionality, one involving three constructions that have not previously been considered to constitute a natural class: *th*-clefts, equatives with epistemic *would*, and so-called truncated clefts (Hedberg 2000). We show that each is a functionally complex construction in that the discourse-functional constraints on its use are derived from the constraints on the use of its elements. In doing so, we show that otherwise unexplained similarities among the pragmatic properties of these constructions can be attributed to similarities in the elemental components of the constructions. This analysis allows us to account for previously unrecognized similarities between epistemic-*would* equatives and the two other constructions, while at the same time suggesting that the relationship that holds between truncated clefts and *th*-clefts is based on functional compositionality rather than syntactic derivation of the former from the latter.[1]

In what follows, we first describe each construction's syntactic components and basic pragmatic properties, after which we offer an analysis of the constructions' derived properties.

3. EPISTEMIC-WOULD EQUATIVES. In this section we consider a certain subtype of clause containing epistemic *would*, as exemplified in 4.

[1] The term 'functional compositionality' as we use it here it not to be confused with the notion of 'function composition' as used in formal semantics. What is meant here is that the discourse-functional properties of a complex structure are determined by the functional and semantic properties of its component parts, that is, that the meaning and use of linguistic expressions are compositional at not only the semantic but also the pragmatic level. Thus, we are referring here to 'functions' in the discourse-functional sense—that is, uses to which a given construction is conventionally put—and to how those functions can combine to derive larger functions in a compositional manner. While the similarity to the formal-semantics term is perhaps regrettable, we retain our use of 'functional compositionality' on the grounds that the meaning of the term itself is compositional, and therefore relatively transparent.

(4) a. Q: Can you tell us if you recognize this clothing?
A: *That would be our standard attire*, correct. (Simpson transcripts, 2/7)

b. Dad: Uh. . . Who's that boy hanging out in our front yard, Danae?
Danae: *That would be Jeffrey*, my not-so-secret admirer.
('Non Sequitur' comic, Universal Press Syndicate, 3/3/02)

c. Hi Bill, . . . I do have some answers for you. You asked about one person declaring all of the income on one property and one person taking all of the expenses. *The answer to that would be no*. (email, 11/14/2000)

Following Nuyts 2001, we take epistemic modality to mark the speaker's estimation of 'the likelihood that (some aspect of) a certain state of affairs is/has been/will be true (or false) in the context of the possible world under consideration' (2001:21–22). Thus, in each of the examples in 4, the speaker's use of *would* is epistemic in that it conveys his or her assessment of the truth of the proposition being expressed. More specifically, the use of *would* in each case conveys the speaker's high level of confidence in the truth of the proposition; that is, in each case the speaker commits to the truth of the proposition conveyed.

Epistemic uses of other modals similarly convey an assessment of the truth of the associated proposition, but the speaker's degree of commitment to the truth of that proposition will of course vary depending on the modal used. Compare, for example, 4b with the examples in 5.

(5) a. That must be Jeffrey.
b. That should be Jeffrey.
c. That could be Jeffrey.
d. That might be Jeffrey.

The use of any of the modals in 5 conveys a lesser degree of speaker commitment to the truth of the proposition 'That's Jeffrey' than the use of *would* does in 4b. For example, the use of *must* in 5a suggests only that the proposition being expressed represents the result of some kind of calculation or logical deduction (Stone 1994, Birner et al. 2003); thus, the speaker's confidence in the truth of the proposition is only as strong as the evidence for that proposition. If the boy in 4b turns out to be someone other than Jeffrey, the speaker's use of *would* would indicate a commitment to a false belief, whereas the use of *must* in 5a would indicate only an error in the speaker's reasoning process.[2]

Moreover, the felicitous use of epistemic *would* requires that an OPEN PROPOSITION (in the sense of Prince 1986) be contextually salient (i.e. evoked or inferrable) at the time of utterance (Birner et al. 2001). An open proposition, or OP, is a proposition that contains one or more unspecified elements, which are represented as variables. Corresponding to the utterances in 4, for example, are the OPs in 6.

(6) a. THE CLOTHING IS X.
b. THE BOY HANGING OUT IN THE FRONT YARD IS X.
c. THE ANSWER TO THE QUESTION IS X.

In each case, the OP in 6 is required to be contextually salient for the felicity of the use of the corresponding epistemic-*would* utterance in 4. Thus, for example, the question

[2] There is empirical support for our claim regarding the high degree of speaker commitment to the truth of a proposition associated with the use of epistemic *would*. Ward and colleagues (2007) report on the results of a psycholinguistic experiment in which subjects were significantly more likely to rate epistemic-*would* utterances (e.g. *That would be Chris*) as conveying certainty than they were the corresponding utterances with main verb BE alone (e.g. *That's Chris*).

in 4b gives rise to the salient issue of the identity of the boy in the front yard (i.e. the OP in 6b), which in turn licenses Danae's utterance in 4b. In each case, the epistemic-*would* utterance provides the instantiation of the variable in the OP, and this instantiation constitutes the focus of the utterance and consequently receives nuclear stress.

An examination of the other epistemic modals reveals that *would* is unique in requiring a contextually salient OP for felicity. Consider a context in which B is reading the newspaper in the living room when A enters holding an envelope, and interrupts B's reading by uttering 7.

(7) a. #This would be my new Visa card.
b. This should be my new Visa card.
c. This had better be my new Visa card.
d. This might be my new Visa card.
e. This could be my new Visa card.
f. This must be my new Visa card.
g. This will be my new Visa card.

Here, the OP 'THIS (ENVELOPE) IS X' is not salient in the context, given that B cannot be expected to be attending to the envelope. In such a context, the use of epistemic *would* is infelicitous, while the use of the other epistemic modals is felicitous and may serve to direct B's attention to the envelope in question. Notice, however, that in a context in which B has first asked *What's that envelope you're holding*?, the OP in question becomes salient and 7a accordingly becomes fully felicitous. Thus, epistemic *would*, unlike the other epistemic modals, requires an appropriate salient OP for felicity.

Structurally, the epistemic-*would* construction consists of four elements: the subject, the modal itself, the verb (the copula or one of a very small set of other verbs; see below), and the postverbal material. The defining element, of course, is the modal; all of the other elements may vary. For example, in our corpus of 246 naturally occurring tokens of epistemic *would* gleaned from both spoken and written sources, we found that 79% of them (194) had the pronominal demonstrative *that* as subject (as in 4a and 4b above); nonetheless, other subjects are also possible, as illustrated with the nondemonstrative subject in 4c.[3] Similarly, although by far the most common verb with epistemic *would* in the corpus is *be*, others are possible, as in 8.

(8) a. And that would bring us up to 2:02. (radio DJ, 3/22/04)
b. They are both a Flea Bitten Grey. That would mean the speckles! (email, 4/14/04)

Such verbs, however, are rare (representing only 2% (5/246) of the verbs in our corpus).

The epistemic-*would* construction that we are most concerned with in this article is also by far the most commonly attested variant in our corpus; this construction has the demonstrative *that* as its subject, followed by epistemic *would* and equative *be*, as in 4a and 4b.[4] However, in what follows, it will be important to remember that the choice

[3] Although the overwhelming majority of the examples with demonstrative subjects use the distal form (*that*), the proximal form (*this*) is also found, as in (i–ii).

(i) Hello, Mr. Gregory. This would be Bradley. (message left on voicemail, 1/9/2007)
(ii) We're standing in front of a large outbuilding in the yard. I can hear barking and yelping coming from inside. It's a terrible noise.
''This would be the kennel,'' he says.
(Carolyn Parkhurst, *The dogs of Babel*, Little, Brown, and Co., p. 172)

[4] Although equative constructions have traditionally been treated as equating two definite NPs, we have found that when the subject demonstrative pronominal is used to refer to the instantiation of a variable (as described below), postcopular constituents of other phrasal types can also stand in an equative relationship to this demonstrative. Consider the postcopular PP in (i).

of subject and verb is not limited to *that* and *be*, respectively. Rather, speakers make these choices for specific communicative purposes, and these choices have discourse-functional consequences.

4. CLEFTS. The literature on clefts has primarily focused on *it*-clefts (also known simply as 'clefts'), exemplified in 9a, and WH-clefts (also known as 'pseudoclefts'), exemplified in 9b, although others (Ball 1977, 1978, Hedberg 1990, inter alia) have also noted the existence of *th*-clefts, as in 9c–d.

