

Keeping Prices Low: An Answer to a Concealed Question

Heim (1979) discovers the phenomenon of DPs read as identity questions ('concealed questions' CQ, e.g. (1)), and proposes a solution that, as she points out herself, does not account for the *b*-reading (the 'metaknowledge reading') of (2). Among the most promising solutions to CQ available so far, Romero (2005) provides a detailed account for the metaknowledge reading (2b), but does not extend to CQs with indefinites like (3). Nathan (2006) and Frana (2006) account for (3), but, as they stand, do not apply to (2). I argue that all accounts mentioned suffer from attributing to the attitude subject knowledge about an individual. By amending this, I obtain an analysis of CQs that captures (i) both readings of (2) (without type-inflation, cf. Romero 2005), (ii) (in)definites (and quantifiers, not discussed here), and offers (iii) a better understanding for why (in a given context) not all (in)definite DPs give rise to acceptable CQs.

- (1) John knows the deadline for SuB. (= *what the deadline for SuB is*)
- (2) John knows the capital Mary knows.
 - a. *there is exactly one country such that Mary can answer the question what its capital is, and John can also answer that question*
 - b. *there is exactly one country such that Mary knows what its capital is, and John knows which country that is*
- (3) Mary knows a doctor who can help you.

The Identification Problem: Frana shows that (3) is a CQ and does not simply express acquaintance. She treats it by letting Mary ascribe the property of *being a doctor who can help you* to an individual which in the actual world is indeed a doctor who can help you (a variant of Heim's 'pragmatic analysis'). But this is too strong as an account for (3): Assume Mary gives you the name of Dr. Harald Finkelstein, thinking (correctly) that this is a doctor who can cure your ailment. The same day, at a party, he is introduced to her as Harry, and claims he is a famous semanticist. So, clearly, she does not think that the person she is talking to is a doctor who can help you. In this scenario, (3) is true, but Mary does not ascribe the property of *being a doctor who can help you* to her interlocutor - yet, he is the individual the truth of (3) hinges on. Since we do not feel Mary to hold contradictory beliefs, we have to take into account that individuals are not targeted simpliciter but only in a certain guise: in the given scenario, Mary picks out the same individual by *Dr. Harald Finkelstein*, *Harry*, and *the person I am talking to*, but believes him to be *a doctor who can help you* only under the first description.

Covering Concealed Questions: Aloni (2000) argues that quantification, belief attribution and interrogation have to proceed with respect to one or more contextually salient methods of identifying the individuals in the domain. Such a 'conceptual cover' is modeled as a set of individual concepts (functions from worlds to individuals) that jointly, in each world, pick up all individuals, and overlap in no world (i.e., representations and individuals stand in a one-to-one relation). I take CQs to be similar to identifying questions like (4) which can only be asked in a context which provides two ways of (cross-)identifying the relevant individuals. For (4), these could be names: $\{\lambda w. \text{Mary}(w), \lambda w. \text{Harry}(w), \dots\}$, and positions in the room: $\{\lambda w. \text{the person in the last row}(w), \lambda w. \text{the person closest to the window}(w), \dots\}$.

- (4) Who is who?

Then, (5a) is natural as a CQ because the task of pairing countries with the name of their capital is familiar to all of us. I enrich Frana’s analysis by requiring the salience of two perspectives that cover the domain of (relevant) individuals (Nathan’s analysis could be translated as well). Indices n, m, o, \dots on individual concept variables indicate which contextually salient perspective contains possible values for the variable (cf. Aloni 2000 for details). A simple CQ like (5a) says that Mary has some representation x_n of the actual capital of Italy (most likely $\lambda w.\iota u$ capital-of-Italy(w)(u) from the city name cover), and she thinks that it coincides with *the capital of Italy* (an element of the second contextually salient perspective m):

- (5) a. Mary knows the capital of Italy.
 b. $\exists x_n \exists y_m [x_n(w) = y_m(w) \ \& \ y_m = \lambda w.\iota u$ capital-of-Italy(w)(u) $\&$
 $\forall w' \in Dox_{Mary}(w) : [x_n(w') = y_m(w')]]$,
 where x comes from the perspective assigned to n , and y from the perspective assigned to m , and n and m are mapped onto different perspectives

The two CQ-readings of (2) are now explicable as follows. *capital* is taken to be the set of cities such that there is a country they are the capital of. Reading (2a) is analysed as (6) (e.g.: $x_n = \lambda w.\iota u$ capital of Italy(w)(u), the actual value of which is known to Mary and John under $z_m = y_o = \lambda w.$ Rome(w), with $o = m$).

- (6) $\exists x_n [x_n(w) \in \text{capital}(w) \ \& \ \exists z_m [\forall w' \in Dox_{Mary}(w) [z_m(w') = x_n(w')]] \ \&$
 $\exists y_o [\forall w' \in Dox_{John}(w) [y_o(w') = x_n(w')]]]$

The metaknowledge reading (2b) says that Mary can identify a certain capital and John knows which capital it is that she can identify, without being able to identify it himself (the dependent y_o running over all cities John cannot exclude as the capital of Italy).

- (7) $\exists x_n [x_n \in \text{capital}(w) \ \& \ \exists z_m [\forall w' \in Dox_{Mary}(w) [x_n(w') = z_m(w')]] \ \&$
 $\forall w' \in Dox_{John}(w) [x_n(w') \in \text{capital}(w')] \ \&$
 $\exists y_o [\forall w'' \in Dox_{Mary}(w') [x_n(w'') = y_o(w'')]]]$

Conclusion: I have shown that CQs have to depend on the representations belief subjects have of an individual. As soon as this is built into the analysis, we can account for knowledge about other subject’s knowledge without resorting to more complex objects of belief. Like any pragmatic analysis, the account involves a high amount of context dependence, but this is constrained according to Aloni (2000)’s analysis of conceptual covers; the remaining flexibility seems correct to me. Moreover, the requirement on the context to make salient two perspectives for cross-identification provides a natural starting point for why certain DPs (e.g. functional nouns) obtain CQ-readings more easily, and why, as observed by Frana, scenarios involving a quiz of identification can save nearly any CQ. Independently from CQs, the question of what are acceptable conceptual covers is familiar from work on belief attribution, questioning and quantification.

Ref.: Aloni (2000) *Quantification under Conceptual Covers*. Amsterdam. Frana (2006) *The de re Analysis of Concealed Questions*. *Proceedings of Salt XVI*. Heim (1979) *Concealed Questions*. In: Bäuerle & al. (eds.) *Semantics from Different Points of View*. Berlin. Nathan (2006) *The Interpretation and Meaning of Concealed Questions*. Ms., MIT. Romero (2005) *Concealed Questions and Specificational Subjects*. *L & P* 28.