

The Interpretation of Concealed Questions

Lance Nathan
MIT

1. Concealed Questions: Two New Proposals

Baker (1968) observed that certain nouns can be interpreted as questions when they are complements of question-embedding verbs. Nouns used in this manner are called *concealed questions* (CQs). The italicized DPs in (1) exemplify the phenomenon.

- (1) a. Kim knows *the capital of Vermont*.¹ (= Kim knows *what the capital of Vermont is*.)
b. Leslie has forgotten *the price of milk*. (= Leslie has forgotten *what the price of milk is*.)
c. Sandy told me *the time of the meeting*. (= Sandy told me *what the time of the meeting is*.)

Two issues arise concerning CQ interpretation. As the contrast in (2a) demonstrates that not every question-embedding verb can embed concealed questions, we may wonder which verbs can. And as the contrast in (2b) demonstrates that not every noun can serve as a concealed question in all circumstances, we may wonder which nouns can when.

- (2) a. Kim {knows/*wonders} the price of milk.
b. Kim knows the {capital of/#large city in/largest city in} Vermont.
(cf. *Kim knows what the large city in Vermont is—it's Burlington*.)

Previous answers to these questions have been that predicates must be individually specified for taking or not taking CQs as complements, and that CQs are headed by “functional nouns” (i.e. nouns such as *time*, *price*, and *capital* that denote functions in some sense).

In this paper, I propose a new answer to each of these questions. First, I will defend the proposal that predicates are not idiosyncratic in terms of CQ-embedding, but that in fact a correlation exists: roughly, *a predicate can embed a concealed question if and only if it can embed a proposition* (though this will be refined as the argument progresses.) Second, I will suggest that there are two different classes of CQ: those headed by functional nouns, and those headed by other nouns when modified in certain ways.

In Section 2, I'll say a few words about the aforementioned previous analyses. In the sections following, I will look at certain apparent counterexamples to the CQ/Proposition correlation and demonstrate how each can be reanalyzed so as to not be a counterexample after all. In particular, taking *know* to be a prototypical verb demonstrating the correlation, we will see that *ask* embeds CQs differently than *know* does, that *care* embeds propositions differently, and that *inform* embeds questions differently.

* This paper has benefited greatly from the comments of the attendees of WCCFL 24, of those who heard an earlier version at SNEWS 2004, and of Chris Barker, Kai von Fintel, Irene Heim, and Polly Jacobson. I am indebted to all these people for strengthening the theory presented here, though none of them are responsible for weaknesses that remain.

¹ There is also the irrelevant “be familiar with” reading, e.g. *Kim knows the capital of Vermont like the back of her hand*. The two are separate; one can be familiar with Montpelier without being able to identify it as the capital of Vermont, and one can identify the capital of Vermont even if one has no familiarity with the city.

2. A Few Words About Previous Approaches

The proposal I wish to defend—that a predicate can embed a CQ if and only if it can embed a proposition—is not only not obviously true, it’s apparently false. As the paradigm in (3) shows, *know*, *ask*, *care*, and *wonder* all behave differently with respect to propositions and concealed questions, the first and last following the correlation, but the second and third contradicting it.

- (3) a. Kim knew... ...the time. ...that it was after 5 pm. ...what time it was.
 b. Kim asked... ...the time. *...that it was after 5 pm. ...what time it was.
 c. Kim cared... *...the time. ...that it was after 5 pm. ...what time it was.
 d. Kim wondered... *...the time. *...that it was after 5 pm. ...what time it was.

(*Inform*, to be discussed in Section 5, behaves like *care*, though we will see later that their apparently similar behavior—embedding propositions but not concealed questions—has two distinct causes.)

Conventional wisdom has been that this paradigm provides evidence for the *Autonomy Hypothesis* of Grimshaw (1979). She argues that predicates are lexically specified for *c-selection*, i.e. their possible syntactic complements (CP, DP, ...), and for *s-selection*, i.e. their possible semantic complements (Questions, Propositions, ...). The Autonomy Hypothesis states that the two are independent. Thus the four predicates in (3) are lexically specified as in (4).

