Semantics in generative grammar

The semantic project in general:

- **Describe precisely our intuitions about interpretation and relations.**
  
  *This is a yellow pencil entails this is a pencil and this is yellow.*

- **Arrive at those meanings in a compositional way.**
  
  The meaning of the whole arises from the meaning of the parts
  and how those parts are put together.

- **Work from the same representation as needed for syntactic explanation**
  
  (or have a good story for how and why it’s different—e.g., QR)

- **Provide an explanation for our intuitions about interpretation.**

- **Provide an explanation for cross-linguistic differences/constraints.**

1. Basic types:

   - `<e>` individual
   - `<t>` truth value
   - `<w>` possible world

2. Composite types:

   `<α,β>` is a valid type where α and β are valid types.

   (Basic types are valid types)

   `<α,β>` is a function that takes something of type `<α>`
   as an argument and returns something of type `<β>`.

3. Quinn spotted Wade

4. a. `[Quinn] = QUINN` type `<e>`
   b. `[Wade] = WADE` type `<e>`
   c. `[spotted] = λx.λy.SPOTTED(x, y)` type `<e, <e, t>>`
   d. `[spotted Wade] = λy.SPOTTED(y, WADE)` type `<e, t>`
   e. `[Quinn spotted Wade] = SPOTTED(QUINN, WADE)` type `<e, t>`

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Propositions as sets of possible worlds

\[ \begin{align*}
Q & \quad W \\
\text{Quinn spotted Wade} & \quad \text{(Quinn didn’t spot Wade)} \\
\end{align*} \]

(5) \[ [\text{Quinn spotted Wade}] = \lambda x.\text{SPOTTED}(\text{QUINN}, \text{WADE}). \]

Defining questions in terms of their answers (Hamblin 1958)

1. Who broke the timer?
2. (7) Wade broke the timer. \text{A possible answer}
3. (8) It always rains on the Fourth of July. \text{Not a possible answer}

**POSTULATE I:** An answer to a question is a statement.

**POSTULATE II:** Knowing what counts as an answer is equivalent to knowing the question.

**POSTULATE III:** The possible answers to a question are an exhaustive set of mutually exclusive possibilities.

4. (9) Who left?
Compositionality, and sets of propositions (Hamblin 1973, Karttunen 1977)

(10) \[ \{ \text{who left} \} = \{ \text{that Quinn left, that Wade left} \} \]

(11) \[ \{ \text{who} \} = \{ \text{QUINN, WADE} \} \]

Hamblin (1973)

(12) \[ \{ \text{left} \} = \lambda x. x \text{ left} \]

Karttunen (1977), more or less

Questions embedded under \text{know}, and exhaustivity

(14) I know that Quinn left.

(15) I know who left.

\# I know that everyone left.

(16) I know who left.

Groenendijk & Stokhof (1982, 1984)

\text{Quinn left.}

\text{I know that Quinn left.}

\text{Weak exhaustivity}

(17) I know who left.

Wade didn’t leave.

I know that Wade didn’t leave.

\text{Strong exhaustivity}

Heim (1994): \text{ANSPOSS} = \text{Hamblin’s set (possible answers)}

\text{ANSTRUE} = \text{Karttunen’s set (true answers)}

\text{ANSEXH} = "\text{ANSTRUE is… [whatever it is]."}

\text{ANSPOSS} = \text{easy to get from ANSTTRUE}

\text{ANSPOSS} = \text{easy to get from ANSTTRUE}

\text{ANSPOSS} = \text{less info. than ANSTTRUE}

(18) I am surprised who called.

(surprised about ANSTTRUE, not ANSEXH)

(19) John knows which students are identical with themselves.

(20) John knows which students live with their actual spouses.

A couple of other arguments in this domain

In favor of \text{ANSPOSS} over \text{ANSTRUE} (as a basic question denotation):

- Dayal, Lahiri on “indirect dependency” in wh-scope-marking constructions
  (What do you think? Who brought the salad?)
- Focus congruence—alternatives to \text{[Quinn]}\text{[who left]} surely aren’t only the true ones.

Partial answers

(21) Q. Who left?

