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Interpretation of Slavic Multiple Wh-Questions*

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1. Pair-List and Single-Pair readings and their distribution

Interrogative clauses with more than one wh-phrase can have a Pair-List (PL) or a Single-Pair (SP) reading. A question with the intended PL reading would be felicitous in a scenario like in (1) and a felicitous response to such a question would involve listing propositions involving ordered pairs as in (3).

(1) *PL Scenario: John is at a formal dinner where there are diplomats and journalists. Each journalist was invited by a different diplomat. To find out the details, John asks the host:*

(2) Who invited who to the dinner?

(3) Mr. Smith invited Mr. Jones, Ms. Black invited Mr. Green, etc.

A scenario corresponding to the SP reading is given in (4). Since English lacks SP reading in non-d-linked wh-questions, a d-linked question is used instead in (5) with the felicitous single-pair response in (6).¹

(4) *SP Scenario: John knows that a very important diplomat invited a famous journalist to a private dinner. To find out the details, John asks the caterer:*

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¹ D-linked wh-questions, as in Pesetsky (1987), will not be analyzed in this paper; (5) was used only to demonstrate the SP reading in English.

- (5) Which diplomat invited which journalist to the dinner?
 (6) Ms. Black invited Mr. Smith.

Besides restrictions within a single language (as we just saw in English), the distribution of PL/SP readings is subject to crosslinguistic variation, which was pointed out by Hagstrom (1998) and Bošković (2001a) who extends Hagstrom's study of *wh*-in-situ languages to languages with overt *wh*-fronting. Thus, a SP reading is unavailable in the English question in (2), repeated in (7).² However, it is freely available in Serbo-Croatian (SC) (8). That is, unlike (7), the question in (8) is felicitous in both PL and SP scenarios. Bulgarian patterns with English in this respect (9). Outside the Slavic group, German patterns with English while Japanese patterns with SC (10) – (11).

- (7) *PL/*SP*
 Who invited who to the dinner?

- (8) *PL/SP*
 Ko je koga pozvao na večeru? SC
 who aux whom invited to dinner
 'Who invited who to the dinner?'

- (9) *PL/*SP*
 Koi kogo e pokanil na večerjata? Bulgarian
 who whom Aux invited to dinner
 'Who invited who to the dinner?'

² Dayal (2002) presents an apparent counterexample to this observation, attributing it to C.L. Baker. '*Who hit who first?*' is felicitous on a single-pair reading. However, note that what is asked about here is not the identity of the hitter and the hittee, but rather the direction of the hitting event (i.e. Did John hit Bill or vice versa?). This is quite a different reading from the one we consider a SP reading in our discussion in that it presents a choice between two pairs already established in the discourse. Thus, it is important to filter out this reading when testing the availability of the SP reading (cf. Comorovski (1996) for more discussion of exceptions to the generalization in question).

- (10) *PL/*SP*
 Wer hat wen zum Abendessen eingeladen? German
 who Aux whom to dinner invited
 ‘Who invited who to the dinner?’
- (11) *PL/SP*
 Darega dareo syokuzini manekimasita-ka? Japanese
 who who dinner invited-Q
 ‘Who invited who to the dinner?’

It will be the goal of this paper to account for these crosslinguistic facts.^{3,4} One thing to note about the overall pattern is that the PL reading seems to be the unmarked case. That is, we do not find a language that has the SP reading but lacks the PL reading in *wh*-questions of the type presented above. There are, however, constructions in certain languages that seem to force SP readings. One such construction is discussed in Hagstrom (1998) and Bošković (2001a): a lower *wh*-phrase is fronted over the higher *wh*-phrase, so-called Interpretive Superiority. SP readings can also be forced in the context of scope intervention effects (cf. Hornstein (1995) and Pesetsky (2000) for details). I will isolate from these interesting phenomena for the purposes of this paper (cf. Grebenyova (in preparation) for more discussion of Interpretive Superiority).

