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Is Scrambling as Strange as We Think It Is?*

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1. Introduction

Saito and Fukui (1998) provide the data in (1) to suggest that scrambling violates the Minimal Link Condition (MLC), stated in (2).

- (1) a. [_{IP} Mary-ga John-ni sono hon-o watasita]
M -Nom J to that book-Acc handed
'Mary handed that book to John.'
- b. [_{IP} sono hon-o_i [John-ni_k [Mary-ga t_k t_i watasita]]]
that book-Acc J to M -Nom handed
- c. [_{IP} John-ni_k [sono hon-o_i [Mary-ga t_k t_i watasita]]]
(Saito & Fukui 1998:443)

- (2) Minimal Link Condition (MLC)
K attracts α only if there is no β , β *closer* to K than α , such that
K attracts β . (Chomsky 1995:311)

Where 'close' and 'c-command' are defined as in (i) and (ii), respectively:

- (i) β is closer to the target K than α if β c-commands α .
(ii) X c-commands Y if
a. every Z that dominates X dominates Y, and
b. X and Y are disconnected.

The well-formedness of the examples in (1b) and (1c) suggests that the order of scrambled elements is not crucial, and thus this operation is not subject to MLC. The Persian data in (3) seem to support Saito's and Fukui's proposal in this regard.¹

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(3) Clause Bound Scrambling in Persian

a. man [_{VP} ketâb-â-ro be Sepide dâd - am]
 I book -pl - râ to S gave- 1sg
 'I gave the books to Sepide.'

b. [ketâb-â -ro]_i [be Sepide]_j **man** [_{VP} t_i t_j dâd - am]
 ↑ _____ |
 ↑ _____ |
 Lit. The books, to Sepide I gave.

c. [be Sepide]_j [ketâb-â -ro]_i **man** [_{VP} t_i t_j dâd - am]
 ↑ _____ |
 ↑ _____ |

Lit. To Sepide, the books I gave.

In (3b), the direct and indirect objects have scrambled, crossing the embedded subject. The comparison between (3b) and (3c) shows that scrambling can apply in any order, violating the MLC.

The Japanese data in (1) and their Persian counterparts in (3) contrast with those in (4) that are clearly ruled out by MLC.

- (4) a. *John seems [that **it** is likely [t to be dancing tonight]]
 ↑ _____* _____ |
 b. *What does **who** want t
 ↑ _____* _____ |

Furthermore, scrambling does not seem to be subject to island conditions, as illustrated by the well-formedness of (5b).

- (5) a. [_{IP} Bill-ga [_{CP} [_{IP} Mary-ga John-ni sono hon-o
 B -Nom M -Nom J to that book-Acc
 watasita] to] itta] (kotto)
 handed that said fact
 'Bill said that Mary handed that book to John.'
- b. [_{IP} sono hon-o]_i [John-ni]_k [Bill-ga [_{CP} [_{IP} Mary-ga
 that book-Acc J to B -Nom M-Nom
 t_k t_i watasita] to] itta]]] (kotto)

Bruening for their detailed comments. All shortcomings are, of course, solely mine.

¹. Glosses

Pl = plural, ind = indefinite, hab = habitual, sg = singular
 neg = negation, subj = subjunctive râ = specificity marker for accusative Case. This element appears as 'o' and 'ro' in colloquial language. Ez = Ezafe particle. *Ezafe construction* is a DP consisting of the head (an element with the feature [+N]), its modifier(s), an optional possessive DP, and the Ezafe particle e that is structurally utilized as a link between the head and its modifier.

handed that said (fact)
 (Saito & Fukui 1998:443)

The sentence in (5b) indicates that scrambling is different from a typical operator movement in the sense that it does not create a syntactic island. The Persian counterpart of (5) is presented in (6). In (6b), the embedded direct and indirect objects have both scrambled. (6c) shows, once again, that the order is not relevant.

- (6) Long Distance Scrambling in Persian
- a. momken-e [_{CP} [_{TP} un gol-â-ro be ki dâde bâsh-e]]
 possible-3sg she flower-pl-râ to who given be-3sg
 ‘To whom is it possible (that) she has given the flowers.’
- b. [gol-â-ro]_i [be ki]_j momken-e [_{CP} [_{TP} **un** t_i t_j dâde bâsh-e]]
 ↑ _____ |
 ↑ _____ |
 Lit. The flowers, to whom it is possible (that) she has given .
- c. [be ki]_j [gol-â-ro]_i momken-e [_{CP} [_{TP} **un** t_i t_j dâde bâsh-e]]
 ↑ _____ |
 ↑ _____ |
 Lit. To whom, the flowers it is possible (that) she has given.