A. Quinn left (alone).

B. Only one person left.

C. It’s unexpectedly cold in here.

\text{ANSTRUE} = \{ \text{Quinn left} \}

\text{ANSPOSS} = \{ \text{Quinn left, Wade left} \}

Both A and B are felt to be appropriate responses, and C is not.

A is a complete answer to the question, but B provides pertinent information.

Neither B nor C is in \text{ANSPOSS}, so how can we distinguish them?

Intuitively, B rules out some possibilities, but nothing easily visible in \text{ANSPOSS}.

On the partition view, this is easy:

A partial answer rules out at least one cell, a complete answer rules out all but one.

Lahiri (2002) undertakes the project of defining the concepts in a H/K (inspired) semantics, which essentially applies several operations to convert \text{ANSPOSS} into a partition, and then defines partial and complete answers in the same way as above.

The “mention-some” interpretation:

(22) Q. Where can I buy the \text{New York Times}?

A. (You can buy the \text{NYT} at the student center.

B. \# (You can) not (buy the \text{NYT}) at the Metro station.

(23) I know where you can buy the \text{New York Times}.

Both A and B should be partial answers. And why is A satisfying anyway?

Given the intertranslatability (for the most part) already seen, the problem is similar on all the approaches under consideration.

Beck & Rullmann (1999): \text{ANSMS} = \text{set of questions containing a member of ANSTTRUE}.
Conclusions?

At this point, we’ve seen some of the considerations that led to the views of question semantics. We might take H/K to have the upper hand, weakly anyway, due to the obstructed path from ANSEXH to ANSPOSS/ANSTRUE (Heim 1994), and from its close relation to the syntactic structures we’re friendly with.

Multiple questions, single pair and pair-list readings

When a question contains more than one wh-phrase, more interpretations arise.

(24)  Which student bought which book?
(25)  I know who bought what.

The natural interpretation here is about pairings of people and things. What I know is a list of pairs <α,β> (α, a person, β, a thing) that are related by commercial transactions.

Another possible reading of such questions looks for just a single pair.

There is some debate about whether this reading is available in the examples above, but it should be detectible in the following example.

(26)  I know who heard the rumor that John bought what.

An inherent complication in the judgment of single pair readings is that it’s probably always possible to answer with a (perhaps unexpectedly) short list. But it is of interest that sometimes pair-list readings appear to be ruled out (which is detectible).

One type of example that purports to show a single pair reading in English is this:

(27)  Who hit who first?

But these are special in that there is an unusually constrained set of possibilities, and perhaps should be treated in a somewhat different way.

[Survey mode: waning…]
One option is that it is a collection of questions—ah, heck, a set of questions. A \textit{second-order question}. If this is a different type from a single question, we can name a pragmatic condition for dealing with them (see also Higginbotham 1993).

(32) \textbf{Multiple Question Recognition}

If the semantic value of an utterance is of type \textit{<pt,>}, then the utterance is a (pair-list multiple) question.

To respond: For each member set \textit{A}, respond to \textit{A}. (via \textit{SQR})

Generators, sorting keys, the exhausted term, … It has been observed (Baker 1968, Comorovski 1996, Dayal 1996, É. Kiss 1993) that there is an asymmetry between the two \textit{wh}-phrases in a multiple question: Only one seems to need to be exhausted in the pair-list answer. The choice was (it seems) made implicitly in my choice above to delineate the questions as I did.

(33) Speaker \textit{A}: We’re organizing singles tennis games between men and women.

There are \textit{three} men interested in playing against women, namely Bill, Mike, and John. But there are \textit{four} women interested in playing against men, namely Mary, Sue, Jane, and Sarah.

Speaker \textit{B}: So, which man is playing against which woman?

(34) Speaker \textit{A}: We’re organizing singles tennis games between men and women.

There are \textit{four} men interested in playing against women, namely Harry, Bill, Mike, and John. But there are \textit{three} women interested in playing against men, namely Mary, Sue, and Jane.

Speaker \textit{B}: \#So, which man is playing against which woman?

\textit{Idea}: The answer needs to provide a pairing for all of the men.


(‘For each man \textit{x}, which woman is \textit{x} playing against?’)