(9) a. A: Well, has the cat discovered the hamsters yet?
B: The hamsters? Actually, *it's the dog that is enthralled with the hamsters*. (Switchboard Corpus)

b. A: How long do you cook the meatballs?
B: The meatballs you just, after you form them, fry them in a pan until they're browned on all sides and then drain off all the grease. Then *what I usually do is I freeze them*. (Switchboard Corpus)

c. NF: . . . And then, one morning, about three or four or five mornings before I was due to get out, I was lying in bed and someone, one of, one my fellow soldiers came by and shook my bed and said, Come on Fredzo, get up . . . and the Sergeant himself said, 'Leave him alone, he's too short'.
KF: Hmm.
NF: I mean, the, *that was the platoon sergeant that said that*. I call that a pretty good guy. (Hedberg 1990:Ch. 4, ex. 12)

d. A: The Secret Service did tell Kennedy they were receiving more credible death threats from Texas than usual and they recommended that he cancel that trip. Kennedy was convinced he would have needed Texas in the '64 election and chose to take his chances.
B: Lee—I was only kidding. Besides—do we really know *that was JFK that was shot* and not a stand in? Someone supposedly just saw JFK, Elvis and Bigfoot eating at Taco Bell in Horseheads, NY.
(http://www.netshrine.com/vbulletin2/showthread.php?t=532&goto=nextoldest,6/15/04)

Like epistemic *would*, felicitous use of a cleft typically requires that an OP be contextually salient at the time of utterance (Prince 1978, 1986). Thus, the *it*-cleft in 9a is felicitous only in a context in which the notion of something or someone being interested in the hamsters to some degree (i.e. the OP 'X IS INTERESTED IN THE HAMSTERS') is salient,[5] whereas the canonical word order variant—*the dog is enthralled with the hamsters*—has no such constraint on its use and could, for example, be used in a general conversation about pets and their idiosyncrasies. Similarly, the WH-cleft in 9b is felicitous only when the OP 'I USUALLY DO X' is salient, and this is clearly the case

(i) A: Where is John now?
B: That would be in jail.

Here, the relationship between the demonstrative and the postcopular material is the same as that between the subject and the predicate nominal in a traditional equative. For this reason, we use the term 'equative' for these cases as well.

[5] See Prince 1986 and Birner & Ward 1998 for the details of how the OP is constructed, and in particular the possible relations that are licensed between such elements as (in this case) 'enthralled with' and 'interested in'.

in the context of the speaker explaining how he or she makes meatballs; thus, the OP need not be explicitly evoked in the prior discourse as long as it can be assumed to be salient in context. In 9c the OP 'X SAID THAT' is clearly salient, and again, the italicized utterance would not be felicitous in the absence of this OP. Finally, in 9d the OP 'X WAS SHOT' is clearly salient in the context of death threats leading up to JFK's visit to Texas. In each of the examples in 9, the postcopular constituent (*the dog* in 9a, *I freeze them* in 9b, *the platoon sergeant* in 9c, and *JFK* in 9d) instantiates the variable in the OP, constitutes the focus of the utterance, and receives nuclear stress.

There is one subtype of *it*-cleft in which the material in the relative clause need not be salient prior to the utterance of the cleft, which Prince (1978) calls an 'informative-presupposition *it*-cleft'. This type is illustrated in 10.

(10) It was 200 years ago this month that Lewis and Clark reached the Pacific Ocean. (*Chicago Tribune*, 11/23/05)

Felicitous use of 10 does not require that the OP 'LEWIS AND CLARK REACHED THE PACIFIC OCEAN AT X TIME' be salient at the time of utterance; indeed, 10 is the first sentence of a newspaper article, and it could also felicitously begin a history lecture or a history textbook (in the latter case, replacing *200 years ago this month* with *in November of 1805*). Instead, this type of *it*-cleft takes advantage of the cleft's basic function of presupposing an open proposition in order to present the material in the relative clause as presupposed and uncontroversial (Prince 1978). This use has no parallel among the other two types of clefts.[6] There is, however, one class of *th*-cleft that does not require a salient OP—those cases in which the demonstrative is used as a spatial deictic, as in 11.

(11) Hey, that's your cousin who's sitting on the curb, isn't it?

Such an utterance is felicitous even in the absence of a salient OP. We return to this point below.

Structurally, all three types of clefts are equative constructions. The *th*-cleft parallels the *it*-cleft in structure, in that the focused constituent precedes the relative clause.[7] Functionally, however, it more closely parallels the WH-cleft, in that it cannot be felicitously used with an 'informative-presupposition' interpretation (as in 10). Thus, replacing *it* in 10 with *that* (i.e. *That was 200 years ago this month that Lewis and Clark reached the Pacific Ocean*) results in an utterance that is felicitous only when the OP 'LEWIS AND CLARK REACHED THE PACIFIC OCEAN AT X TIME' has already been evoked, for example, when someone has just asked what year Lewis and Clark reached the Pacific. In a context in which there is no salient OP (e.g. the first sentence of a textbook), the *th*-cleft variant is infelicitous.[8]

[6] It's true that some types of discourse permit strategic violations of discourse constraints for stylistic effect; thus, a novel may begin *He turned the knob and entered the room*, without prior introduction of any of these entities (and particularly violating the usual constraint on pronoun use, that is, that it represent salient, topical information). However, newspaper articles and textbooks generally do not lend themselves to this sort of *in medias res* beginning.

[7] Although there are important differences between the presupposed constituent in a cleft and other relative clauses, we follow Ward et al. 2002 in using the term 'relative clause' for both.

[8] Both the syntax and pragmatics of the various types of clefts are complex in ways we have barely touched on here. For example, we ignore the additional pragmatic differences between WH-clefts and *it*-clefts, such as the latter's greater felicity in contrastive contexts.

(i) What I'd like is a brandy.
(ii) It's a brandy that I'd like.

Whereas the felicity of the WH-cleft in (i) requires only the salience of the OP 'I'D LIKE X' (where X is a

5. TRUNCATED CLEFTS. In addition to full *it*-clefts and *th*-clefts, there are so-called 'reduced clefts' (Büring 1998) or 'truncated clefts' (Hedberg 2000, Ward et al. 2002, inter alia), that is, clauses that appear to be structurally and functionally like clefts, only without a relative clause, as in 12.

(12) a. Tonight Keith and I were home hanging out in the apartment, eating our dinner and trying to watch this incomprehensible subtitled Indian film I brought home from the video store, when a knock came at the door. We were expecting a friend to drop by with some clothes for Zeke, so we figured *it was her*.
('My life in 12-point font', http://www.12pointfont.com/02/120702.html)

b. A: Me? I never wallow. I suffer in silence.
B: No, *that's Christine*. (movie *Must Love Dogs*)

The italicized clause in 12a corresponds to the full *it*-cleft variant *It was her who had knocked*, while B's response in 12b corresponds to the full *th*-cleft variant *That's Christine who suffers in silence*.

On the face of it, such clauses have the same structure as a simple equative, as in 13.

(13) A: Who's that woman over there?
B1: *It's Christine*.
B2: *That's Christine*.

That is, in both 12 and 13 we have a pronominal element, a copula, and a postcopular focused constituent. Thus, 12a,b are subject to two distinct possible analyses, one in which they are truncated clefts, as suggested by Büring (1998) and Hedberg (2000), and one in which they are simple equatives.[9] Given the independent existence of simple equatives, the burden of proof lies with the analysis of 12a,b as clefts. In fact, in what follows we argue that the functional resemblances that might motivate an analysis of these cases as truncated clefts can be explained on independent grounds, thus undermining the cleft analysis.

Notice that pragmatically, truncated clefts—like full clefts—typically require the presence of a contextually salient open proposition. However, in this case, the OP is required not for felicitous use of the sentence in general, but rather in order for the construction to be interpreted as cleft-like—that is, to have a felicitous full-cleft paraphrase. That is, given the structural similarity of the clauses in 12 to those in 13, it is the context—and specifically, the presence or absence of the appropriate OP—that determines whether an utterance like those in 13 is taken as cleft-like or as a simple equative. Thus, contrast 12b with 14.

(14) [In coffee shop, to companion reading a newspaper]
Hey, *that's Christine*!

Whereas in 12b A's question gives rise to the OP 'X SUFFERS IN SILENCE' and thus licenses an interpretation of B's utterance as equivalent to 'It's Christine who suffers in silence', in 14 the most natural reading, given the stipulated context, is not 'That's

drink), the felicity of the *it*-cleft in (ii) requires additionally a contrast with some other salient drink; thus (i), unlike (ii), is felicitous in the context of a partygoer being asked what she'd like to drink, whereas both are felicitous if the partygoer has been offered a gin and tonic.