(4)		c-selection	s-selection
	<i>know</i>	[CP, DP]	<Q, P>
	<i>ask</i>	[CP, DP]	<Q>
	<i>care</i>	[CP]	<Q, P>
	<i>wonder</i>	[CP]	<Q>

Later revisions to this approach—Grimshaw’s (1981) account of certain unpredicted correlations, and Pesetsky’s (1981) Case Theory, an attempt to reduce c-selection to lexically specified Case selection, arguably needed independently—maintained the fundamental observation that the predicates behave idiosyncratically, and thus the behavior of each must be lexically specified.²

However, the vast majority of question-embedding predicates (see Karttunen 1977 for a list) are not idiosyncratic at all. In fact, most of them embed both propositions and CQs (*know*, *recall*, *learn*, *tell*, *predict*, *be certain of*, etc.), and a few embed neither (*wonder*, *inquire*). In this light, *ask* and *care* seem to be exceptions to a correlation between CQ-embedding and proposition-embedding, and not evidence for a lack of correlation. It is for this reason that I propose such a correlation.

This generalization is only as good as its ability to overcome counterexamples. In the next three sections, I will demonstrate various ways to explain the behavior of apparent counterexamples.

3. The Explanation of *Ask*

Ask seems to be a counterexample to the proposal of the previous section, insofar it embeds concealed questions but not propositions. However, by recognizing that there are two kinds of CQ distinguishable by semantic type, and that *ask* embeds one but not the other, we can see that *ask* embeds CQs differently than *know* does.

² But see Dor (1992) for a semantic explanation (which I argue elsewhere to be empirically inadequate).

3.1 The meaning of a CQ

Recall the sample concealed questions in (1):

- (1) a. Kim knows *the capital of Vermont*.
 b. Leslie has forgotten *the price of milk*.
 c. Sandy told me *the time of the meeting*.

That these DPs were paraphrased as *what (DP) is* is no coincidence. In fact, one hallmark of concealed questions is that they necessarily have the meaning of identity questions, which a composition semantics must encode. The DPs cannot stand in for just any question, regardless of any pragmatic bias in favor of a non-identity question.³

For instance, in (5a), the fact about the capital of Vermont that will most help Leslie navigate is where it is, but the DP nevertheless must mean *what it is*, not *where*, making the sentence anomalous. Similarly, regardless of context, the italicized DP in (5b) cannot mean *who saw the movie directed by Orson Welles*; a CQ cannot even mean *which one DP is*, as seen in (5c).

- (5) a. #Leslie needed driving directions, so I told her *the capital of Vermont*.
 b. #Matt is compiling a list of who saw which movies, so I told him *the movie directed by Orson Welles*.
 c. #There are three possible prices listed here: \$1, \$1.50, and \$2. Tell me *the price of milk*

Later in this section, we will see how an interpretation mechanism for CQs can ensure this.

3.2 Functional noun CQs and “appropriately modified” CQs

As mentioned before, there is a range of nouns which can naturally head a CQ, either unmodified or with a complement (possessive or with *of*). A partial list (based on Caponigro and Heller 2003):

- (6) Tell me...
- | | | | |
|------------------------------------|-------------------------------------|------------------------------|--------------------|
| the <i>governor</i> of California | the <i>capital</i> of France | the <i>color</i> of my eyes | your <i>height</i> |
| the <i>winner</i> of the marathon | the <i>temperature</i> of the water | your <i>shoe size</i> | her <i>age</i> |
| the <i>outcome</i> of the trial | the <i>time</i> of the meeting | the <i>square root</i> of 49 | |
| the <i>location</i> of the meeting | Bill's <i>telephone number</i> | the <i>sum</i> of 8 and 9 | |

Following Heim (1977), we can call these *functional nouns*: *governor* is a function from states to the individuals who govern them; *height* is a function from objects to numbers (or measures); and so forth.

Past discussions have taken functional nouns to be the only possible CQs. Indeed, nouns that aren't functional nouns (*city*, *restaurant*, etc.) cannot, it seems, be CQs, as seen in (7). As was true for non-identity meanings, loading the context to make a certain identity question salient cannot salvage these.

- (7) a. *Tell me the large city of Vermont.
 b. *Tell me a city in Vermont.
 c. *Tell me a good restaurant.