Comorovski (1996) notes that this can be answered with a universal quantifier in the answer: \textit{Every man is playing against his wife} (suppose that the men and women are related appropriately).

Dayal (1996) proposes that the wide-scope-\textit{wh}-phrase sets the domain for a function whose range is set by the narrow-scope-\textit{wh}-phrase, and makes the pragmatic assumption (more or less like \textit{MQR}) that a value must be assigned for everything in the domain.

On the proposal suggested here (using \textit{MQR}), the universality comes from the pragmatic rule, rather than any more explicit “conversion” in the semantics. (It remains to be seen how the decision is made as to which one does the exhausting—I’ll come back to this).

It also remains to be seen how a single pair interpretation comes about, but here’s a suggestion in that direction: Single-pair questions seem to be pretty much like single questions, you pick one and you’re done. This would follow if we had something like this:

\[
\begin{align*}
&\text{Who bought what?}^\text{<pt>} \\
&\{\text{that Quinn bought milk, that Wade bought milk, that Quinn bought beer, that Wade bought beer}\}
\end{align*}
\]

I hope to come back to the syntactic/semantic proposal I’ve made in the past concerning how this might come about.

\begin{center}
\textbf{Pair-list interpretations of multiple \textit{wh}-questions}
\end{center}

There seem to be various syntactic conditions on the availability of both single pair and pair-list readings of multiple \textit{wh}-questions. Here’s something of a survey.

*\textit{PL}, when a \textit{wh}-in-situ is in a movement island (Dayal 2002, Garrett 1996).

Except \textit{wh}-islands… (Baker 1970)

Except where there is an intermediate (finite, declarative) clause… (Dayal 1996)

(35) Who bought what for Pat? \hspace{1cm} \textit{PL} ok

(36) Which student read the book that which professor wrote? \hspace{1cm} \textit{*PL} (\textit{SP} only)

(37) Who heard a rumor that Chris bought what? \hspace{1cm} \textit{*PL} (\textit{SP} only)

(38) Which student got a headache after she read which book? \hspace{1cm} \textit{*PL} (\textit{SP} only)

(39) Which linguist will be offended if we invite which philosopher? \hspace{1cm} \textit{*PL} (\textit{SP} only)

(40) Which student knows where Mary bought which book? \hspace{1cm} \textit{PL} ok (\textit{student-book})

(41) Which student said that John knows where Mary bought which book? \hspace{1cm} \textit{*PL}

*\textit{PL} on Superiority violations (Barss 2000)

(42) Which man do you think helped which woman yesterday? \hspace{1cm} \textit{PL} ok

(43) Which woman do you think which man helped yesterday? \hspace{1cm} \textit{*PL}
Sometimes there are suggestions that PL disappears across clauses (Dayal 2002)

(44) Which student doesn’t believe that Mary bought which book? ?PL
(45) Which student believes that Mary didn’t buy which book? ?PL
(46) Which student believes that Mary read which book? ?PL
(47) Which student said that John believes that Bill read which book? ?PL

*SP with overt wh movement (Bošković 2002):

(48) Il a donné quoi à qui? French, SP ok
he has given what to whom
‘What did he give to whom?’
(49) Qu’a-t-il donné à qui? French, *SP
what has-he given to whom
‘What did he give to whom?’
(50) Koj kakvo e kupil? Bulgarian, *SP
who what is bought
‘Who bought what?’
(51) Ko je šta kupio? SC, SP ok “wh movement” a nuanced concept
who is bought
‘Who bought what?’
(52) Kto četo kupil? Russian, SP ok (but contra Grebenyova 2004)
who what bought
‘Who bought what?’

Fronting lower wh phrase over higher one, *PL (Hagstrom 1998, Bošković 2002):

(53) Dare-ga kinoo nani-o katta no? Japanese, PL ok
who-nom yesterday what-acc bought Q
‘Who bought what yesterday?’
(54) Nani-o kinoo dare-ga katta no? Japanese, *PL
what-acc yesterday who-nom bought Q
‘Who bought what yesterday?’
(55) ko je šta kupio? SC, PL ok
who is what bought
‘Who bought what?’
(56) Šta je ko kupio? SC, *PL
what is who bought
‘Who bought what?’