These data indicate that scrambling (a) does not obey the MLC, and (b) does not create an island. Compare these sentences with the following data from English and German that show island effects due to topicalization.

- (7) Topicalization in English
 *What_i do you think [_{CP} t_i [to Benj [_{IP} Mary will give t_i t_j]]]?
- (8) Topicalization in German
 *Ich weiss wen_i du sagtest [_{CP} Ede_j habe_k [_{IP} t_j t_i I know who-Acc you said Ede has-subj getroffen t_k]]
 met (Müller and Sternefeld 1993:481)

These observations raise several questions. Is it really the case that scrambling is not subject to MLC? That is, does scrambling apply freely, violating conditions on movement? Is Long Distance Scrambling (LDS) immune to island conditions? Is there any kind of constraint that would block this operation? In this paper, I address these issues by concentrating on the syntax of Persian, a verb final language that allows clause bound and long distance scrambling of argument and adjunct phrases.

The organization of the paper is as follows. Scrambling as a feature driven movement is discussed in section 2. The analysis in this section supports the claim that at least one type of scrambling is motivated by discourse functions

such as focus (Miyagawa 1994, 1997, Bailyn 1999a&b, Karimi (in preparation), among others). It further shows that scrambling obeys the conditions on Move, including the MLC.² The optionality of scrambling triggered by focus, and the element responsible for this movement are also addressed in this section. In section 3, I introduce a set of novel data that have not been discussed in the literature. These data show that scrambling is in fact subject to some kind of island conditions. In other words, there is a constraint that blocks the application of LDS. I will show that this constraint, in spite of its strange properties, follows general conditions that govern the operation Move. Section 4 concludes this paper.

2. Is Scrambling A Feature Driven Operation?

Recent literature on scrambling indicates that this movement is triggered by different features. Miyagawa (1997, 1999) suggests that a good portion of scrambling data in Japanese is triggered by the need to satisfy EPP. Bailyn (1999b) argues along the same lines regarding scrambling in Russian. Holmberg (1999) and Holmberg and Nikanne (1999) propose a similar idea with respect to Finnish and Icelandic. Miyagawa (1997) argues that one set of scrambling data in Japanese represents focus, so does Bailyn (1999a) with respect to Russian.

Persian lacks overt and null expletives, does not exhibit verb raising in an unmarked sentence, and allows the subject to remain in situ (Karimi: in preparation). Thus EPP is satisfied by feature checking in situ. That is, scrambling in Persian is not triggered by EPP. This operation is rather motivated by Topic and Focus. Thus the sentences in (6) will have the structure in (9).

- (9) a. $[_{TopP} [gol-\hat{a}-ro]_i] [_{FocP} [be KI]_j]$ momken-e
 flower-pl-râ to who possible-is
 $[_{CP} [_{TP} un t_i t_j \quad dâde bâsh-e]]$
 she given subj-3sg
 Lit. As for the flowers, it was to WHOM, that she has
 possibly given (them)?
- b. $[_{FocP} [be KI]_j] [_{TopP} [gol-\hat{a}-ro]_i]$
 momken-e $[_{CP} [_{TP} un t_i t_j \quad dâde bâsh-e]]$
 Lit. It was to WHOM, as for the flowers, that she has
 possibly given (them)?

(9) shows that, unlike English and German, there is no specific position for Topic in Persian. Nor is there a fixed position for Focus, as Hungarian.³

². I am employing the term Move for overt movement and Merge for pure Merge in this work.

³. There is, however, one restriction on the position of focus: it is barred from the postverbal position:

- (i) *man be Kimea dâd-am KETAB-o
 I to K gave-1sg BOOK-râ
 (ii) *Kimea xarid chi-ro

Furthermore, scrambling of two elements does not create an island in (9) since these elements do neither pass through the same position, nor share the same landing site, unlike structural topic and *wh*-movement in English and similar languages. Thus the contrast between the data in (9), on the one hand, and those in (7) and (8), on the other, is not surprising.

In this section, I discuss scrambling triggered by focus in Persian, and its interaction with MLC. A brief discussion of focus is presented in 2.1. The problem regarding scrambling and MLC effects is addressed in section 2.2. In 2.3, I discuss the optionality of this type of scrambling. The question whether the feature responsible for Move resides in the head or in the affected XP is raised in 2.4. The summary of this section is presented in 2.5.

2.1 Focus in Persian

Focus may trigger movement in Persian, as evidenced by (9). Further examples are provided in (10).