Bošković (2001a) observes that SP readings are unavailable in the multiple interrogatives where overt *syntactic wh*-movement (i.e. the movement of a *wh*-phrase to Spec,CP in order to check the uninterpretable [+*wh*] feature of C⁰) takes place. Using Superiority effects as a diagnostic for syntactic *wh*-movement, Bošković

³ Hagstrom (1998) and Bošković (2001a) report these facts with *Who bought what?* questions. My switching to ‘*who-who*’ questions and corresponding scenarios was motivated by an interfering factor in Russian questions of *who-what* type, which will be discussed in section 3. A control testing of the new examples and scenarios was done, replicating the parallel judgments from Hagstrom and (1998) and Bošković (2001a).

⁴ My German informants were consistent in their judgments, confirming the results of Bošković (2001a) and Citko and Grohman (2001). However, Roland Meyer (p.c.) expresses doubt about the impossibility of SP reading in this case.

(1997), (cf. Bošković 2002), identifies English, German and Bulgarian wh-questions as such contexts. On the other hand, all contexts in Japanese and certain contexts in SC, as in (8), are treated as not involving syntactic wh-movement at all. SC is argued to have covert C^0 insertion in these contexts. On this account, multiple wh-fronting is viewed as multiple instances of focus movement to a position lower than C^0 , triggered by an uninterpretable [+focus] feature on wh-phrases themselves. It is in these contexts, lacking syntactic wh-movement, that SP readings are allowed freely, as data in (7) – (11) suggest.

Thus the questions arise: why is the SP reading unavailable in these languages and what are the licensing requirements for the SP reading? Bošković (2001a) attempts to answer these questions by proposing that in languages with overt syntactic wh-movement, a Relativized Minimality violation occurs, resulting in the loss of the SP reading. I will present this account next and then show that this solution is not general enough to account for other losses of SP reading. I will then propose an alternative analysis based on the lexical properties of an interrogative morpheme (Q-morpheme) and try to generalize it to all the cases of the absence of SP reading.

2. Relativized Minimality Account

Bošković (2001a)'s account of the restrictions on the occurrence of the SP reading involves three major aspects: (a) a specific analysis of syntactic wh-movement developed in Bošković (1997, 2002), Citko (1998), Stjepanović (1998) and Stepanov (1998), (b) Hagstrom (1998)'s semantics of wh-questions, and (c) Relativized Minimality.

2.1. Syntactic wh-movement

Adopting the economy approach to Superiority as formulated in Chomsky (1995), (cf. Rizzi 1990), many researchers have argued that Superiority can be used as a diagnostic for syntactic wh-movement (Bošković 1997, 2002, Citko 1998, Stepanov 1998,

Stjepanović 1998). One source of evidence for this analysis is that in a multiple *wh*-fronting language like Bulgarian, only the highest *wh*-phrase is sensitive to Superiority, with the other *wh*-phrases being freely ordered (Bošković 1997, 2002) as shown in (12-13), taken from Stepanov (1998).

- (12) a. Kogo kakvo e pital Ivan? Bulgarian
 whom what is asked Ivan
 'Who did Ivan ask what?'
 b. *Kakvo kogo e pital Ivan?
- (13) a. Koj kogo kakvo e pital?
 who whom what is asked
 'Who asked who what?'
 b. Koj kakvo kogo e pital?

This contrasts with SC, Polish and Russian, which do not show Superiority effects in these contexts and therefore are considered not to involve overt syntactic *wh*-movement (i.e. *wh*-movement to Spec,CP) in these cases (14-15), but rather involve focus fronting of all *wh*-phrases.

- (14) a. Kogo što Ivan sprosil? Russian
 whom what Ivan asked
 'Who did Ivan ask what?'
 b. Što kogo Ivan sprosil?
- (15) a. Kto kogo što sprosil?
 who whom what asked
 'Who asked who what?'
 b. Kogo kto što sprosil?
 c. Kto što kogo sprosil?

Recall the observation from the end of section 1 that it is the languages that involve syntactic *wh*-movement that lack the SP reading. It is this observation that Bošković (2001a) attempts to explain. We now turn to a brief overview of the semantics of

multiple wh-questions developed by Hagstrom (1998) providing specific syntactic structures for PL and SP readings. The account of Hagstrom (1998) was adopted in Bošković (2001a) and will be adopted here.