Perhaps English Superiority violations go here too…

But not German… (Bošković 2002, Citko & Grohmann 2001)

(57) Was hat wer gekauft? German, PL ok
what has who bought
‘Who bought what?’

Possibly not a data point: *SP in Sinhala (Hagstrom 1998:73)?

Footnote in Citko & Grohmann (2001): D-linked Superiority violations in Bulgarian and Romanian seem to allow—nay, prefer—a PL reading. They suggest this is a general property of multiple wh-fronting languages.

(58) Koga kniga koj čovek e kupil? Bulgarian, PL ok
which book who person is bought…?
‘Which book did which person buy?’
(59) La care cind te ai gîndit? Romanian, PL ok
the which when…?
‘Which one have you thought of when?’


(60) Dare-ga nani-o motte kita no? Japanese, PL ok
who-nom what-acc brought Q
‘Who brought what?’
(61) Dare-ga nani-o motte kita? Japanese, *PL
who-nom what-acc brought
‘Who brought what?’

*PL if wh-word in Japanese scrambled over an “intervener” (Hagstrom 1998:77).

Varying interpretations have been given to subsets of these facts. Island facts suggest that movement of something is required for PL.
Clause boundedness (“wh triangle”) suggests involvement of QR (Dayal 2002).
Fronting lower over higher/Superiority violations: one needs to be higher for PL.
Loss of SP: Only account I’m aware of is Bošković’s (2002) RM-type account.
(Q intervenes for wh movement, so only a wh outside the scope of Q can move: PL)
The interpretation of \textit{wh}-in-situ

At the interface of the syntax and semantics of \textit{wh}-questions, a longstanding issue has been whether \textit{wh}-phrases can/must move (perhaps covertly—hence the problem) to a high clausal position (SpecCP or thereabout) in order to participate in the formation of a question.

The syntactic considerations are familiar: \textit{Wh}-in-situ allowed inside movement islands, so:

\begin{itemize}
  \item \textit{Wh}-in-situ doesn’t have to move, it can be interpreted where it sits.
  \item \textit{Wh}-in-situ does have to move covertly, but can at that point ignore islands.
  \item \textit{Wh}-in-situ does have to move covertly, but can take its whole island with it.
\end{itemize}

Closer investigation in relatively recent work suggests—as closer investigation always seems to—that what may have appeared simple is in fact complex.

Re: unhappiness of \textit{how}, \textit{why}, … \textit{in situ} in islands may either have to do with syntactic status as adjuncts or semantic eligibility for whatever mechanism allows interpretation of \textit{wh}-in-situ. Just need to say \textit{something} about them.

If the \textit{wh}-in-situ is to be interpreted where it sits, how will this happen?

\begin{itemize}
  \item “Unselective” binding from C? (Not completely unselective, a bit vague).
    But in Karttunen’s semantics, these are basically indefinites.
    One can imagine a couple of ways to do this.
    \item “Fake” the movement by directly generating a coindexed operator.
      (Is the interpretation of the \textit{wh}-word the same both moved and unmoved?)
    \item No communication with C at all? (recall Hamblin’s 1973 system)
\end{itemize}

Choice functions and parallels to indefinites

It is natural to draw a parallel between \textit{wh}-phrases and indefinite pronouns (as Karttunen did in his semantics). Morphological similarities (see Haspelmath (1997), Bhat (2000), Cheng (1997), …), similar disrespect for islands (and for the clauseboundedness of QR).

Reinhart (1998) points out a problem with just binding \textit{wh}-phrases \textit{in situ} from C:

\begin{itemize}
  \item (62) Which linguist will be offended if we invite which philosopher?
  \item (63) *For which \textit{x}, \textit{y}: if we invite \textit{y} and \textit{y} is a philosopher, \textit{x} will be offended.
  \item (64) Lucie will be offended if we invite Donald Duck.
\end{itemize}

The problem is that \textit{philosopher} and \textit{invited} end up having the same status, but \textit{philosopher} should be restricting the potential invitees we check. It’s too easy for (63) to be true.

Had it been interpreted with covert movement, it would have been correct:

(65) For which \textit{x}, \textit{y}: if we invite \textit{y}, \textit{y} a linguist, \textit{y} a philosopher: if we invite \textit{y}, \textit{x} will be offended.