[9] Büring argues for a reduced-cleft analysis only of clauses with *it* as subject; he raises but leaves unresolved the status of similar clauses with *that* in subject position, as in 12b. Stating that such constructions might be termed 'demonstrative expletive constructions', he goes on to observe that 'the notion of a demonstrative expletive does not make any sense'. In our account, the demonstrative is in fact referential, not expletive.

Christine who that woman is' but rather 'That woman is Christine', and on this interpretation the utterance is a simple equative. Thus, the sentence *That's Christine* is ambiguous between a simple equative and a truncated-cleft reading, with the latter requiring the presence of an appropriate salient OP.

In what follows, we discuss the ambiguity of the subject demonstrative in greater depth. We furthermore argue that the pragmatic properties of so-called truncated clefts fall out naturally from those of their components, and more specifically that any equative with demonstrative *that* as its subject will, in the context of a sufficiently salient OP, permit a cleft-like reading and show a range of cleft-like properties, due to having the same elemental components (and thus the same basic pragmatic properties) as full clefts.

6. Commonalities among the constructions. Having taken a brief look at the three constructions in question—epistemic-*would* equatives, clefts, and certain equatives that have been described as truncated clefts—we are now in a position to investigate a set of basic properties shared by a subset of each of the three construction types. This shared set of properties consists of a demonstrative subject, equative syntax and semantics, and a contextually salient open proposition for which the postcopular constituent instantiates the focus. As we have seen above, not all instances of the construction types in question exhibit all of these properties: There are epistemic-*would* sentences with nondemonstrative subjects (as in 4c) or noncopular verbs (as in 8), there are clefts with nondemonstrative subjects (as in 9a), and there are equatives that neither have a demonstrative subject nor require a salient OP (as in, for example, *He's Mr. Lachman*). However, within each construction type, there is a subset that is characterized by a demonstrative subject, equative syntax and semantics, and the appropriate contextually salient OP, as illustrated in 15.

(15) [context: a knock at the front door]
  a. That would be Christine.
  b. That's Christine who's at the door.
  c. That's Christine.

Example 15a is a subtype of the epistemic-*would* construction that, following our previous work (Birner, Kaplan, & Ward 2001, 2003; Ward, Birner, & Kaplan 2003; Ward, Kaplan, & Birner 2007), we are calling 'TWBX', in view of the fact that it takes the form *that would be X*, where the instantiation of X is the focus of the utterance. The construction in 15b is what, following Ball (1977, 1978), we are calling a *th*-cleft; these are characterized by a demonstrative subject, an equative, a postcopular constituent instantiating the variable of the OP, and a relative clause. Finally, the construction in 15c is what we call a *th*-equative. Like the *th*-cleft, it has a demonstrative subject, an equative, and a postcopular constituent; unlike the *th*-cleft, however, it lacks a relative clause. Moreover, like *th*-clefts, the *th*-equative construction does not require an OP in contexts of spatial deixis, as illustrated in 14 above. As we show below, only when the appropriate OP is salient do the *th*-cleft and *th*-equative constructions take on a particular set of pragmatic properties that are shared with TWBX.

The notion that clauses like that in 15c are equatives at all is not uncontroversial. Higgins (1979) distinguishes four types of copular clause—predicational, specificational, identity (what we are calling 'equative'), and identificational—with the 'identificational' category including both *th*-equatives (*that's Christine*) and what Mikkelsen (2005) calls 'demonstrative equatives' (*that woman is Christine*). Mikkelsen eliminates the identificational category, taking *th*-equatives (which she terms 'truncated clefts')

to be specificational—hence not equatives at all—and demonstrative equatives to be equatives proper. We maintain that Higgins was right to categorize the two together; however, it is our contention that both types belong in the equative class. We adopt Mikkelsen's classification scheme, in which predicationals have subjects of type <e> and complements of type <e,t>, specificationals have subjects of type <e,t> and complements of type <e>, and equatives have both subjects and complements of type <e>. Because, as we argue below, the subject of *That's Christine* is referential, that is, of type <e> (and so is the complement, uncontroversially), the clause is equative rather than specificational.

Whether clauses such as that in 15c are correctly classed as specificational or equative, then, hinges entirely on whether the subject demonstrative pronoun is of type <e,t>, as Mikkelsen maintains, or of type <e>, as we maintain—that is, whether it denotes a property or an entity. For Mikkelsen, the demonstrative pronoun in 15c must be property-denoting, since for her demonstrative pronouns in general are disallowed for human referents, as shown in 16.

(16) [pointing to previously unnoticed person]
  a. #Christine is that!
  b. #That's wearing too much makeup.
  c. #I talked to that yesterday.

Mikkelsen is able to maintain a general prohibition against the use of demonstrative pronouns for human referents by taking the demonstrative in 15c to be property-denoting, that is, of type <e,t>. However, notice that this account leaves no explanation of the infelicity of 16a. That is, if the demonstrative in 15c is property-denoting, presumably the demonstrative in 16a is as well, and there is then no explanation for its infelicity. Given the clear difference in felicity between 15c and 16a, we are left with a choice between (i) maintaining that the prohibition against the use of demonstrative pronouns for human referents is absolute and that the demonstrative in 15c is property-denoting, and (ii) arguing that the prohibition against demonstrative pronouns in reference to humans simply does not hold in the case of equative subjects. The first solution leaves us with the problem of explaining why the demonstrative is infelicitous in 16a: If we want to say that the demonstrative here, like that in 15c, is property-denoting, we need to stipulate what further constraint prohibits the use of this property-denoting *that* in the context of 16a; if, instead, we want to say that the demonstrative in 16a is referential, we are left with the task of explaining (in a noncircular way) why it is that the use of the demonstrative in subject position in 15c is property-denoting while the otherwise identical complement used in 16a is referential. The simplest course, we argue (following Maclaran 1982, inter alia), is to take the route in (ii)—that is, to simply note that, for unclear reasons, the prohibition against the use of demonstrative pronouns for human referents is relaxed in the case of equative subjects. The subject of a *th*-equative, therefore, is most straightforwardly analyzed as referential; hence, within Mikkelsen's categorization system, these clauses (along with TWBX and *th*-clefts) are equative.

All three constructions, then, share the formal features of the demonstrative subject and the equative. And it is the combination of the demonstrative, the equative, and the OP that gives rise to the complex of pragmatic behaviors that we consider next.

7. AN ANALYSIS OF TWBX. A speaker is motivated to use TWBX by the simultaneous presence of three communicative purposes: to convey commitment to the truth of the proposition expressed (via epistemic *would*), to mark the postcopular constituent as instantiating the focus in a salient OP (also via epistemic *would*), and to equate this

postcopular focus with either some salient discourse entity or simply with the variable itself (via the demonstrative subject and the equative), as we demonstrate below.[10]

As noted above, an epistemic modal is one that marks the speaker's assessment of the likelihood of some state of affairs holding in some possible world, with *would* marking a higher confidence level than other epistemic modals. In addition, epistemic *would* requires a contextually salient OP. As shown above in §3, *would* is unique among the epistemic modals in imposing this requirement. Moreover, this requirement is specific to the modal itself, not to the TWBX construction (Ward et al. 2003); that is, all clauses with epistemic *would*—with or without a copula and with or without a pronominal subject—share the OP requirement, as illustrated in 17.

(17) a. They are both a Flea Bitten Grey. That would mean the speckles! [= 8b]

b. Recently I saw a photo of a protestor at the Federal Building in Westwood carrying a sign that read, 'CIA, what assets are we going to war for?' I believe *those assets would be life, liberty, and the pursuit of happiness*.
(letter to the editor, *LA Times*, 10/13/01)

Given that 'flea bitten grey' is not a commonly known term, its mention in the first sentence of 17a gives rise to the OP 'FLEA BITTEN GREY MEANS X'. In 17b, in the context of the question addressed to the CIA, the OP 'THE ASSETS WE ARE GOING TO WAR FOR ARE X' is clearly salient, and the italicized clause serves to instantiate the variable in the OP. In the absence of this salient OP, the utterance would be infelicitous.

Thus, the OP requirement is inextricably tied to the use of epistemic *would*, while the other two elements of TWBX—the demonstrative subject and the equative—are not. When all three elements cooccur, however, their cooccurrence gives rise to an interesting state of affairs: the combination of a contextually salient OP and an equative produces the possibility of using a demonstrative subject to refer deictically to the instantiation of the variable of the OP, and equating it, via the equative, with the postcopular focus. This is illustrated in 18.