2.2. Semantics of PL/SP readings (Hagstrom 1998)

Unlike the semantic value of a statement, the semantic value of a question cannot be a truth value. Semantically, a question denotes what kind of statements would constitute its possible answers. Therefore, it was cleverly proposed by Hamblin (1973) that the semantic value of a question is a set of propositions that constitute all its possible answers (semantic type $\langle pt \rangle$).⁵ For example, the meaning of the question *What book did John buy?* is the following set of propositions {John bought *War and Peace*, John bought *Syntactic Structures*, etc.}.

Hagstrom (1998) adopts this treatment of questions for Yes/No questions, single wh-questions, and multiple wh-questions with the SP reading. He then proposes that wh-questions with the PL reading are different in that they represent a *set of questions* (i.e. a *set of sets* of propositions: $\langle pt, t \rangle$).

Wh-phrases are treated as sets of individuals (type $\langle et \rangle$). Q-morpheme has an important role by being interpreted as a quantifier over choice functions. By movement from the clause internal position to C^0 , Q-morpheme leaves behind a variable whose value ranges over generalized choice functions (type $\langle at, \alpha \rangle$), choosing one member of whatever set it is merged with.

Hagstrom assumes two different syntactic positions for the Q-morpheme in PL and SP readings. In a question with a PL reading, it merges with the lowest wh-phrase (16a), and in a question with the SP reading, it merges in some position F^0 above the highest wh-phrase (16b). Hagstrom's analysis actually involves a movement step from the lower position of Q to the higher position (what he calls *Q-migration*). It is, however, an island- and intervention-insensitive movement operation. I will ignore it for

⁵ In this notation, adopted from Hagstrom (1998), p represents a complex type $\langle st \rangle$.

the purposes of my discussion. I will now briefly sketch how each reading is derived compositionally.⁶

- (16) a. [_{CP} Q_j-C⁰ ... [_{TP} ... wh1 ... V ... t_j wh2 ...]] *PL*
- b. [_{CP} Q_j-C⁰ ... [_{FP} t_j-F⁰ [_{TP} ... wh1 ... V ... wh2 ...]]] *SP*

In the derivation of the PL reading, the choice function (t_j) takes *wh2* (a set of individuals) as its argument returning an individual ($\langle e \rangle$). Further, the semantic result of combining the verb with its complement is a property ($\langle et \rangle$). In order to combine this set of properties with the set represented by *wh1*, Flexible Functional Application (FFA) applies the property to every individual in that set and puts the result into a set. This is a set of propositions ($\langle pt \rangle$) that are possible answers to a question like *Who bought what?* The movement of the Q-morpheme to C⁰ evokes λ -abstraction over this set of propositions turning it into a set of propositions abstracted over choice functions ($\langle cp, t \rangle$), where c stands for a choice function.⁷ The complex head [Q-C⁰] of type $\langle cp, pt \rangle$ then applies to this set of unsaturated propositions via FFA producing a set of sets of propositions $\langle pt, t \rangle$.⁸ Note that the interrogative head [Q-C⁰] that normally turns an unsaturated proposition into a set of propositions (for example, in single wh-questions), here, combined with a *set* of propositions via FFA, turns each proposition in that set into a new set of propositions and puts the result into a set, producing this way a set of sets of propositions. Each set of propositions is the denotation of a question about each individual in the set represented by *wh1* (eg. *Who did Mr. Smith invite?*, *Who did Ms. Black invite?*, etc.).

In the SP reading derivation, the choice function variable is not there to reduce the set represented by *wh2* because the Q-morpheme moves from the position above both wh-phrases. As a result, the verb composes with *wh2* returning a set of properties.

⁶ See Hagstrom (1998) for the explicit formal semantic derivations.

⁷ Hagstrom formulates and uses 'flexible-lambda-abstraction' in this case.

⁸ Internally to [Q-C⁰], C⁰ takes Q as an argument (cf. Hagstrom (1998) for details).