So, how can the restrictor be interpreted properly—as if moved, but without moving it?

Reinhart’s proposal: A choice function:

\begin{itemize}
  \item (66) \textbf{Choice function}: A function that applies to a nonempty set and returns a member of that set.
\end{itemize}

So \textit{f} (philosophers) is guaranteed to be a philosopher (where \textit{f} is a choice function). And thus, we can existentially bind the choice function from outside the \textit{if}-clause (“there is a way to choose”) and still get the restriction right:

(67) For which person, \textit{x}, and way to choose, \textit{f}: if we invite \textit{f} (philosophers), \textit{x} will be offended.

Quite a bit of work has been done concerning choice functions, generally refining in the direction of complicating them (adding a pronominal/bindable argument, making them intensional in various ways, debating where/if “existential closure” can occur). See especially Reinhart (1997), Winter (1997), Kratzer (1998), Matthewson (1999).

Alternative semantics and island-insensitivity

Another way to interpret \textit{wh}-in-situ is to return to Hamblin’s (1973) view—where the \textit{wh}-phrase did all the work on its own behalf anyway (contributing its sethood to the composition directly, without any need to “talk to C”). This kind of view has undergone something of a revival recently, and also has a great deal in common with Rooth’s (1985, 1992) account for focus. See Hamblin (1973), Rooth (1985, 1992), Rullmann & Beck (1998), Hugstorn (1998), Shimoyama (2001), Kratzer & Shimoyama (2002), Sternefeld (2001), Yanovich (2005), and others.
The way this works is by fixing the rules of composition to be sensitive to sets—and when a function tries to compose with a set of arguments (or a set of functions tries to compose with an argument, or . . . etc.), the function(s) is/are applied pointwise to the argument(s), resulting in a set of whatever the function(s) return.

(69) bought {cheese, milk, eggs} =
    {bought cheese, bought milk, bought eggs}
(70) {bought cheese, bought milk, bought eggs}(John) =
    {John bought cheese, John bought milk, John bought eggs}

This is the same set of propositions you’d get from Karttunen’s system, essentially:

(71)  \( \lambda x . p \) = \text{bought}(\text{John}, x) \\

No island effects are expected anywhere in this, since no movement is involved. Moreover, movement is basically irrelevant to the computation (as Hamblin noted).

Quite straightforwardly deals with \( wh \)-words in islands in Japanese, or even the ability to ask \( wh \)-questions in Japanese without a Q particle. Aside to which we will return: If you have two \( wh \)-phrases, you’ll expect a single pair reading.

Rullmann & Beck (1998) argue that the entire \( wh \)-phrase (or at least a \( which \)-phrase) must be interpreted in situ (so contra covert movement approaches of any kind—in fact, if you do move the \( wh \)-phrase, you’d better put it back where you found it).

To solve the Donald Duck problem, R&B propose that \( which \)-phrases have an existence presupposition just like definites, effectively rendering the crucial DD question as:

(72)  For which \( x, y \): if we invite the philosopher \( y, x \) will be offended.

The philosopher \( y \) is undefined if \( y \) is not a philosopher, so non-philosophers no longer get to participate in the propositions picked out by (62).

With those presuppositions in place, R&B investigate the projection properties and show that the presuppositions appear to project from the position of the \( wh \)-phrase in situ (even, in fact, for a \( which \)-phrase that has overtly moved).

Presupposition projection: Embedded under \( want \), presupposition projects to higher clause as a presupposition about the wanter’s beliefs (73). Embedded under \( know \), presupposition projects to higher clause proper. (Heim 1992, Karttunen 1974),

(73) Bill wants to catch the blue space alien.
(74) Bill knows he caught the blue space alien.

R&B observe that the presuppositions in (75–76) project as if \( which space alien \) is evaluated in the embedded clause.

(75) Which space alien does Bill want to catch? Speaker can think: \( \neg \exists \text{aliens} \).
(76) Which space alien does Bill know he caught? Speaker must think \( \exists \text{aliens} \).