(18) a. A [holding cup]: Whose is this?
B: *That would be my son*. My youngest son, to be exact.
(conversation, 2/4/01)
OP: 'THIS CUP BELONGS TO X'

b. GW: What is the per minute charge to Italy?
Operator: Do you have the one-rate plan?
GW: I'm not sure—can I find out through you?
Operator: No, *that would be . . . 1-800-466-3728*.
(conversation with AT&T operator, 6/23/01)
OP: 'YOU CAN FIND OUT THROUGH X'

c. Villager [in reference to an ogre]: He'll grind your bones for his bread!
Shrek: Actually, *that would be a giant*. (movie *Shrek*)
OP: 'THE CREATURE THAT GRINDS YOUR BONES FOR HIS BREAD IS X'

d. A: The pot's light.
B: *That would be me*. [tosses in a chip] (poker game, 1/31/03)
OP: 'THE PERSON WHO FAILED TO ANTE IS X'

[10] The TWBX construction is to be distinguished from utterances like *That would be a shame*, which on their conditional reading neither contain epistemic *would* nor are equative in meaning.

e. A: These Bocaburgers have not an ounce of fat in 'em.
B: *That would be the soy.* (conversation, 6/1/04)
OP: 'NOT HAVING AN OUNCE OF FAT IN THEM IS DUE TO X'

In each of these examples, the most plausible referent for the demonstrative is the instantiation of the variable in the OP. In 18a, for example, the prior discourse provides no apparent referent for the demonstrative other than that provided by the OP—that is, the person to whom the cup belongs. Similarly, in 18b, *that* is not being used to refer to any particular individual or entity that has been explicitly evoked, but rather to the as-yet-unspecified means for obtaining the desired information. In 18c, reference has been made to an ogre, but the referent of *that* is not the ogre himself but rather a different instantiation for the variable—that is, whatever creature it is that in fact does traditionally grind one's bones for his bread. In 18d, the utterance *The pot's light* indicates that there are fewer antes in the pot than there are players in the game; hence one may infer that some player has failed to ante. This gives rise to the OP 'THE PERSON WHO FAILED TO ANTE IS X', and the demonstrative in *That would be me* is being used to refer to the instantiation of this variable; the speaker here, in effect acknowledging the salience of this OP, makes the equative assertion 'X is me'. Finally, in 18e, the mention of the burgers' leanness makes salient the cause of this leanness, which corresponds to the OP variable instantiated by *the soy* in B's response.[11]

The salient OP introduces a new entity into the developing discourse model, corresponding to the unknown entity that will satisfy the description provided in the OP. In 18a, it is the person to whom the cup belongs. In 18b it is the entity through which callers can find out whether they have the 'one-rate' plan. In 18c it is whatever creature it is that grinds your bones for his bread. In 18d it is the person who failed to ante. In 18e it is whatever it may be that is responsible for the Bocaburgers not having an ounce of fat in them. Given the presence of this entity in the discourse model, the demonstrative *that* can be used deictically to refer to it, as a type of discourse deixis. It is well known that discourse deixis can involve reference to actual expressions in a discourse (Lyons 1977, Levinson 1983, Webber 1988), as in 19.

(19) a. I bet you haven't heard *this* story. (Levinson 1983:85, ex. 88)
b. *That* was the funniest story I've ever heard. (Levinson 1983:85, ex. 89)

Speakers can also refer to abstract entities in a discourse model, including elements of the discourse, such as propositions and speech acts, as in 20.

(20) A: I've never seen him.
B: *That's* a lie. (Lyons 1977:668, cited in Levinson 1983:87)

[11] We have seen above (in 15c and 16a) that the constraint against using demonstratives for human referents in nonsubject position results in certain equatives not being reversible (compare *That's Christine* with *#Christine is that*). Cases in which the demonstrative is used to refer to the instantiation of the variable of an OP are also typically unable to be felicitously reversed in context; that is, there is a marked difference in acceptability between (i) and (ii).

(i) Q: What are we having for dinner?
A: That would be pizza.
(ii) Q: What are we having for dinner?
A: #Pizza would be that.

Given that the relevant OP is necessarily salient, that fact could explain why it occurs obligatorily in subject, or topic, position rather than in predicate, or focus, position. That is, given that the two positions in an equative, subject and predicate, will generally align with topic and focus positions, respectively, the variable will align with the topic, that is, subject, position, since it's part of a salient OP. We thank *Language* associate editor Laura Michaelis for bringing this possibility to our attention.

This 'impure textual deixis' (Lyons 1977:670) carried out by Speaker B's *that* is a reference to the speech act carried out by speaker A, which is an entity in the discourse model. Open propositions are also abstract entities in a discourse model, and they themselves introduce entities into the discourse model that can be referred to deictically.[12]

This ability to use a demonstrative subject to refer to the instantiation of the OP variable gives rise to three predictions, which we discuss in turn. First, this account predicts that examples such as those in 18 will be systematically ambiguous between the reading on which the demonstrative is used to refer to the instantiation of the variable and a reading on which it either takes some previously evoked entity as its referent or has deictic reference to some entity in the world. As usual, context will generally disambiguate. Thus, the *that* of *That would be my son* in 18a could, in a context in which the son in question has just entered the room, be taken deictically. Not all contexts, however, disambiguate; in a context that provides a plausible discourse referent, for example, the demonstrative may remain ambiguous.

(21) a. [King dips his finger in a bowl held by a servant and then licks the food off his finger and proclaims it delicious.]
King: What do you call this dish?
Servant: *That would be the dog's breakfast*. (movie *Shrek 2*)
OP: 'YOU CALL THIS DISH X'

b. A: I'm looking for the name of a magician. He works in Hawaii and just finished a lecture tour in the US and Canada. One of the routines in his lecture included a display of a regular size penny, then using a magnifying glass the penny would get bigger and bigger up to 3 inches. Who is this magician?
B: *That would be Carl Andrews*, and the trick you are referring to is Gregory Wilson's Dishonest Abe. Mr. Andrews's handling is streamlined for table-hopping. (electronic mailing list, 9/8/00)
OP: THIS MAGICIAN IS X'

In 21a, the demonstrative *that* in the italicized clause is referentially ambiguous: It can be used to refer to the instantiation of the variable in the salient OP 'YOU CALL THIS DISH X' or to the salient dish. In the first case, TWBX provides the name of the dish (and thus is paraphrasable as *We call this dish the dog's breakfast*), whereas in the second it provides the identity of the discourse entity evoked by the NP *this dish* (and thus is paraphrasable as *That dish is the dog's breakfast*). In 21b, the demonstrative is ambiguous in exactly the same way: its referent can be either the instantiation of the variable in the salient OP 'THIS MAGICIAN IS X', with the italicized clause then providing the identity of X, or the referent of the phrase *this magician*, with the italicized clause then providing the identity of the magician. In this case, the difference is more subtle, because the OP is itself an equative; hence, since X and *this magician* are equated in the OP, the difference in meaning between the two readings is minimal.

The second property that arises from the possibility of demonstrative reference to the instantiation of the OP variable is an apparent number disagreement. Consider the examples in 22.

[12] This account is similar in spirit, if not in detail, to that of Mikkelsen (2005), who as noted above takes the demonstrative subject of a *th*-cleft to denote a property. In our account, the demonstrative subject in each of the three constructions under discussion is referential, with the OP providing the properties ascribed to the referent.