- (10) a. *DIVAN-E HAFEZ-O* man t_j barâ Kimea xarid-am
 DIVAN-E HAFEZ-RA I for K bought-1sg
 ‘It was *DIVAN-E HAFEZ* that I bought for Kimea.’
- b. be *KIMEA* man t_j ye ketâb dâd-am
 to *KIMEA* I a book gave-1sg
 ‘It was to *KIMEA* that I gave a book.’

DIVAN-E HAFEZ in (10a) receives a contrastive reading since it denotes contrast with respect to other members of a set of relevant objects. Similarly, *KIMEA* in (10b) contrasts with someone else, or a set of relevant people.

Focus does not necessarily trigger movement, as the example in (11) shows.⁴

- (11) hâlâ pro barâ *Sasan* nâme mi-nevis-an
 now for *Sasan* letter hab-write-3sg
 ‘Now they are writing letters for *Sasan*.’

There is, however, a semantic difference between the sentence in (11), on the one hand, and those in (9) and (10), on the other, as indicated by the English translations: while the focused elements in (9) and (10) reveal contrast and have quantificational force, the one in (11) merely represents new information. Following Kiss (1998), I employ the term *identificational focus* for the capitalized elements in (9) and (10), and *information focus* for the italic one in (11).

In addition to the semantic difference, there are also phonetic and syntactic differences between the two types of foci: the identificational focus

K bought what-râ

See chapter II in Karimi (in preparation) for discussion.

⁴. Persian is a Null Subject language. Therefore we have the null referential *pro* in (11).

receives heavier stress, and can be scrambled, as in (9) and (10). The information focus receives a lighter stress, and remains in situ, as in (11). This property of identificational focus is observed in Hungarian, Greek, Italian, and some other languages as well (Kiss 1998).

The movement of the identificational focus, however, is not obligatory, as evidenced by the following example:

- (12) man un ketâb-ro be KIMEA dâd-am
 I that book-râ to KIMEA gave-1sg
 'It was to KIMEA that I gave that book (not to Sasan).'

(12) is disambiguated by its heavy stress.

Certain elements, such as only-phrases and wh-constructions, carry an inherent focus feature since the former singles out a specific individual, and the latter solicits a specific information. These elements reveal interesting syntactic properties when interacting with each other.

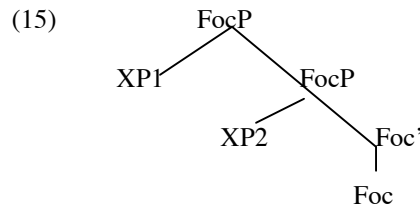
Persian does not exhibit obligatory wh-movement. These phrases, however, are subject to scrambling. If scrambled or heavily stressed in situ, they force an answer that denotes an identificational focus. More than one wh-phrase may undergo scrambling. In that case, the dislocated elements are subject to adjacency condition, as illustrated by the contrast in (13).

- (13) a. KI_i bâ KI_j pro fekr-mi-kon-i [_{CP} t_i t_j be-raghs-e]
 WHO with WHO thought-hab-do-2sg subj-dance-3sg
 Lit: It is WHO with WHO you think will dance?
 b. ??KI_i emruz bâ KI_j pro fekr-mi-kon-i [_{CP} t_i t_j be-raghs-e]

The awkwardness of (13b) supports Richards' (1997) proposal regarding the existence of multiple specifiers sharing the same head: the two focused elements in (13b) must be in the specifier of the same head, and therefore, cannot be separated by the adverb. This observation suggests that focus is an instance of Move which is triggered by the feature Foc. The landing site of the moved element is the specifier of a functional projection whose head carries a comparable feature. This is illustrated by (14).

- (14) [_{FocP} XP_i [_{Foc'} Foc [_{YP} ... t_i]]]

In the case of two scrambled focal elements, we will have the structure in (15).



The head carrying the feature *Foc* projects two specifiers. The configuration in (15) explains the awkwardness of (13b) where an adverb intervenes between the two specifiers.

In summary, Persian exhibits two types of focus. One type is interpreted as new information, receives light stress, and does not undergo scrambling. The second type receives heavy stress, expresses contrastive interpretation, and is subject to scrambling. However, the dislocation of an XP bearing an identificational focus is not obligatory.