³ This fact applies to concealed questions only, i.e. DPs that are direct complements to predicates, possibly with the case-marking preposition *of*. A DP complement of a preposition such as *about* shows neither the distribution of CQs (e.g. *John wonders about the price of milk*) nor the semantic restriction discussed here (e.g. in the previous sentence, John may wonder whether the price of milk is higher than the price of cheese, and not necessarily wonder what the price of milk actually is).

- (8) a. Vermont has, of course, only one capital city. Let me tell you the capital of Vermont.
 b. Vermont has only one large city. *Let me tell you {the city/the large city (of Vermont)}.

However, this is not the whole story: the same nouns that could not be CQs in (7) can be in (9).

- (9) a. Tell me the largest city in Vermont.
 b. Tell me a city you visited last month.
 c. Tell me the restaurant I must visit when in Vancouver.

In other words, while functional nouns easily serve as CQs, there is a second class of concealed questions, namely those headed by non-functional nouns that have been modified in certain ways.

The above examples illustrate that not every method of modifying a noun can create a CQ. I will not provide a complete examination of the possible methods, but the following three examples illustrate the breadth of possibilities.

One way to turn a non-functional noun into a CQ is to use a postnominal adjective. A predicate adjective may have either a stage-level or individual-level interpretation, so *Sandy is responsible* might mean that Sandy is reliable and mature (i-level) or that Sandy is guilty of some act (s-level). Bolinger (1967) observed that prenominal adjectives are most easily interpreted as individual-level (*Sandy is the responsible person (around here)* most easily has the “reliable and mature” meaning) whereas postnominal adjectives have stage-level interpretations only (*Sandy is the person responsible* has only the “guilty of something” meaning). The latter but not the former can turn a noun into a CQ:

- (10) a. *Sam wanted to know the responsible person.
 b. Sam wanted to know the person responsible.

Not all postnominal modifiers create CQs from non-functional nouns, however. Relative clauses do, even with individual-level predicates; prepositional phrases do not.

- (11) a. Sam wanted to know the person who’s (always so) responsible.
 b. *Sam wanted to know the responsible person in the department.

Nor must the modification be postnominal, as nouns modified with superlatives (as *the largest city in Vermont*, above) can also be CQs.

This list is certainly not complete; there is work remaining to determine which modification creates a possible concealed question, and why. Functional nouns, in any case, require no such modification, suggesting that they are a distinct class of CQ. The next section illustrates another difference between the two classes.

3.3 The interpretation of a CQ: explaining ask

This section began by noting that *ask*, because it embeds CQs but not propositions, is a counterexample to the hypothesized correlation. This seems true at first glance:

- (12) a. Sam knew {the time/the capital of Vermont/the price of milk}.
 b. Sam asked {the time/the capital of Vermont/the price of milk}.

However, in light of the data presented in the last section, a more careful look at *ask* shows that it does not embed concealed questions as freely as predicates like *know* do.

- (13) a. Sam knew {the person responsible/the largest city in Vermont}.
 b. *Sam asked {the person responsible/the largest city in Vermont}.

As one goal of this paper is to provide a semantic account of the distribution of CQs, let us entertain the possibility that the difference between *know* and *ask* is one of semantic type. In particular, we can interpret CQs as identity *propositions* instead of identity *questions*, and since *know* can compose semantically with a proposition and *wonder* cannot, we thereby encode both the limited meaning of CQs and the correlation between CQs and propositions as complements. A type-shifting operation like that in (14) is available to both classes of CQ.

$$(14) \quad \lambda P_{\langle e, t \rangle} \cdot \lambda p_{\langle s, t \rangle} \cdot [\exists x_e \cdot p = \lambda w_s \cdot P^w(x)] \quad \langle e, t \rangle \rightarrow \langle st, t \rangle$$

This derives the meaning of CQ from the NP. The definite determiner in (15) then selects the unique proposition in the set.⁴

$$(15) \quad \llbracket the \rrbracket = \lambda Q_{\langle st, t \rangle} \cdot \iota p_{\langle s, t \rangle} \cdot [Q(p) = 1] \quad (\text{cf. } \llbracket the \rrbracket = \lambda P_{\langle e, t \rangle} \cdot \iota x_e \cdot [P(x) = 1])$$