Then *whI* is taken as an argument via FFA, giving back a set of propositions pairing each individual in the set of *whI* with each property ($\langle pt \rangle$). The choice function then picks one member of that set, resulting in a single proposition ($\langle p \rangle$). Via λ -abstraction, we get an unsaturated proposition ($\langle cp \rangle$). Combining it with the complex head $[Q-C^0]$ results in just a set of propositions and crucially not a set of sets of propositions as we saw in the PL derivation.

The major difference between the two derivations is that there is no choice function variable in the PL derivation immediately after the highest *wh*-phrase is combined with a set of properties. This allows the set of individuals denoted by *whI* propagate through the derivation. Crucially, this is not a possibility in the SP derivation due to the choice function reducing the set of propositions to a single proposition, which becomes the input to further computation. Thus, what licenses a SP reading semantically is the presence of the Q-morpheme above both *wh*-phrases.

2.3. *Relativized Minimality account (Bošković 2001a)*

Having reviewed the semantic analysis of Hagstrom (1998), we can now consider the proposal of Bošković (2001a) of how to exclude the SP reading in the contexts described in section 1. Recall that the generalization about the distribution of the SP readings seems to be that it is absent in the contexts with obligatory syntactic *wh*-movement (i.e. Bulgarian, English, German, etc.).

Bošković (2001a) argues that syntactic *wh*-movement in the derivation of the SP reading creates the Relativized Minimality violation. That is, the movement of the *wh*-phrase in English and Bulgarian to Spec,CP violates Relativized Minimality by crossing the Q-morpheme. Here Bošković suggests that the Q-morpheme, like C^0 , and *wh*-phrases, carries [+*wh*] feature. The derivation of the question in (17) on the SP reading is shown in (18).

(17) Who invited who to the dinner? *SP

(18) * $[_{CP} \textit{Who}_j C^0 [_{FP} \textbf{Q-F}^0 [_{TP} t_j \dots \textit{invited} \dots \textit{who} \textit{ to the dinner}]]]]$

The derivation in (18) is ruled out due to a Relativized Minimality violation; hence the SP reading is unavailable in English in this context. This effect can be generalized to all the languages with overt syntactic wh-movement. Bošković also assumes here that in wh-fronting languages, the wh-phrases in a language with overt wh-movement are interpreted in the base-generated position and not in the position they move to. It is also assumed that the Q-morpheme moves to C^0 covertly. If it moved overtly, it would be crossing the higher wh-phrase in PL reading derivation.

3. Limitations of the Relativized Minimality account

First, there seems to be a conceptual problem with the proposal that the Q-morpheme carries a [+wh] feature. What kind of feature is that? Since it never gets checked against another [+wh] feature, it must be an interpretable feature. There are [+wh] features on wh-phrases because they are obviously considered interpretable at LF. However, what does it mean for a Q-morpheme to have an interpretable [+wh] feature? The proposal would be plausible if at least the Q-morpheme always selected a wh-phrase. However, as some languages allow SP readings freely, we know this cannot be the case since, in these instances, the Q-morpheme must be generated in FP higher than both wh-phrases.

Moreover, if the Q-morpheme carries a [+wh] feature, and we know that Q-morpheme eventually ends up in C^0 , it is not clear why it cannot check the strong [+wh] feature of C^0 . Of course, that would take away the motivation for the wh-phrases to move in a language like English, producing ungrammatical results of the kind in (19). Then the crash of the SP reading derivation seems to be rather a result of a Last Resort violation and not a Relativized

Minimality violation (i.e. a wh-phrase moves to Spec,CP for no reason).⁹

(19) *Did John give who what?

Of course, covertness of the Q-morpheme movement avoids this problem, but it seems somewhat of a stipulation, given that the Q-morpheme has the relevant feature attracted by C^0 .

Besides these technical problems, there are some empirical limitations of the Relativized Minimality account. Below, I present some data from Russian and Sinhala and show that Relativized Minimality is not sufficient to rule out SP readings in these languages.

First, consider the facts from Russian in (20).