**LF pied piping**

Another way to deal with \( wh \)-words in islands (e.g., in Japanese) is LF pied piping, moving the whole island as if it were a \( wh \)-phrase. See Nishigauchi (1990), Pesetsky (1987), Choe (1987). But there’s a very serious problem, see von Stechow (1996), so—despite having inspired a fair amount of effort—LF pied-piping isn’t really very safely off the ground yet.

(77) Whose book did you borrow?
(78) *For whose book \( x \): You borrowed \( x \).
(79) For which person \( x \): You borrowed \( x \)’s book.

Richards (2000) observes—perhaps Watanabe also observed this—that multiple \( wh \)-words both in the same island have to take the same scope. This calls for some explanation, LF pied-piping has a means to explain it.

**Combining choice functions with alternative semantics** (Hagstrom 1998)

Enough is in place that I can also outline the story I’ve been known to push (Hagstrom 1998) and connect it to other things mentioned along the way.

The story, in basic form

An existential quantifier over choice functions (\( Q \)) is (often) involved in questions. This quantifier moves, probably to \( C \) or thereabouts, generally from by a \( wh \)-word

The set the choice function chooses from is generated by Hamblin-style \( wh \)-words (which denote sets that propagate until “caught” by the choice function).
(80) \( \lambda p \exists f. p = \text{John bought } f(\text{WHAT}) \quad \text{WHAT} = \{ x : x \text{ is a relevant thing} \}

Movement is involved, but is assumed to respect islands, so if a \( wh \)-phrase is inside an island the choice function quantifier must move from outside the island (propagating alternatives will take care of the semantics inside the island).

The set of possible answers we get this way is the same one we would have gotten with covert island-apathetic movement.

(81) \{ You borrowed John’s book, you borrowed Mary’s book, \ldots \}

This basically dodges the LF pied piping problem, so long as we don’t assume that the location of the choice function variable dictates what is being sought after in the question. Rather, we need to suppose something like: the question is “about” the thing that is varying across the possible answers, and how to translate that into what is an appropriate short answer remains as a project.

Combining choice functions with alternative semantics might appear to be overkill, but it isn’t really. Alternative semantics alone will not give you second-order questions: you will get only single pair readings for multiple questions. E.g., Japanese multiple questions without \( Q \) have only a single pair reading. So \( Q \) is involved in making available the PL reading.

(82) who bought what
(83) who bought \{ milk, cheese \}
(84) who \{ bought milk, bought cheese \}
(85) \{ Pat, Chris \} \{ bought milk, bought cheese \}
(86) \{ Pat bought milk, Pat bought cheese, Chris bought milk, Chris bought cheese \}

The choice function “catches” the propagating set of alternatives and returns it to a singleton/non-set denotation (the set of alternatives provided the choice set, but the choice function makes just a single choice). Very much like the \( \sim \) in Rooth’s focus semantics.

But once that happens, if another \( wh \)-phrase is encountered, the alternatives start propagating again:

(87) \( \lambda p \exists f. p = \text{John bought } f(\text{WHAT}) \)
(88) \( \lambda p \exists f. p = \{ \text{Pat, Chris} \} \text{ bought } f(\text{WHAT}) \)
(89) \{ \lambda p \exists f. p = \{ \text{Pat, Chris} \} \text{ bought } f(\text{WHAT}), \lambda p \exists f. p = \text{Chris bought } f(\text{WHAT}) \}

(90) \{ \text{What did Pat buy?}, \text{What did Chris buy?} \}

So, the PL reading is vulnerable: It requires that \( Q \) “split” the \( wh \)-phrases from one another.

Questions/issues:

Predicts no true “list of triples” readings, though it is a bit hard to test.

A possible issue (which I was reminded of by Richard Larson; cf. Kratzer 1991, the question has to do with covarying options): Not much to say at the moment, although Kratzer’s (1991) / Wold’s (1996) solution concerning designated indices might be employable in some fashion for questions just as for focus.

(91) I only went to [Tanglewood] because you did \textcolor{red}{go to Tanglewood}.
(92) Where did you go because I did?

Properly defining flexible \( \lambda \)-abstraction is harder than one might think (Kratzer & Shimoyama 2002, Shan 2004).