(22) a. One of the best mulches is composted leaves, so good for the garden, the flower bed, and a wonderful amendment to the soil. Also, here's hoping you won't burn your leaves, wasting them, despite the fact that burning them is illegal in most Illinois counties—*that would be the populated ones*, like Cook, DuPage, Lake, e.g. (email, 4/24/01)
OP: 'THE ILLINOIS COUNTIES IN WHICH BURNING LEAVES IS ILLEGAL ARE X'

b. No, I'm sorry, but I must disagree with the observation that cats are energy sinks. *That would be children under the age of . . . say 12*. (email, 06/06/01)
OP: 'X ARE ENERGY SINKS' [i.e. 'X ARE THINGS THAT DRAIN YOUR ENERGY']

c. By the way, I heard your names (*that would be you and Andy*) on NPR yesterday . . . happy anniversary! (email, 6/26/02)
OP: 'I HEARD THE NAMES OF X'

In each of these examples, the demonstrative's only plausible antecedent in the prior discourse is plural—*most Illinois counties* in 22a, *energy sinks* in 22b, and *your names* in 22c—and as would be expected, the postcopular NP in each case is also plural. However, instead of the plural distal demonstrative *those*, in each case in 22 the demonstrative appears in the singular. The reason these examples are acceptable seems to be that the demonstrative is not, in fact, being used to refer to the plural entity evoked in the prior discourse, but rather to the (singular) discourse entity that instantiates the variable in the OP.[13] For example, associated with the TWBX utterance in 22a is the OP 'THE ILLINOIS COUNTIES IN WHICH BURNING LEAVES IS ILLEGAL ARE X', where X represents some set of Illinois counties. The utterance with epistemic *would*, then, instantiates the variable, equating X with the set of populated counties. Similarly, in 22b, the OP is 'X ARE ENERGY SINKS', and the proposition conveyed by the utterance is 'X = children under the age of 12'; and in 22c, the OP is 'I HEARD THE NAMES OF X', and the utterance conveys 'X = you and Andy'. Since it is a singular variable that is being instantiated (regardless of the cardinality of its instantiation), the singular demonstrative is appropriate. Notice also that selection of a singular or plural demonstrative will disambiguate what might otherwise have been a referential ambiguity of the sort described above. Consider 23.

(23) The show started on ABC as Two Guys, A Girl And A Pizza Place. The show centered on three young characters just starting out in life—*that would be the two guys and a girl*. (http://www.poobala.com/twoguysandagirl.html)
OP: 'THE THREE YOUNG CHARACTERS JUST STARTING OUT IN LIFE ARE X'

Here, the selection of the demonstrative *that* forces a reading on which the demonstrative takes the instantiation of the variable as its referent. If *that* is replaced with *those*, however, the resulting utterance—*those would be the two guys and a girl*—forces a

[13] An referee argues that since a variable in an OP is neither a linguistic expression nor an object in the real world, there is no prediction about what number a coreferential pronoun would bear. But singular is the default and unmarked number for something unknown: WH-words in questions take singular verb agreement, even when a plurality is the likely instantiation. Consider, for example, (i)–(iii).

(i) Who is coming to the party?
(ii) Who is on the committee?
(iii) What lives in large underground colonies and eats wood? (Termites.)

In all of these examples, the singular is strongly preferred, if not required. Making the plausible assumption that an OP variable instantiation is understood as singular allows a straightforward account of singular *that* in examples like 22 (and 23 below).

reading on which the demonstrative takes as its antecedent the constituent *three young characters just starting out in life*. Thus, an apparent number disagreement that would be otherwise unexplained falls out naturally from an account that acknowledges the possibility of the demonstrative being used to refer to the instantiation of the OP's variable.

The third otherwise puzzling property that can be explained in terms of demonstrative reference to the variable is the possibility of an apparent disagreement in tense. Notice that when TWBX is used in reference to an event in the past, this past time reference may or may not be reflected in the verb complex.[14]

(24) a. 'Where'd you get the new shingles? They're a perfect match'.
He examined the shingles in his hands, as if noticing this for the first time, and then called back, 'Well, they ought to be, they're all from the same lot. I bought two hundred extras when I put this roof on'.
'When was that'? I asked.
He looked up at the clouds. I don't know whether he was divining the weather or the past. 'Right after the war', he said. '*That would have been forty-six*'. (Barbara Kingsolver, *Animal dreams*, Harper Collins, 1990, p. 275)
OP: 'I PUT THIS ROOF ON AT TIME X'

b. Sabrina: Do you remember a rainy afternoon we spent together? My father had driven your mother and David into town for a music lesson.
Linus Larrabee: How old was he?
S: I don't know . . . Fourteen, fifteen.
L: *That would be the oboe*. (movie *Sabrina*)
OP: 'DAVID WAS TAKING LESSONS IN X AT THAT TIME'

In 24a, the demonstrative in the final clause is coreferential with the earlier demonstrative *that*; both are used to refer to the time when the roof was put on. Because the referent is a past time, this is realized in the verb complex via *have been*. In 24b, however, despite the fact that the speakers are discussing a past-time event, the final clause contains *be* rather than *have been*.

The explanation mirrors the explanation given above for the apparent number mismatch. Because the demonstrative can either take as its antecedent a previously evoked constituent or be used to refer to the instantiation of the OP variable, the clause as a whole can be taken to be making an assertion either about the past event or about the present instantiation of the variable. That is to say, in 24a the use of *have been* indicates that the antecedent of *that* is *when I put this roof on* and that the entire clause may be interpreted as '(the time) when I put this roof on was forty-six', or, more simply, 'I put this roof on in forty-six'. In 24b, on the other hand, the use of simple present-tense *be* indicates that the clause is describing a present-tense occurrence, specifically the instantiation of the variable. Thus, the demonstrative in 24b is being used to refer to the instantiation of the variable in the salient OP 'DAVID WAS TAKING LESSONS IN X AT THAT TIME', and the entire clause may be interpreted as 'X is the oboe'.

Notice that 24a is equally acceptable with *be* replacing *have been*.

(25) A: When did you put this roof on?
B: *That would be 1946.*

[14] We also were able to find many examples of temporal mismatches for *it*-clefts, such as that given in (i).

(i) It is in 1977 that both Atari and Kraftwerk made their first true strides towards electronifying their fields. (http://www.fakejazz.com/reviews/2002/nanoloop.shtml)

In this case, *that* is interpreted as having as its referent the instantiation of the variable in the OP 'I PUT THIS ROOF ON AT TIME X', and B's utterance serves to instantiate the variable. Since this instantiation occurs at the time of utterance, the present tense is felicitous.

8. AN ANALYSIS OF *th*-CLEFTS. Like TWBX, clefts have the form and meaning of an equative, and as with TWBX, the combination of a salient OP and the equative gives rise to the possibility of using a demonstrative subject to refer to the instantiation of the OP variable, which is then equated with the postcopular constituent. For example, consider 26.

(26) A: The KKK is consistently hateful.
B: I thought they were working on their kinder, gentler image—kind of like compassionate hatred.
C: . . . *[T]hat's George Bush who is practicing compassionate hatred*.
(http://www.majorityreportradio.com/weblog/archives/001292.php)
OP: 'THE ONE PRACTICING COMPASSIONATE HATRED IS X'

In 26, the demonstrative doesn't take a previously evoked constituent as its antecedent; rather, it is being used to refer to the instantiation of the variable in the OP 'THE ONE PRACTICING COMPASSIONATE HATRED IS X'. Notice that while the *it* of an *it*-cleft has generally been viewed as nonreferential (but see Hedberg 2000 for an alternative view), the demonstrative in a *th*-cleft is clearly referential.

Because the demonstrative *that* may be used to refer to the instantiation of the variable, *th*-clefts with *that* exhibit the same three properties that we saw above with TWBX, namely ambiguity, apparent number disagreement, and apparent tense disagreement. For example, 27 below illustrates the same sort of ambiguity seen above with TWBX.

(27) A: Who's the one practicing compassionate hatred?
B: *That's George Bush who is practicing compassionate hatred*.
OP: 'THE ONE PRACTICING COMPASSIONATE HATRED IS X'

Here, *that* can be interpreted two ways: either it takes the instantiation of the variable in the OP as its referent, as in 26 above, or it takes as its antecedent *the one practicing compassionate hatred* from A's utterance. However, this difference is again very subtle, because (as with the TWBX in 21b above) the OP 'THE ONE PRACTICING COMPASSIONATE HATRED IS X' is itself an equative. Since the OP equates the instantiation of the variable and the person in question, the choice between one or the other as the interpretation of the demonstrative makes very little difference in meaning. To put it another way, B's utterance in 27 equates *that* with *George Bush*; since the salient OP already equates the variable and the one practicing compassionate hatred, it matters very little which of these is being equated with George Bush. Thus, either choice results in the same three-way equation of the definite description, the proper name, and the demonstrative.

Similarly, the use of the demonstrative to refer to the instantiation of the variable results in the same sort of apparent number disagreement in *th*-clefts that we saw above for TWBX. For example, consider 28.

(28) A: Is it true that the officials who are resigning are the President and the CEO?
B: No, *that's the top three members of the Board of Directors who are resigning*.
OP: 'THE OFFICIALS WHO ARE RESIGNING ARE X'

Here, the demonstrative is singular (as is the copula, in agreement with the demonstra-

tive), yet the postcopular NP is plural. Again, as with TWBX, this result is unsurprising under an account in which the demonstrative takes the instantiation of the OP variable as its referent. Because this variable is singular, we expect the demonstrative to be singular as well, as it is here.