Ask, which does not accept propositional complements, does not compose with CQs the way *know* does. Instead, functional noun DPs are *individual concepts*, of type $\langle s, e \rangle$ (= functions from worlds to individuals). *Ask* is then ambiguous between question-embedding and IC-embedding:

$$(16) \quad \begin{array}{l} \text{a.} \quad \llbracket ask \rrbracket^w = \lambda Q_{\langle st, t \rangle} \cdot \lambda x_e \cdot [x \text{ asks the question } Q \text{ in } w] \\ \text{b.} \quad \llbracket ask \rrbracket^w = \lambda y_{\langle s, e \rangle} \cdot \lambda x_e \cdot [x \text{ asks the question } \lambda p_{\langle s, t \rangle} [\exists z_e \cdot p = \lambda w' \cdot [y(w') = z]] \text{ in } w] \end{array}$$

For instance: *Sam asked the time of the meeting* means roughly that Sam asked which proposition in the set $\{\lambda w \cdot [\text{TIME-OF-MEETING}(w) = 2:00 \text{ pm}], \lambda w \cdot [\text{TIME-OF-MEETING}(w) = 3:00 \text{ pm}], \dots\}$ is true.⁵

4. The Explanation of *Care*

Care seems to be a counterexample the hypothesized correlation for the opposite reason from *ask*, which is to say that it embeds propositions but not concealed questions. Once again, a more careful examination of the verb's composition with complements will clear up the apparent problem.

4.1 Lahiri (2000) and Interrogative Raising

As we saw in the previous section, the central hypothesis of this paper involves treating apparent questions as propositions. This treatment builds on the proposal of Lahiri (2000, 2002) to explain the *Quantificational Variability Effect* (QVE) of Berman (1991).⁶ In QVE sentences, an adverb modifying a question-embedding verb quantifies in some sense over the embedded question. Thus, while (17a) has the meaning given roughly below it, (17b) has no such meaning.

⁴ This predicts that quantifiers such as *every* can relate, via Quantifier Raising, the set of propositions denoted by the NP to the set of propositions that, e.g., Sam knew. Though there is not space here to explore this question, I believe this prediction is correct. Compare this prediction to the QVE data and consequent theory of Lahiri (2000) discussed in the next section. (In general, the hypothesis discussed here is inspired by, but does not appear in, Lahiri's work.)

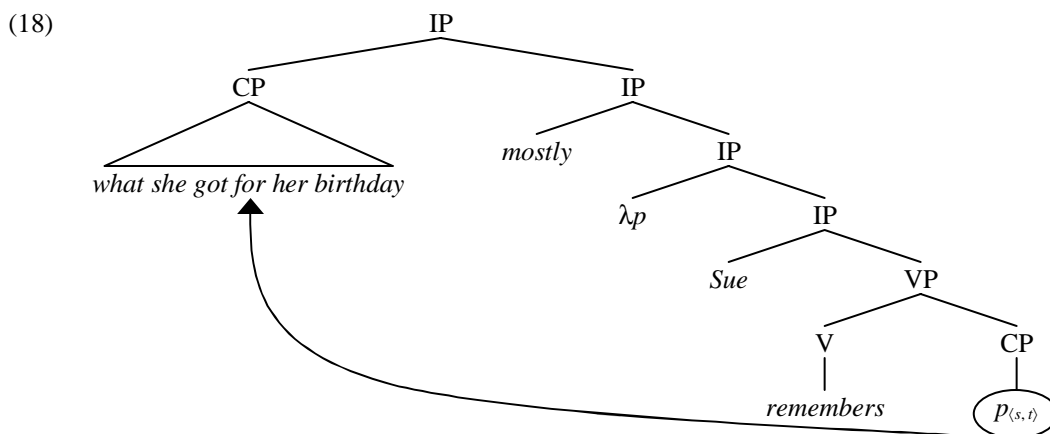
⁵ After the talk, Maribel Romero raised an important question: can't other definite descriptions, such as those in non-functional CQs, have individual concept meanings? Very possibly so; and if so, the meaning in (16b) cannot be right. Nevertheless, it seems clear that *something* distinguishes the two classes of CQs. I am confident that, if it is not the possibility of having an individual concept meaning, then further exploration of the nature of the nominal modification that creates a CQ from a non-functional noun will reveal the actual distinguishing factor.