Some questions emerge regarding the ongoing discussion in this section. First, is there any further evidence indicating that scrambling is in fact feature driven? Is it, for example, subject to the MLC stated in (2)? If MLC requires chain links to be minimal in length, and if this condition is relevant only with respect to chains that are formed by raising elements that carry the same [\pm interpretable] features (such as *wh*, *Foc*, *Top*, *Case*, etc.; cf. Rizzi's *Relativized Minimality* (1990) and Nakamura's *Chain Link Compatibility* (1998)), then this condition should become relevant when ever there is more than one element carrying the same feature and competing for the same landing site. Second, if scrambling is a feature driven Move, how can we account for the optionality we observed with respect to identificational focus? In other words, how can a feature only optionally trigger movement? Finally, since we can have multiple scrambled elements representing the same discourse function, which feature can we consider to be responsible for movement? The one residing in XP, or its uninterpretable counterpart in the head of the functional projection? I address these issues in the next three section.

2.2 Scrambling, MLC effects, and Shortest Move

I have suggested thus far that scrambling is a feature driven operation triggered by discourse functions. The question is now whether this operation is subject to MLC. An analysis of Persian data shows that scrambling must in fact obey this condition.

The contrast between (16b) and (16c) implies that of the two elements bearing the same feature, the higher one may scramble. Otherwise, the derivation crashes.

- (16) a. [se tâ KETAB]_i man be Kimea t_j dâd-am
 three part BOOK I to Kimea gave-1sg
 'It was three BOOKS that I gave to Kimea (not three SHIRTS).'
- b. [faghat be KIMEA]_i man t_j se tâ KETAB dâd-am
 'It was only to KIMEA that I gave three BOOKs.' (I gave other people other things.)
- c. *se tâ KETAB man faghat be KIMEA t_j dâd-am.
 Intended meaning: It was three BOOKS that I gave only to KIMEA

Nonspecific noun phrases receive heavy stress and contrastive interpretation when scrambled, as in (16a). In (16b), we have the only-phrase and the stressed direct object, both representing identificational focus. The former has moved

while the latter remains in situ. In contrast, the direct object has moved in (16c), crossing the only-phrase in a higher position. The ill-formedness of (16c) indicates that scrambling motivated by focus is subject to MLC. Note that this sentence is grammatical if ‘only’ is interpreted as the modifier of *se tâ ketâb* ‘three books’ rather than *Kimea*: *It was ONLY three books that I gave to Kimea*. Given this interpretation, the structure of (16c) is the one in (17).⁵

- (17) $[_{FocP} \text{ se tâ KETAB }]_k \text{ man } [_{Foc} \text{ faghat } t_k]_i \text{ be Kimea } t_i \text{ dâd-am}$
- |-----|
- |-----|

Two movements are involved in (17): first the whole only-phrase is scrambled out of the VP. Then the noun phrase has moved out of the only-phrase, leaving ‘only’ stranded. Neither the first nor the second movement violates MLC. Thus MLC is responsible for the contrast between (16c) and (17).

We saw in the previous section that wh-phrases are subject to scrambling. It was suggested that this movement is triggered by a focus feature. In a double wh-construction, one of the focused elements may remain in situ. In that case, superiority must be obeyed, as the contrast between (18a) and (18b) indicates.

- (18) a. $KI_i \text{ pro fekr mi-kon-i } [_{CP} t_i \text{ bâ } KI \text{ be-raghs-e}]$
 WHO thought hab-do-2sg with WHO subj-dance-3sg
 ‘WHO is it you think will dance with who?’
- b. * $\text{bâ } KI_j \text{ pro fekr mi-kon-i } [_{CP} KI_i t_j \text{ be-raghs-e}]$

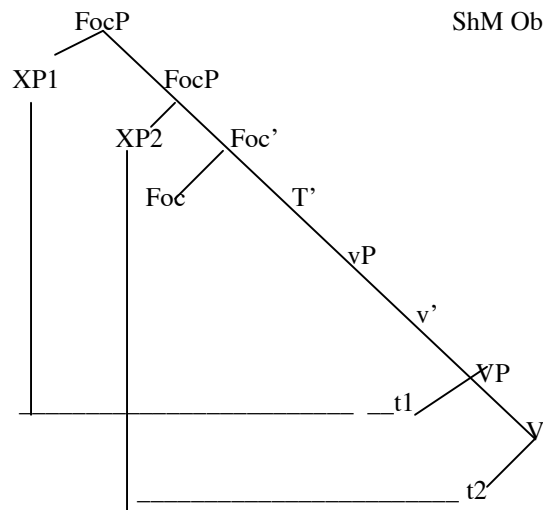
The contrast between (18a) and (18b) suggests that MLC must be obeyed when two elements bearing the same feature compete for a single position. Note that the sentence in (18b) is grammatical if the wh-phrase in situ is not stressed. In that case, it is interpreted as an indefinite DP with no quantificational force (similar to ‘someone’ in English).