(20) Kto kogo priglasil na uŝin? *PL/*SP* Russian
 who whom invited to dinner
 ‘Who invited who to the dinner?’

According to all of my informants and myself, only the PL reading is available in (20), the SP reading being disallowed, i.e. (20) is only felicitous on the scenario in (1) but not on the scenario in (4). SP readings are also disallowed when the object wh-phrase is fronted over the subject wh-phrase, as in (21).

(21) Kogo kto priglasil na uŝin? *PL/*SP* Russian
 whom who invited to dinner
 ‘Who invited who to the dinner?’

However, Russian is a language that does not involve syntactic wh-movement to Spec,CP, as argued in Stepanov (1998), and Bošković (2002). Rather, on these analyses, Russian C^0 has a weak [+wh] feature and all the wh-phrases are fronted as instances of

⁹ The problem might be avoided though if we assume the necessity of specification of whether a feature is to be checked in a head-head or a spec-head relation (cf. Bošković (2001b) for some empirical argumentation for the necessity of such specification).

focus movement to some position lower than C^0 (cf. Stepanov (1998) for more discussion of where precisely this position might be located). Thus, the question becomes: why is the SP reading unavailable in Russian if there is no wh-movement to Spec,CP in this language?¹⁰

One possibility could be that in Russian, unlike in SC, the base-position of Q-morpheme in a SP reading structure is lower than the target position of the focus movement. In that case, fronted wh-phrases will still cross the Q-morpheme on their way up.¹¹ However, if that is on the right track, it can no longer be a [+wh] feature that is involved in the Relativized Minimality violation since wh-phrases in Russian do not front in order to check the uninterpretable [+wh] feature of C^0 but rather to check focus. Thus, it is not clear why the Q-morpheme would intervene. It would not be plausible to posit a [+focus] feature on a silent Q element. However, this is an instance of a more general problem of how Relativized Minimality should be formulated. The feature-based (Attract) approach to Relativized Minimality fails to account for many other extraction facts, as pointed out in Bošković (2000). So perhaps this problem could be cleared away as our understanding of those issues developed.

Even if this technical aspect of Relativized Minimality works out, the approach based on Relativized Minimality cannot be a solution for another language lacking SP readings, namely, Sinhala. Hagstrom (1998) observes that a configuration that forces

¹⁰ These facts contrast with the judgments of the Russian example (i) of Stepanov (1998) who claims it can have a SP reading. Besides the fact that none of my informants (including myself) allow the SP reading in (i), the sentence has an interfering factor in that Superiority effects emerge with *who/what* combination in Russian (ii), with all other combinations being insensitive to Superiority (14-15). This is important because we use Superiority effects as diagnostic of syntactic wh-movement. Hence, I changed the questions and corresponding scenarios to *who/who* combination.

- | | | | |
|------|-----------------------------------|---------------------------|---------|
| (i) | Kto čto kupil?
who what bought | <i>'Who bought what?'</i> | Russian |
| (ii) | *Čto kto kupil? | | |

¹¹ Thanks to Željko Bošković (p.c.) for bringing this possibility to my attention.

the SP reading in Japanese (scrambling the lower wh-phrase over the higher one) shown in (22) makes a parallel question in Sinhala ungrammatical (23). Thus he concludes that Sinhala does not allow SP readings.

(22) [Nani-o t_Q]_j John-ga dare-ni t_j ageta no? *SP/??PL*
 what-ACC John-NOM who-DAT gave Q
 ‘What did John give to who?’

(23) *Mokak də Chitra kaate duunne kiyəla dannəwa də?
 what Q Chitra who-DAT gave-E that know Q
 ‘Do you know what Chitra gave to whom?’
 (Hagstrom 1998: Kumara Henadeerage, p.c.)

Since Sinhala is a wh-in-situ language, Relativized Minimality cannot be the explanation for why the SP reading is not available here. Wh-phrases do not move and therefore cannot produce Relativized Minimality violation. So what is then responsible for the lack of SP readings in Sinhala?

4. Q-morpheme Account

4.1. Proposal

In this section, I will present what seems to be a plausible solution to the problems raised above. I will account for the Russian and Sinhala data and then see how this approach can be generalized to other cases.