⁶ See Beck and Sharvit (2002) for a different account of QVE involving quantification over subquestions and for arguments against Lahiri. In general I do not find their data entirely straightforward or compelling, but they do raise objections that require a response. Unfortunately, a response complex and thorough enough to do their paper justice requires a paper of at least this length, and thus I will not explore their theory farther here.

- (17) a. Sue mostly remembers what she got for her birthday.
 most_x[Sue got x for her birthday][Sue remembers that she got x]
- b. #Sue mostly wonders what she got for her birthday.⁷
 most_x[Sue got x for her birthday][Sue wonders...?]

Lahiri observed that QVE verbs such as *know* and *remember* seem to be ambiguous between $\langle st, et \rangle$ and $\langle \langle st, t \rangle, et \rangle$ (i.e. between proposition-embedding predicates and question-embedding predicates), whereas non-QVE verbs uniformly have the latter type.

To capture this correlation, Lahiri proposed giving *know* only the type $\langle st, et \rangle$, and *wonder*, of course, only the type $\langle \langle st, t \rangle, et \rangle$. Consequently, *know* cannot compose directly with a question of type $\langle st, t \rangle$; interpretation happens by means of a rule of *Interrogative Raising* (IR), whose structure is represented in the tree in (18) from the sentence in (17a).



In IR, the interrogative raises and leaves behind a trace of type $\langle s, t \rangle$, with which the proposition-embedding predicate can compose. Lambda-abstraction then forms a set of propositions, and the adverb, having type $\langle \langle st, t \rangle, \langle \langle st, t \rangle, t \rangle \rangle$, relates the two sets of propositions. (With no explicit adverb, the sentence is interpreted with an implicit quantification: most often universal, but existential in some cases.) The logical form of the above tree is

- (19) most $(\lambda p[\text{Ans}(p, \llbracket \text{what she got for her birthday} \rrbracket) \wedge C(p)]) (\lambda p[\text{know}(p)(\text{sue})])$

where $\text{Ans}(p, Q)$ is true if p is an answer to Q ,⁸ and C is a contextual variable ($\lambda p . \forall p$ for factive verbs). In other words, most of the propositions in the set of (true) propositions that are answers to *what Sue got for her birthday* are also in the set of propositions that Sue knows.

While such a rule may seem a radical move, IR is not significantly different in its mechanics than Quantifier Raising, which also moves a set to resolve a type mismatch, leaving behind a lower type and then relating two sets. The type of quantifiers, $\langle \langle e, t \rangle, \langle \langle e, t \rangle, t \rangle \rangle$, is directly analogous to the type of adverbs in IR, as the former relates two sets of individuals, the latter two sets of propositions.

⁷ There is a grammatical, felicitous reading of this sentence, where *mostly* quantifies not over the question (or its answers) but over events or situations: *At most events* e , *Sue wonders at* e *what she got for her birthday*. Such a reading is unsurprising—events and especially pluralities of events can be broken down into smaller pieces, perhaps depending on one’s theory of event structure—and not relevant to the issue here.

⁸ Lahiri uses the power set of propositions in the question denotation, thereby creating a Boolean algebra of propositions on which *Ans* can be defined. For this paper, treating p as an answer to Q if $p \in Q$ will suffice.

4.2 A note on Lahiri's theory of IR

Before seeing how IR can help us understand *care*, we must observe one problem with Lahiri's approach. As written, IR can apply to any $\langle st, et \rangle$ predicate, not just *know* and others that embed questions. The sentence in (20a) does not have the reading in (20b), but IR predicts the existence of such a meaning, directly analogously to (17a)/(19).

- (20) a. #Sue mostly believes what she got for her birthday.
 b. most $(\lambda p[\text{Ans}(p, \llbracket \text{what she got for her birthday} \rrbracket]) \wedge C(p)) (\lambda p[\text{believe}(p)(\text{sue})])$

Paraphrased, this logical form states that most propositions that answer the question "What did Sue get for her birthday?" are propositions that Sue believes. But again, this meaning is absent.

Lahiri notes this fact and explains that "[t]his is not an argument against the account developed here, but an independent question.... I assume that such information is present in the lexicon." Indeed, it seems that some form of lexical selection must remain, though less than had previously been assumed. It remains to be seen whether such lexical selection can, as CQ-embedding, be reduced to other principles.

