Existential-looking intermediate readings of wide-scope indefinites

(A) Since Fodor & Sag 1982 it is widely known that indefinites can scope out of their islands. However, the question of the proper treatment of intermediate readings, like in (1), is far from clear. Reinhart 1997 proposes that wide-scope indefinites contain a free variable over C(hoice) F(unction)s which can be existentially closed at any compositional level, (1c), so all intermediate readings are always possible. Kratzer 1998 argues that Reinhart’s mechanism overgenerates. Under Kratzer 1998, there is no existential closure for CFs. Instead, the context must provide a value for them. Intermediate readings are possible only when a CF takes an extra (Skolem) argument bound by a quantificational operator, (1d). This proposal is more restrictive and empirically well-founded than Reinhart’s, see Matthewson 1998, Kim 2003, Yanovich 2005, a.o.

(1) a. Every linguist studied every solution that some problem might have.
   b. For every linguist, there is a problem such that (s)he studied every solution for it.
   c. $\forall x [\text{ling}(x) \rightarrow \exists f[\forall y[\text{sol}_t(o,y,f(\lambda w.\text{problem}(w))) \rightarrow \text{studied}(x,f(\lambda w.\text{problem}(w)))]]]$
   d. $\forall x [\text{ling}(x) \rightarrow \forall z[\text{sol}_t(o,z,f(\lambda w.\text{problem}(w),x)) \rightarrow \text{studied}(x,f(\lambda w.\text{problem}(w),x)))]$

(B) However, Chierchia 2001 shows that intermediate existential closure cannot be dismissed since there are readings that cannot be captured by the Skolemization mechanism of Kratzer 1998. The crucial example is (2): A CF seems to be in the immediate scope of some D(ownward)-E(ntailing) operator. Chierchia herself proposes a trans-derivative economy account: “Use Kratzer-style CFs when possible; if an intended meaning cannot be expressed via Kratzer-style CFs, use Reinhart-style CFs”. Another alternative allowing to generate the relevant readings is that of the accommodation analysis of wide-scope indefinites, exemplified most notably by Geurts 2002. Under Geurts’s proposal, the indefinite introduces a presupposed discourse referent. The presupposed referent may be accommodated at any compositional level, including the immediate scope of DE operators, in which case we get exactly the reading (2b) that cannot be captured by Kratzer-style accounts.

(2) a. It is not the case that every linguist studied every solution some problem might have.
   b. The intermediate reading for (2a) that cannot be captured by Kratzer 1998:
      Not for every linguist $x$ there is a problem $y$ such that $x$ studied every solution to $y$.

(C) Both Chierchia 2001 and Geurts 2002 predict that all wide-scope indefinites must be able to get all intermediate readings. However, as Schwarz 2004 shows using data from VP ellipsis, all wide-scope indefinites are not alike: Some of them may have existential readings even in the absence of DE operators, while others may not. Namely, some has existential readings, and a certain does not, (3). (It is worth noting that Chierchia himself uses only some, not a certain, in his examples with DE operators.) I am adding to Schwarz’s evidence the data in (4). Again, the existential readings in (4c) are possible only for (4b) with some, not for (4a) with a certain, as shown by the continuation. The only intermediate reading available for (4a) is the Kratzer-style (4d), implying that there is a pairing of students and articles $f$. To sum up, existential, or, rather, existentially-looking readings, which cannot be captured by Kratzer 1998, are possible for some, but not for a certain. Chierchia 2001 and Geurts 2002 fail to predict such a difference.

(3) a. Tom ate the cookies some woman had brought. Bill didn’t.
   " Bill ate the cookies brought by a different woman.
   b. Tom ate the cookies a certain woman had brought. Bill didn’t.
      * Bill ate the cookies brought by a different woman.

(4) a. It is not true that every student read all papers cited in a certain article.
   # Bill did not find a suitable article.
   b. It is not true that every student read all papers cited in some article.
      " Bill did not find a suitable article.
c. Existential intermediate readings:
\[ \neg \exists x: (\text{article}(x) \land \forall y: \text{student}(y) \Rightarrow y \text{ read all papers cited in } x) \]
\[ \neg \forall y: \text{student}(y) \Rightarrow (\exists x: \text{article}(x) \land y \text{ read all papers cited in } x) \]
d. Kratzer-style intermediate reading:
\[ \forall y: \text{student}(y) \Rightarrow (y \text{ read all papers cited in } f(\text{article}, y)) \]

(D) I propose that this difference should be explained as the difference between indefinite pronouns that induce presuppositions and those that do not. Von Heusinger 2002 argues that specificity amounts to referential anchoring of the CF (or \(\varepsilon\)-term, in his own terms) to some discourse referent (cf. Hintikka 1986 and Kratzer 1998 for \textit{a certain}). Yanovich 2005 argues that such anchoring must be performed not via binding the Skolem argument to that individual, e.g., the speaker in Kratzer’s analysis of \textit{a certain}, but explicitly in the meaning of the pronoun. I argue that the difference between \textit{a certain} and \textit{some} is caused by the way such anchoring is performed. My meanings for the two pronouns are given in (5):

\begin{align*}
(5) \ a. \ [\textit{a certain}] &= \lambda P \lambda Q. Q(f(P)) \land CH(f) \land \text{anchor}(\text{speaker}, f) \\
 b. \ [\textit{some}] &= \lambda P \lambda Q. Q(f(P)) \land CH(f) \land \text{anchor}(x, f), x \text{ a presupposed discourse referent.}
\end{align*}

The crucial difference between the two meanings is that (5a) does not contain presuppositions, and thus only Kratzer-style intermediate readings are available for \textit{a certain}, hence intermediate readings in the scope of DE operators are impossible. (5b), on the other hand, presupposes the existence of a referent to which the function is anchored. The presupposed referent may be accommodated at any compositional level, including the immediate scope of negation. E.g., starting from (6a), we may get (6b), where \(x\) is accommodated just under the negation. If there is no referent to anchor the CF to, then there is no reasonable referent for the indefinite, cf. von Heusinger 2002, who analyzes the narrow scope reading of (7a) (his (52)) essentially as (7b) (this particular analysis makes sense, of course, only in case we adopt CF semantics for all indefinites, in line with Winter 1997).

\begin{align*}
(6) \ a. \ \neg \forall y: \text{student}(y) \Rightarrow (y \text{ read all papers cited in } f(\text{article}) \land CH(f) \land \text{anchor}(x, f)) \\
 b. \ \neg \exists x: \forall y: \text{student}(y) \Rightarrow (y \text{ read all papers cited in } f(\text{article}) \land CH(f) \land \text{anchor}(x, f))
\end{align*}

(7) a. William didn’t see a book.
\[ \neg \exists x: (\text{see}(\text{william}, f(\text{book})) \land \text{anchor}(x, f)) \]

As for specific indefinites headed by unmodified numerals, I argue that in order to get an out-of-island reading they need to contain a covert operator. While Reinhart, a.o., proposes to use just a mere CF in such cases, I use a CF with an anchoring condition – essentially a covert \textit{some} operator, as in (5b). So such indefinites are predicted to be able to scope out of their islands, but in the immediate scope of a DE-operator, as \textit{some}-indefinites.

To sum up, the only way to obtain out-of-island scope under a DE-operator is via presupposition accommodation. \textit{Some} and specific indefinites with unmodified numerals trigger the presupposition of existence of a discourse referent to which the choice function is “anchored”, a \textit{certain} does not; hence their differences with respect to existential-looking readings.