**Intervention effects (Hagstrom 1998 and other views)**

Part of the story involves movement of \( Q(\exists f) \) to leave a choice function variable behind. And part of the reason I claimed it starts low (by a \( wh \)-word or, if necessary, \( just \) outside an island containing a \( wh \)-word) is that there are “intervention effects”—in Japanese with other things like \( Q \), particularly other things that seem to have \( Q \) as a morphological component (e.g., \textcolor{red}{dareka} ‘someone’, \textcolor{red}{X-ka Y ‘X or Y’}).

I took it to be plain old Attract Closest/Shortest Move/Relativized Minimality—something is driving \( Q \) to move up into the C region, and \( Q \) to be closer than any other \( Q \)-like thing (includes \textcolor{red}{mo}, other \textcolor{red}{kas}, and some other things).

(93) a. \( ^* [\textcolor{red}{John-ka} \textcolor{red}{Bill}-ga} \textcolor{red}{nani-o} \textcolor{red}{nomimasita} \textcolor{red}{ka}? \quad \textcolor{red}{ka \ ‘or’ intervenes} \textcolor{red}{John-or} \textcolor{red}{Bill-NOM} \textcolor{red}{what-ACC} \textcolor{red}{drank} \quad \textcolor{red}{Q} \quad \textcolor{red}{{‘What did John or Bill drink?’}} \)

b. \( \textcolor{red}{nani-o,} [\textcolor{red}{John-ka} \textcolor{red}{Bill}-ga} \textcolor{red}{t_i} \textcolor{red}{nomimasita} \textcolor{red}{ka}? \quad \textcolor{red}{scrambling saves it} \quad \textcolor{red}{what-ACC} \textcolor{red}{John-or} \textcolor{red}{Bill-NOM} \textcolor{red}{drank} \quad \textcolor{red}{Q} \quad \textcolor{red}{{‘What did John or Bill drink?’}} \quad \textcolor{red}{{(the meaning is legit)}} \)
c. \textit{dare-ga [sake-ka biiru(ka)]-o nomimasita ka?}  
\textit{Who drank either sake or beer?}  
(Hoji 1985)

If that’s all there is to intervention effects, then perhaps it doesn’t need much more discussion in this talk. But there have since been some other suggestions.

Not “since”, but this kind of intervention effect was originally analyzed by Beck (1996) as being a constraint against LF movement over “quantificational barriers” — syntactic again.

Lee & Tomioka (2001) observe that there seems to be a correlation between what counts as an intervenor and what makes a legitimate topic (marked with \textit{wa} in Japanese, \textit{nun} in Korean). They propose (essentially), that something to the left of a \textit{wh}-phrase will need to be part of the topic and this is not an option for the intervenors.

Kim (2002) proposes that what makes an intervenor is its focus properties. Languages do appear to differ with respect to what counts as an intervenor, but things like \textit{only} and \textit{even} are popular choices.

Neither of these approaches really preclude the syntactic view (perhaps it is a focus feature that is causing the intervention — fine, if so). Beck (2003) proposes a relatively different and interesting way to think about it, more rooted in the semantics.

Based on Kim’s (2002) idea that focus is what makes an intervenor, Beck capitalizes on the similarity between question denotations and focus alternatives.

(94) What did you give to Chris?
(95) I only gave [A LAMP] to Chris.
(96) [I gave a couch to Chris, I gave a lamp to Chris, I gave a table to Chris]

Same sets, perhaps same mechanism. Perhaps: \textit{what} has an undefined ordinary semantics, and the alternatives are strictly in the focus semantics. Q up in C will have the job of bringing the focus semantics back into the ordinary dimension — but if something (like ~) “catches” the focus alternatives too soon, before they reach C, then C will have nothing to convert and the intervention collapses.

This is an interesting proposal, and goes relatively nicely with the morphological facts of Sinhala focus and question constructions (both share the same verbal morphology, not found elsewhere in the language). It doesn’t seem less stipulative with respect to language variation — in fact, it may be less flexible in an undesirable way. And, again, if there is a syntactic feature correlate to being focus sensitive in this way, then the RM account of intervention effects I proposed is still describing the same thing.

\textbf{Some references (many not actually referred to here, probably some missing too…)}


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