4.3 Lexical ambiguity: explaining *care*

Now for *care*. As noted before, *care* embeds propositions but not concealed questions. What distinguishes *care* from other question-embedding, proposition-embedding verbs such as *remember* or *know* is that *care* does not exhibit the quantificational variability effect.

- (21) *Sue mostly cares what she got for her birthday (...but doesn't care that she got a puppy).

In light of the previous section, it seems that *care* is more similar to *believe* than to *know* in this respect. In fact, examining the insight underlying Lahiri's theory, verbs like *wonder* combine directly with a question and relate that question in some way to the subject, and IR relates the subject not to the question complement but to the answers to the question.

Consider, along these lines, the question *who left*, and suppose the proposition *that Sandy left* is a true answer to this question. *Know*, *remember*, and *care* are all factive; nevertheless, the entailments in (22a-b) hold, while the entailment in (22c) does not.

- (22) a. Kim knows who left \wedge Sandy left \rightarrow Kim knows that Sandy left
 b. Kim remembers who left \wedge Sandy left \rightarrow Kim remembers that Sandy left
 c. Kim cares who left \wedge Sandy left \nrightarrow Kim cares that Sandy left

In light of Lahiri's proposal, the failure of *care* to allow QVE is unsurprising, given the lack of entailment between *care* with a question and *care* with an answer to the question.

Why, then, can *care* not embed concealed questions? The answer is that *care* is not a counterexample to the generalization about verbs like *know* that embed questions and propositions, because question-embedding *care* and proposition-embedding *care* are not related in the same way that the two apparent senses of *know* are. In fact, with a question, *care* resembles *wonder*: it does not exhibit QVE and it relates its subject to its question object, not to the answers to that question. On the other hand, with a proposition, *care* does not exhibit QVE and does not accept concealed question complements for the same reason as verbs like *believe*, whatever that reason might prove to be.

In summary, *care* embeds propositions differently than *know* does, and therefore is not a true counterexample to the generalization that (question-embedding) predicates that can embed propositions can also embed concealed questions.

5. The Explanation of *Inform*

Like *care*, *inform* (and its near-synonym *notify*, though not *tell*) seems to be a counterexample to the hypothesized correlation, as it too embeds propositions but not concealed questions:

- (23) a. Kim informed Sandy where the meeting would take place.
 b. Kim informed Sandy that the meeting was at 3 pm.
 c. *Kim informed Sandy the time of the meeting.

However, *inform* does allow QVE:

- (24) Kim mostly informed Sandy where she had gone on vacation.
 (≈ For most places that Kim went on vacation, she informed Sandy that she had gone there.)

Thus the explanation of *care* laid out in the previous section cannot explain *inform* as well.

But on closer inspection, *inform* does not embed questions quite as freely as other predicates like *know*. There is nothing exceptional about the questions *who the president of the club is* or *what you find out*, and *tell* embeds either without anomaly; yet *inform* cannot.

- (25) a. Kim told Sandy who the president of the club is.
 b. ?*Kim informed Sandy who the president of the club is.
 c. Keep telling Sandy what you find out.
 d. *Keep informing Sandy what you find out.

In particular, there seems to be a specific restriction on *who*- and *what*-questions as complements to *inform*, in contrast to *where*- or *why*- questions: that is, questions formed by argument movement in contrast to those formed by adjunct movement. Suppose, then, that there is some selectional restriction on *inform* that prevents it from composing semantically with *who*- and *what*-questions. Insofar as CQs have meanings like identity questions, which are *who*-/*what*-questions, they too cannot be objects of *inform*.

This sort of selectional restriction resembles, in a sense, quirky Case selection: the verb puts a particular requirement on its object. And the analogy to Case is more than superficial. For adjectival predicates like *be certain*, the preposition *of* resolves the syntactic ungrammaticality of giving an adjective a DP complement without adding any semantic information (i.e. while preserving the strict identity meaning of CQs).

- (26) a. Kim is certain what time it is.
 b. *Kim is certain the time.
 c. Kim is certain *of* the time.