I propose that the distinction between the languages allowing and disallowing SP reading lies in the crucial lexical differences of the Q-morpheme itself. Specifically, a given language would either allow or disallow SP readings depending on whether it has a particular Q-morpheme as part of its lexicon. Recall what the two

different structures for the PL and SP readings are from (16) repeated below as (24).

- (24) a. $[_{CP} Q_j-C^0 \dots [_{TP} \dots wh1 \dots V \dots wh2 \ t_j \dots]]$ *PL*
 b. $[_{CP} Q_j-C^0 \dots [_{FP} \ t_j-F^0 \ [_{TP} \dots wh1 \dots V \dots wh2 \dots]]]$ *SP*

In section 2.2 we concluded that what licenses a SP reading semantically is the presence of the Q-morpheme (or more precisely, its choice function variable) above both wh-phrases. It is needed there to reduce the set of propositions it combines with to a single proposition. Now, if a language lacks a Q-morpheme that can be generated in FP as in (24b), it would not have the option of licensing the PL reading, for it would lack the licenser for it. That is exactly my view of the situations in Russian and Sinhala. That is, the Q-morpheme in these languages is lexically specified such that it only selects the wh-phrase and never FP. Hence, they lack the element that licenses the SP reading.

Some supporting evidence for this approach comes from SC multiple wh-questions with a question particle *li*. I will assume that *li* is the SC counterpart of the Q-morphemes *ka* and *no* in Japanese. In SC, *li* is primarily used in Yes/No questions. When used in wh-questions, it adds some emphatic force to a question. This additional semantic property of *li* should not prevent us from analyzing it as a legitimate Q-morpheme, for such “fusion” of functional and lexical semantic material is a common property of Slavic languages (e.g. aspectual prefixes carrying additional lexical meaning along with grammatical information).

Recall that SC is a language that allows both PL and SP readings in the original context in (8). However, whenever *li* is used in a multiple wh-question in SC, it forces the SP reading as shown in (25-26).

- (25) Ko li koga pozva na večeru? SP/??PL
 who Q whom invited to dinner
 ‘Who (on earth) invited who to the dinner?’
- (26) Ko li koga tuče? SP/??PL
 who Q whom beat
 ‘Who (on earth) is beating whom?’

Based on these facts, I propose that SC has two different lexical Q-morphemes. One is associated with the PL reading and the other with the SP reading. The former is always phonetically null. It evokes the PL reading by movement to C⁰ from the base position of being merged with the lower *wh*-phrase (24a). The latter has two allomorphs: [*li*] and phonetically null [∅]. It evokes SP reading via movement to C from its base position in FP as in Hagstrom (1998) (24b).

Recall that Russian contrasts with SC in that the SP reading is not allowed in Russian. Significantly, while *li* is allowed in Russian Yes/No questions, it is completely disallowed in Russian *wh*-questions (27).^{12, 13}

- (27) *Kto **li** kogo priglasil na užin? Russian
 who Q whom invited to dinner
 ‘Who invited who to the dinner?’

¹² *Li* is disallowed in both multiple and single *wh*-questions in Russian (i). There might be some independent reason for the absence of *li* in Russian *wh*-questions, which I leave to further research.

(i) *Kogo li Ivan priglasil na užin?
 whom Q Ivan invited to dinner
 ‘Who did Ivan invite to the dinner?’

¹³ Bulgarian, like SC, allows *li* in multiple *wh*-questions which are compatible with the PL reading. I suspect that this difference between Bulgarian and SC stems from the more general difference between *li* in those two languages as discussed in Bošković (2001b).

Unlike SC, Japanese Q-morpheme is always phonetically realized. Hence, a Japanese multiple *wh*-question with *-ka* is ambiguous between PL and SP readings.

- (28) *PL/SP*
Darega dareo syokuzini manekimasita-ka? Japanese
who who dinner invited-Q
'Who invited who to the dinner?'

The Sinhala *də* then always selects *wh*-phrase and therefore there are no SP readings in Sinhala.