Notice that a plural demonstrative would also be acceptable in this context:

(29) A: Is it true that the officials who are resigning are the President and the CEO?
B: No, *those are the top three members of the Board of Directors who are resigning*.

Here, the demonstrative is not being used to refer to the instantiation of the variable in the OP, but rather to the officials who are resigning. This provides further evidence for the ambiguity discussed above, since, as in 23 above, the choice of a singular vs. plural demonstrative in 28–29 again determines whether the demonstrative is interpreted as being used to refer to the instantiation of the (singular) variable or to the referent of the plural NP.[15]

We also see in *th*-clefts the same sort of apparent tense disagreement that we saw above with TWBX. That is, because the OP is being instantiated at the time of utterance, when the demonstrative is used to refer to the instantiation of the variable and the cleft serves to equate this discourse model entity with the postcopular constituent, the main verb can be in the simple present. Thus, corresponding to the present-tense TWBX in 25 above is the *th*-cleft in 30.

(30) A: When did you put this roof on?
B: Let's see . . . *that's 1946 that I put this roof on*.
OP: 'I PUT THIS ROOF ON AT TIME X'

Here, the demonstrative *that* takes as its referent the instantiation of the variable in the OP 'I PUT THIS ROOF ON AT TIME X', and the cleft serves to convey that the instantiation of X = 1946. Since this instantiation is taking place at the present time, the equative appears in the present tense. Notice, however, that the past tense is also acceptable.

(31) A: When did you put this roof on?
B: Let's see . . . *that was 1946 that I put this roof on*.

Here, the past-tense copula indicates that the cleft is not conveying a present-time instantiation of the variable, but rather is indicating the past time at which the roof was put on. Because this event is in the past, the use of the past tense is appropriate. Again, the choice of tense indicates the intended interpretation of the demonstrative in the *th*-cleft: in the case of a present-tense copula, the demonstrative is interpreted as taking the instantiation of the variable as its referent, while in the case of a past-tense copula, the demonstrative is interpreted as taking *when* (or, perhaps, *when . . . you put this roof on*) as its antecedent.

Thus, we see that *th*-clefts exhibit the same three properties (ambiguity, apparent number disagreement, and apparent tense disagreement) seen above for TWBX, and

[15] There is another, irrelevant set of readings for the italicized sentence in 29 in which it is not a cleft but rather a case of a deictic *those* and either a restrictive or a nonrestrictive relative clause. On the restrictive-relative-clause reading, the interpretation would be something like 'Those folks over there are, of all of the resigning members of the Board of Directors, the top three'. On the nonrestrictive-relative-clause reading (which would typically have a comma before the relativizer *who*), the interpretation would be something like 'Those folks over there are the top three members of the Board of Directors, and they are resigning'. Neither reading is the cleft reading with which we are concerning ourselves here.

that again these properties fall out naturally under an account in which the demonstrative can be used to refer to the instantiation of the OP variable.

Now notice that when the demonstrative subject is used for spatial deixis, *th*-clefts do not require the OP that they require when the demonstrative subject is used for temporal deixis or for discourse deixis in reference to an OP variable. Thus, compare 32a–c discourse-initially.

(32) a. Oh, look—that's your uncle who's walking over there.
b. #Oh, hey—that is/was 1946 that I put this roof on.
c. #Say, I read this interesting article yesterday; that's George Bush who is practicing compassionate hatred.

In 32a, the demonstrative is used for spatial deixis, to refer to a contextually present individual that the hearer can identify visually. In 32b–c, by contrast, the demonstrative is used for temporal and discourse deixis, respectively. The difference in felicity can be traced to this distinction. That is, *th*-clefts with spatial deictics do not require the presence of an OP, whereas *th*-clefts with temporal deictics, and discourse deictics used to refer to an OP variable, do require the OP. Thus, it is not the *th*-cleft construction per se that requires the presence of an OP, but rather the demonstrative within the cleft. The demonstrative *that* cues the hearer to search for an accessible referent (Ariel 1990, 2001). If the referent can be found by searching the physical context (as with the spatial deictic in 32a), the reference succeeds even in the absence of an OP. If, however, the referent cannot be found in the physical context, as in 32b–c, then the OP must be salient in the discourse in order for the hearer to be able to identify the intended referent. This in turn gives rise to the illusion of an OP requirement attached to the construction itself, but the requirement can instead be seen to be compositional, in the sense that it is attached to a smaller element of the construction (the demonstrative), and is then inherited by the larger construction (the *th*-cleft). As we show in the next section, the same use of a demonstrative subject in *th*-equatives results in the same difference in behavior between spatial and other deictic uses of the demonstrative in that construction.[16]

Thus, *th*-clefts with a temporal or discourse deictic in subject position give rise to the ambiguity, apparent number disagreement, and apparent tense disagreement described above, due to the OP requirement attached to these uses of the demonstrative and the consequent ability of the demonstrative to be used to refer to the instantiation of the variable. When the deixis is spatial, by contrast, these effects are not seen. Thus, compare the felicitous case of apparent number disagreement in the context of an OP in 28 above with the infelicity of uttering 33 discourse-initially.

(33) #That's my two brothers who are sitting over there.

Thus, a *th*-cleft shares with TWBX the above-discussed potential for ambiguity and apparent number or tense disagreement precisely when it has in common with TWBX not only the demonstrative subject and equative structure, but also the presence of a salient OP.

[16] There are of course other categories of deixis that we are not considering here, notably person deixis and other types of discourse deixis (i.e. in reference to a discourse unit other than the instantiation of an OP variable). Since person deixis typically involves a pronoun other than a demonstrative, it is tangential to our claims here. As for other types of discourse deixis, it remains an open question whether they would pattern with spatial deixis or with discourse deixis in reference to an OP variable, or whether their behavior would vary based on the type of discourse unit in question.

This account further explains why TWBX frequently corresponds to a *th*-cleft variant that is equally felicitous in the same context. Consider 34.

(34) A: I hear Ginny got elected to the School Board.
B1: No, *that's Sally that got elected*.
B2: No, *that would be Sally*.
B3: No, *that would be Sally that got elected*.
OP: 'X GOT ELECTED TO THE SCHOOL BOARD'

In B1's response we see a *th*-cleft, in B2's response we see TWBX, and in B3's response we see both simultaneously. Thus, the context and intended meaning satisfy the requirements of both TWBX and the *th*-cleft. The acceptability of either construction in this context (as evidenced by B1 and B2), as well as a combination of both (as in B3), is due to the amount of overlap in the structure and function of the two constructions: both combine a demonstrative subject, equative syntax and semantics, and a salient OP. That is to say, because both constructions occur in the context of a salient OP and serve to equate the subject with the postcopular constituent, both permit the use of a demonstrative subject to refer to the instantiation of the OP variable, in order to equate it with the referent of the postcopular constituent. Thus, in cases where the addition of a relative clause expressing the presupposed portion of the OP would not result in redundancy (as it would in a sentence like *#That would be Fred that that is*), we would expect to find a great deal of overlap between the contexts that license the use of a *th*-cleft and those that license the use of TWBX (assuming the demonstrative in each case is used to refer to the instantiation of the OP variable); that is, we would expect to find a high percentage of contexts in which one could felicitously be replaced by the other. In any case, the existence of paradigms like that in 34 gives rise to the question of whether B2 is best analyzed as a case of a *th*-cleft (as in B3) from which the relative clause has been elided, or whether it is best analyzed as a simple equative with no such elision. It is to this question that we now turn.

9. AN ANALYSIS OF TH-EQUATIVES. The above account predicts that any equative sentence with a demonstrative subject (what we are calling '*th*-equatives') will, in the presence of a sufficiently salient appropriate OP, show the same complex of properties (i.e. ambiguity, apparent number disagreement, and apparent tense disagreement) that we have seen for TWBX and *th*-clefts—and, moreover, that these properties will be evident in *th*-equatives ONLY when such an OP is present to render the variable sufficiently salient to provide the referent for the demonstrative. Consider the naturally occurring examples in 35.