Sure enough, with *inform*, adding *of* salvages not only sentences with concealed questions but also those with full-CP *who*- and *what*-questions.

- (27) a. Kim informed Sandy of who the president of the club is.
 b. Keep informing Sandy of what you find out.
 c. Kim informed Sandy of the time of the meeting.

In other words, *inform* actually can embed CQs, though it has an additional Case-like requirement on both questions and CQs that *know* does not have. So it, too, does not constitute a real counterexample to the hypothesis.

6. Conclusions

I have argued in this paper for two new treatments of concealed questions. First, I have offered a method of interpretation to explain their distribution, namely that the full range of concealed questions can be objects of all question-embedding predicates that embed propositions, and only those predicates. *Ask* cannot embed the full range of concealed questions; question-embedding *care* does not embed propositions; and some predicates, such as *inform* and *be certain*, require a case-marking preposition. Second, I have suggested the need to recognize that concealed questions have two distinct forms, distinguishable by semantic type.

There are a number of questions left open for further exploration. For instance, the exact nature of the modifications discussed in Section 3.3 remains to be found. Examining concealed questions across languages should suggest certain patterns English alone does not (I have been told that Thai, for instance, does not have CQs at all, and that some Slavic languages cannot form CQs by modification of non-functional nouns). And Romero (to appear) suggests that CQs are related to specificational subjects of copular sentences; insofar as her proposal for the interpretation of CQs differs from the one presented here, more research will be needed to reconcile the two proposals. I am confident that further exploration of these topics will strengthen the proposals put forth here.

References

- Baker, C.L. 1968. *Indirect questions in English*. Doctoral dissertation, University of Illinois.
- Bolinger, Dwight. 1967. "Adjectives in English: attribution and predication." *Lingua* 18, 1-34
- Caponigro, Ivano and Daphna Heller. 2003. "The non concealed nature of free relatives: implications for connectivity." Handout, Workshop on Direct Compositionality, Brown University, June 2003.
- Grimshaw, Jane. 1979. "Complement selection and the lexicon." *Linguistic Inquiry* 10, 279-326.
- Grimshaw, Jane. 1981. "Form, function, and the Language Acquisition Device." In C. L. Baker and John J. McCarthy (eds.), *The logical problem of language acquisition*, 165-182.
- Hamblin, C.L. 1973. "Questions in Montague English." *Foundations of Language* 10, 41-53.
- Heim, Irene. 1979. "Concealed questions." In Rainer Bäuerle, Urs Egli, and Arnim von Stechow (eds.), *Semantics from Different Points of View*, 51-60.
- Karttunen, Lauri. 1977. "Syntax and semantics of questions." *Linguistics and Philosophy* 1, 3-44.
- Lahiri, Utpal. 2000. "Lexical selection and quantificational variability in embedded interrogatives." *Linguistics and Philosophy* 23, 325-389.
- Lahiri, Utpal. 2002. *Questions and answers in embedded contexts*. Oxford University Press.
- Pesetsky, David. 1991. *Zero Syntax vol. 2: Infinitives*. Unpublished manuscript available at <http://web.mit.edu/afs/athena.mit.edu/org/1/linguistics/www/pesetsky/infins.pdf>.
- Romero, Maribel. "The semantics of concealed questions and specificational subjects." To appear in *Linguistics and Philosophy*.

Proceedings of the 24th West Coast Conference on Formal Linguistics

edited by John Alderete,
Chung-hye Han, and Alexei Kochetov

Cascadilla Proceedings Project Somerville, MA 2005

Copyright information

Proceedings of the 24th West Coast Conference on Formal Linguistics
© 2005 Cascadilla Proceedings Project, Somerville, MA. All rights reserved

ISBN 1-57473-407-5 library binding

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Proceedings Project.

Ordering information

Orders for the library binding edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, e-mail: sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Nathan, Lance. 2005. The Interpretation of Concealed Questions. In *Proceedings of the 24th West Coast Conference on Formal Linguistics*, ed. John Alderete et al., 290-298. Somerville, MA: Cascadilla Proceedings Project.

or:

Nathan, Lance. 2005. The Interpretation of Concealed Questions. In *Proceedings of the 24th West Coast Conference on Formal Linguistics*, ed. John Alderete et al., 290-298. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #1234.