4.2. Implications and consequences

Note that the analysis presented here does not involve postulating of anything new in the system. Particularly, it does not posit a [+wh] feature on the Q-morpheme. The technical problems of Relativized Minimality do not arise here either. The theoretical foundation for my proposal is already set in the analysis of Hagstrom (1998) and, particularly, in associating the structural distribution of the Q-morpheme with the distinction between PL and SP readings. When two syntactic positions for the Q-morpheme lead to different semantic interpretations, it seems only natural to associate the condition on the distribution of the SP reading with the Q-morpheme having one or both of these structural possibilities.

It is important not to confuse this morphological approach to parameterization, which I peruse here, with merely restating the facts. First, note that, regardless of whether Bošković (1991)'s analysis can be made to work, my lexical solution seems unavoidable for languages like Russian and Sinhala (as well as for any other language lacking both *wh*-movement to Spec,CP and SP

readings). Hence, it seems reasonable to limit our theoretical apparatus to what is minimally required.¹⁴

Second, besides the empirical coverage of this approach, it also increases the degree of explanatory adequacy of our theory in that it restricts crosslinguistic parameterization to the properties of individual lexical items. The learnability picture with respect to PL/SP readings becomes more clear. Specifically, a child has a PL reading as a default reading for a multiple interrogative and only needs positive data (like *li* in SC) to project to SP readings. Thus, my approach predicts that SP readings emerges later than PL readings in Japanese and SC speaking children, which seems testable.

However, it is interesting to see what exactly it means for this analysis to be extended to languages with overt *wh*-movement like English, German and Bulgarian (i.e. the core of Bošković's analysis). The advantage of such an extension would be in the uniform treatment of the unavailability of the SP readings crosslinguistically. However, there is a potential difficulty in losing the connection between overt *wh*-movement and unavailability of SP reading. A possibility arises of there being a language with overt *wh*-movement to Spec,CP, yet allowing a SP reading, which has not been attested so far.

However, the generalization that overt *wh*-movement to Spec,CP forces PL reading still needs some independent explanation and the work in the spirit of Bošković (2001a) should continue in the overall theory of PL/SP reading distribution. In light of the problems with the Relativized Minimality account pointed out in section 3, it is worth considering an alternative proposal of Citko and Grohmann (2001), which is similar to the Bošković (2001a) account in that it directly connects the syntactic *wh*-movement and the loss of the SP reading. However, on their

¹⁴ It might still be interesting to ask what determines the lexical choice of a particular Q-morpheme crosslinguistically. However, that would be parallel to a question of what determines C⁰ specification with a strong vs. weak [+wh] feature. I doubt that questions like that can be answered in any insightful way.

analysis, there is no Relativized Minimality violation involved, but rather the SP reading is disallowed in certain contexts simply because wh-movement changes the structural configuration of the Q-morpheme with respect to the two wh-phrases. Consider the representation of the SP reading derivation in (29).

(29) *_{[CP Who_j C⁰ [_{FP} Q-F⁰ [_{TP} t_j...invited...who to the dinner]]]}

By moving a wh-phrase out of the scope of the Q-morpheme generated in FP, we destroy the required configuration for the SP reading where the Q-morpheme is supposed to take scope over both wh-phrases. The subject wh-phrase is now out of the scope of Q. Hence, the SP reading cannot arise in these languages. On the other hand, the PL reading derivation works fine since the Q-morpheme is already structurally between the two wh-phrases from the start. It is important to note that on the Citko and Grohmann (2001) account, the wh-phrases must be interpreted in the position they move to and not in their base-position. This might have some consequences for the semantics of questions we are adopting here, which I will leave for future research.

To summarize, this paper has shown that the Relativized Minimality account is not sufficient to rule out SP readings in languages other than languages with overt syntactic wh-movement. My analysis of PL/SP readings distribution relies on the lexical properties of the Q-morpheme, specifically proposing that the absence of the SP reading can be the direct result of the absence of the Q-morpheme of a particular kind. This approach raises the degree of explanatory adequacy in that it explains crosslinguistic parameterization based on the properties of individual lexical items.

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