(35) a. War ended in 1945 and year later I married; *that's in 1946*, I'm sorry.
(http://www.jfk-assassination.de/warren/wch/vol9/page29.php)
b. Richardson: I got to be head of design in Skidmore much later, Chermayeff was head of the school.
Blum: *That's in 1947*?
Richardson: It would have been 1947.
(http://www.artic.edu/aic/libraries/caohp/richardson.pdf)

These cases correspond to the 'truncated clefts' of Hedberg 2000. Thus, alongside full *th*-clefts such as 36a, variants lacking the relative clause, such as 36b, are also possible.

(36) a. *This is not Iowa we're talking about*—This is a different society.
b. *This is not Iowa.* (Hedberg 2000, ex. 17 (emphasis and additional examples omitted))

Notice, however, that 36b is ambiguous between a cleft-like reading, analogous to 36a

with the relative clause omitted, and a simple equative reading, as, for example, if a driver were hopelessly lost and uttered 36b while looking out his car window and noticing Lake Michigan in the distance. Similarly, consider again 12b, repeated here as 37.

(37) A: Me? I never wallow. I suffer in silence.
B: No, *that's Christine*.

In the context given, the most natural interpretation of B's utterance is one in which the demonstrative is used to refer to the instantiation of the variable in the OP 'X SUFFERS IN SILENCE', resulting in the cleft-like reading. However, in a context in which A's utterance is absent and B has just caught a fleeting glimpse of a person vanishing around a corner, the italicized utterance (*that's Christine*) might more naturally receive an interpretation in which the demonstrative has deictic reference to that individual. As with *th*-clefts, we can see that *th*-equatives whose demonstrative subject is used as a spatial deictic lack the OP requirement because the referent is accessible in the context. In the context in 37, however, the demonstrative is a discourse deictic; therefore a salient OP is required in order for the hearer to be able to access its referent. In this context, the instantiation of the variable is the referent of the demonstrative. Thus, as predicted, *th*-equatives show the first member of our recurring complex of pragmatic properties, that is, the same systematic ambiguity that was observed above for TWBX and *th*-clefts. The second property—the possibility of an apparent number disagreement—is present as well.

(38) A: How I felt about you terrified me, it was so unexpected, so exciting and so dangerous.
B: Dangerous? How? Is this like what you were saying yesterday? That you have to trust that I won't hurt you?
A: No, *that's my parents*, I've always known that I could trust you.
('Unfinished business', http://au.geocities.com/livvyb_au/ub4b.html)

Here, a singular demonstrative and singular copula are used in connection with a plural postcopular NP (*my parents*). Again, however, the referent of the demonstrative subject is the singular instantiation of the variable in the OP 'X HAS TO TRUST THAT B WON'T HURT A'. In a context in which the appropriate OP fails to be salient, or when the demonstrative is used deictically to refer to an entity in the spatial context, such an utterance becomes unacceptable due to number disagreement, as in 39.

(39) #That's my favorite shoes under the desk.

In such cases, the plural referent renders the singular demonstrative inappropriate.

And as we would expect, we also see the same apparent tense disagreement that was seen above for TWBX and *th*-clefts. Thus, corresponding to 25 and 30 above are the examples in 40.

(40) a. 'When I was 13, (*that's 1969, folks*) one of my older brothers came home from college with a huge stack of Marvel Comics—Thor, Avengers, Fantastic Four, etc'.
(http://www.comicon.com/cgi-bin/ultimatebb.cgi?ubb=get_topic;f=36;t=004058)
b. Now, last weekend, *that's July 17–18*, Phyllis and I were the guests of Bob Reding, President and CEO and Dennis Erickson, Manager, Corporate Communications of Canadian Airlines at the Calgary Stampede.
(http://www.mickeyjones.com/news2.htm)

In each of these examples, the present tense is appropriate because the demonstrative

is being used to refer to the instantiation of the variable in the OP (e.g. in 40a, 'I WAS 13 AT TIME X').[17]

Finally, recall that as with *th*-clefts, the use of a *th*-equative with a spatial-deictic demonstrative in subject position is felicitous in the absence of a salient OP; in this case, however, the complex of pragmatic properties disappears. Take, for example, 41 uttered out of the blue by one of a pair of companions walking in downtown Chicago.

(41) Oh, look—*that's the Sears Tower*!

This utterance has a demonstrative subject and an equative, but lacks a salient OP. And as predicted, the only interpretation available for the demonstrative involves spatial deixis, to an entity in the extra-linguistic context. It follows as well that there is no ambiguity; likewise, the demonstrative is required to agree in number with its referent.

(42) Oh, look—#*that's my favorite buildings*!

Similarly, in the absence of an OP, the tense of the copula is required to agree with the time reference of the utterance.

(43) John left for the airport. #*That's at 2:30.*

Here, the OP 'JOHN LEFT FOR THE AIRPORT AT TIME X' constitutes what Prince (1981) calls 'inferrable' information; however, it is not sufficiently salient to make the variable's instantiation available as a referent for a demonstrative. Notice also that in this context the corresponding TWBX (*That would be at 2:30*) and *th*-cleft (*That's at 2:30 that John left for the airport*) would be equally unacceptable.[18]

Thus, in the absence of an appropriate contextually salient OP, the distributional behavior of *th*-equatives becomes like that of any other equative. The question that arises, then, is whether there is sufficient justification for considering such equatives to have two possible syntactic sources, one that corresponds to the use of the sentence in an OP context (the 'truncated cleft') and one that corresponds to the use of the sentence when such an OP is lacking (the simple equative). We argue that it is simpler and more accurate to analyze this linear ordering of elements as a simple equative that may felicitously be used in two contexts—with and without an appropriate contextually salient OP—and whose pragmatic properties when used in the context of an OP parallel those of a cleft for independent reasons.

10. FUNCTIONAL COMPOSITIONALITY AND *th*-EQUATIVES. As we have shown above, *th*-equatives display a set of surprising distributional properties that are also exhibited by *th*-clefts; however, these properties are not unique to these two constructions, but are shared as well by TWBX. We have shown that these properties—referential ambiguity, the illusion of number disagreement, and the illusion of tense disagreement—can be explained as deriving from the combination of the equative and the demonstrative

[17] While a referee judges examples like those in 40 to be less than fully acceptable, a Google search uncovers hundreds of similar naturally occurring examples.

[18] A referee points out that under this account, (i) should be felicitous.

(i) A: When did John leave for the airport?
B: ?#That's at 2:30.

While this example is not fully felicitous, it is nonetheless significantly better than 43. Since we have many examples of this sort of apparent tense mismatch occurring felicitously in the presence of an OP, we can only assume that there are other as-yet-unidentified factors affecting the felicity of temporals in equatives. Nonetheless, the fact that any such examples are felicitous (as in 40) verifies that a salient OP can, in many cases, render the mismatch felicitous. Thus, the question at hand is not why ALL such examples aren't acceptable, but why ANY such examples are, which is what our account seeks to explain.

in the presence of a sufficiently salient OP. Whenever this combination of formal and contextual factors is present, these distributional properties will follow. Although these shared properties might appear to support a treatment of utterances like 36b as truncated clefts, such an analysis is not necessary to account for the pragmatic data. Moreover, such an account renders all *th*-equatives systematically ambiguous between two distinct syntactic derivations. On the one hand, if truncated clefts are viewed as syntactically distinct from simple equatives, then 36b must be derivable via the mechanism that produces this truncation; on the other hand, however, there is obviously nothing that would rule out deriving 36b as the product of placing a demonstrative subject into a simple equative structure. Thus, 36b and all such sentences become structurally ambiguous, with the correct derivation dependent on the presence or absence of an appropriate contextually salient OP. We have shown instead that the pragmatic resemblances between *th*-clefts and *th*-equatives can be straightforwardly explained without analyzing the latter as a subtype of the former, and without the need for two distinct derivations for 36b and the resulting structural ambiguity. Also eliminated is the need to stipulate a syntactic mechanism for truncation.[19]

Furthermore, as Gundel, Hedberg, and Zacharski (2005) point out, while truncated clefts are paraphraseable as full clefts, they are equally paraphraseable as pseudoclefts, as illustrated in 44.

(44) A: What are they building over on the corner?
B1: It's a drugstore.
B2: It's a drugstore that they're building.
B3: What they're building is a drugstore.

Thus, as Gundel and colleagues point out, while one can view B1 here as a truncated cleft (i.e. a variant of B2 in which the relative clause has been elided), one could just as easily view it as a pseudocleft with a pronominalized subject—that is, as a variant of B3 in which the subject relative is pronominalized as *it*. And this observation finds its parallel in *th*-equatives.

(45) A: What campus organization determines salary increases?
B1: That's the College Council.
B2: That's the College Council that determines salary increases.
B3: What determines salary increases is the College Council.

That is, B1 here could be analyzed either as a truncated variant of B2 in which the relative clause has been elided, or as a variant of B3 in which the relative subject has been pronominalized. Gundel and colleagues conclude that 'What's important here is that for purposes of interpretation it doesn't matter which analysis is chosen. What's critical is that the relevant material is in the focus of attention at the time of utterance. Either the referent of the pronoun must be resolved [under the pseudocleft analysis], or the logical form of the utterance must be enriched . . . to provide the information in the elided cleft clause [under the truncated-cleft analysis]' (Gundel et al. 2005:361; bracketed comments ours). This raises the unsettling prospect of having to view *th*-equatives as THREE ways ambiguous, between the straightforward simple equative account, the truncated-cleft account, and the pronominalized-subject pseudocleft account.

[19] We have not here addressed the issue of Hedberg's truncated *it*-clefts, as in 12a. If a truncation analysis turns out to be correct in these cases, then the syntactic mechanism in question will not have been eliminated. Further research is needed in order to determine whether the simple equative account we propose here extends to *it*-clefts as well, that is, whether the example in 12a—*it was her*—is best analyzed as a simple equative with the functional properties of an *it*-cleft in the context of a salient OP.

Again, we propose that there is no reason to analyze such sentences as clefts (or pseudoclefts), given that their cleft-like properties can be accounted for within a simple equative analysis.

Moreover, if 36b is analyzed as a truncated cleft, there is no reason why such sentences might not also contain epistemic *would*, which would result in a truncated-cleft analysis for sentences such as 46.

(46) This would not be Iowa.

More generally, all of the examples of TWBX that have been considered in this article would be amenable to analysis as truncated clefts. Indeed, in previous work (Ward et al. 2007), we tentatively proposed such an analysis, with the suggestion that this offered a potentially fruitful area for further research. In light of the findings described here, however, this account no longer seems tenable. Consider again the examples of TWBX provided in 18, repeated below.

(47) a. A [holding cup]: Whose is this?
B: *That would be my son*. My youngest son, to be exact.
OP: 'THIS CUP BELONGS TO X'

b. GW: What is the per minute charge to Italy?
Operator: Do you have the one-rate plan?
GW: I'm not sure—can I find out through you?
Operator: No, *that would be . . . 1-800-466-3728*.
OP: 'YOU CAN FIND OUT THROUGH X'

c. Villager [in reference to an ogre]: He'll grind your bones for his bread!
Shrek: Actually, *that would be a giant*.
OP: 'THE CREATURE THAT GRINDS YOUR BONES FOR HIS BREAD IS X'

d. A: The pot's light.
B: *That would be me*. [tosses in a chip]
OP: 'THE PERSON WHO FAILED TO ANTE IS X'

e. A: These Bocaburgers have not an ounce of fat in 'em.
B: *That would be the soy*.
OP: 'NOT HAVING AN OUNCE OF FAT IN THEM IS DUE TO X'

A truncated-cleft analysis of these examples runs into difficulties on two counts. First, as noted above for *th*-equatives, it results in all tokens of TWBX being systematically ambiguous between being a truncated cleft and being a simple equative; and given that the simple equative structure is independently motivated, there seems little motivation to posit an alternative structure for these utterances.[20]

Second, the corresponding full *th*-cleft with epistemic *would* is not consistently felicitous as a constructional variant, as shown in 48.

(48) a. A: Whose is this?
B: ?*That would be my son whose cup that is*.

b. GW: What is the per minute charge to Italy?
Operator: Do you have the one-rate plan?
GW: I'm not sure—can I find out through you?
Operator: #No, *that would be 1-800-466-3728 that you can find out through*.

[20] Notice also that these would also potentially be subject to the above-discussed three-way ambiguity in which they could equally well be analyzed as pseudoclefts with pronominalized subjects—a clearly undesirable result.

c. Villager: He'll grind your bones for his bread!
Shrek: Actually, *that would be a giant that grinds your bones for his bread*.

d. A: The pot's light.
B: ?*That would be me who failed to ante*.

e. A: These Bocaburgers have not an ounce of fat in 'em.
B: #*That would be the soy that not having an ounce of fat in them is due to*.

Although in 48c, the putative full-cleft variant is felicitous, in 48a and 48d it is marginal, while in 48b and 48e it is clearly infelicitous. Thus, the constraints on the use of a *th*-cleft and the constraints on the use of TWBX are not identical. While this does not prove that the latter is not a truncated variant of the former, it does erode the argument in favor of such an account, particularly if this account is based on pragmatic similarity. Given that another, simpler account exists that fully explains their pragmatic behavior without positing otherwise unnecessary constructs, there seems little pragmatic motivation for viewing the examples in 47 as truncated clefts. This simpler account also eliminates the need to introduce a systematic syntactic ambiguity that does not correspond to any intuitive difference in constituency or meaning. While we do not address the syntactic arguments for or against such a systematic ambiguity, we have shown that the analysis of TWBX as a simple equative structure is adequate to explain the pragmatic properties that such sentences share with full clefts. Pragmatically speaking, then, the only distinction between a putative truncated cleft (as in 49a) and a simple *th*-equative (as in 49b) is the presence or absence, respectively, of a contextually salient OP.

(49) a. I told my teacher that the John Hancock building was the tallest building in Chicago, but then I realized that *that's the Sears Tower*.
b. Oh, look—*that's the Sears Tower*!

If and only if a contextually salient OP is available, as in 49a, the variable will be available for demonstrative reference, with all of the consequent pragmatic properties. In the absence of such an OP, as in 49b, the utterance will be interpreted as a simple equative.

11. CONCLUSION. In this article, we have examined the behavior of three constructions that we have argued are functionally compositional, in that the functional properties of each are not associated with the construction as a whole, but are derived from an interaction of the functions of its component parts. The constructions we have investigated share three properties—a demonstrative subject, equative syntax and semantics, and occurrence in the context of a salient OP (which in turn is due, in the case of the *th*-cleft and *th*-equative, to the use of the demonstrative in the absence of spatial deixis). When these properties cooccur, we have argued, they give rise to an interpretation in which the demonstrative is used to refer to the instantiation of the variable in the OP. More specifically, when the speaker's communicative goal is to instantiate the variable in the OP, the use of the demonstrative in combination with the equative provides a means of attaining this goal, in that the demonstrative can be used in reference to the salient variable, and then equated with the postcopular instantiation of the variable by means of the equative. In this sense, then, it is not necessary to posit, for example, that TWBX is a distinct construction exhibiting variable-reference, ambiguity, and so forth as separately specified functional properties of that construction. Rather, TWBX is the natural result of combining epistemic *would* (with its independent OP requirement)

with a demonstrative subject and an equative, and the observed complex of properties is the natural result of this combination of elements. Similarly, a *th*-cleft is the result of combining a cleft (with its equative form and meaning) with a demonstrative subject; again, in the context of a salient OP the observed complex of properties will result. And finally, the *th*-equative need not be viewed as a truncated cleft, but can be seen instead as the natural result of combining a demonstrative subject with an equative in a context that provides the appropriate salient OP; again, the same complex of properties is the natural result.

Finally, it should be noted that while the three constructions we have examined here have much in common, it is not the case that they are identical in meaning and use. (For example, the use of epistemic *would* conveys a particular degree of certainty that is lacking in the other epistemic modals.) As illustrated in 48 above, the constructions are not consistently interchangeable in context, and much work remains to be done examining the properties that are specific to each construction.

The functional properties that they do share, however, have been shown to result not from a shared status as clefts but rather from a shared set of elemental features. What this suggests is that not all functional properties must be learned on a construction-by-construction basis; instead, just as the semantic meaning of a sentence is built up compositionally from the semantics of its parts, so too are the discourse functions of an utterance built up compositionally from those of its parts. Further research is necessary to determine the extent to which languages in general contain functionally complex constructions whose discourse-functional properties are built up in a predictable way from the functions of the individual components of those constructions.

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Birner
Department of English
Northern Illinois University
DeKalb, IL 60115-2863
[bbirner@niu.edu]

Kaplan
Department of Linguistics and Asian/Middle Eastern Languages
San Diego State University
San Diego, CA 92182-7727
[jkaplan@mail.sdsu.edu]

Ward
Department of Linguistics
Northwestern University
2016 Sheridan Rd.
Evanston, IL 60208-4090
[gw@northwestern.edu]

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