Furthermore, the surface order of two scrambled wh-phrases is subject to a certain restriction. Compare the contrast between (13a), repeated below in (19), and the sentence in (20).

- (19) $KI_i \text{ bâ } KI_j \text{ pro fekr-mi-kon-i } [_{CP} t_i t_j \text{ be-raghs-e}]$
 WHO with WHO thought-hab-do-2sg subj-dance-3sg
 Lit: It is WHO with WHO you think will dance?’
- (20) * $\text{bâ } KI_j \text{ } KI_i \text{ pro fekr-mi-kon-i } [_{CP} t_i t_j \text{ be-raghs-e}]$

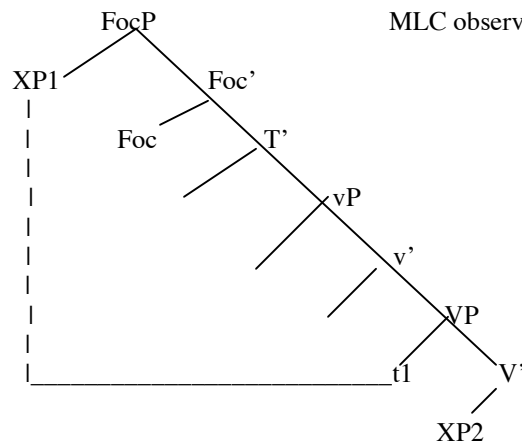
⁵. (17) is indicative of a difference between scrambling and A/A’ movements: while extraction out of a scrambled element is possible, this operation is barred in the case of typical A/A’ movements.

Step 2 ShM Observed



(27) *_{[FocP be KI]_j} [_{FocP KI-ro}]_i Kimea t_i t_j mo'arrefi kard

Step 1 MLC observed



Lit. As for the books, it is KIMEA who is possible to have given (them) to Sepide.

- b. KIMEA_i Ketbâb-â-roj momken-e [_{CP} t_i t_j be Sepide
 ↑ _____ |
 _____ |
 dâde bâsh-e]

Neither of these sentences is subject to MLC since the scrambled elements do not carry the same feature, and thus are not in competition with each other. The configurations in (26)-(30) are consistent with Richards (1997:83) who states that “...scrambling with crossing paths is (or can be) the result of multiple attractors by a single head, while scrambling with nesting paths must involve multiple attractors.”

The discussion in this section supports the claim that scrambling is an operation triggered by features. It also shows that this movement is subject to conditions that govern the operation Move in UG.

2.3 Scrambling and optionality

The grammaticality of (12) and (18a), repeated below in (31) and (32), respectively, suggests that scrambling, at least in the case of identificational focus, is optional. This is in fact a position taken by Kiss (1998) for the identificational focus in a number of languages including Rumanian, Italian, and Catalan.

- (31) man un ketâb-ro be KIMEA dâd-am
 I that book-râ to KIMEA gave-1sg
 ‘It was to KIMEA that I gave that book (not to Sasan).’
- (32) KI_i pro fekr-mi-kon-i [_{CP} t_i bâ KI be-raghs-e]
 who think-hab-do-2sg with whom subj-dance-3sg
 ‘WHO is it you think will dance with WHOM?’

The identificational focus is in situ in (31). In (32), the first stressed wh-phrase is scrambled, but the second one remains in situ.

The optionality of scrambling in the case of the identificational focus provides some problem for the Minimalist Program (MP). Using terms of earlier versions of MP, a feature cannot be both *strong* and *weak* at the same time. That is, if the feature is of the type that triggers movement (=strong), it MUST do so.

Let us consider the sentence in (32) first. We can account for the well-formedness of this sentence by taking into account the Principle of Minimal Compliance proposed by Richards (1998). This principle is stated in (33).

- (33) Principle of Minimal Compliance (PMC)
 For any dependency D that obeys constraint C, any elements that are relevant for determining whether D obeys C can be ignored for the rest of the derivation for the purposes of determining whether any other dependency D’ obeys C. (Richards 1998:601)

The principle in (33) states that once a constraint C is obeyed in a certain domain, it can be ignored for the rest of the derivation. Returning to (32), the higher wh-phrase has undergone movement in this example. Thus the second one can afford to ignore movement, and stay in situ in accordance with PMC.

I will now consider the sentence in (31). There is only one focused element in this sentence, and therefore, PMC does not seem to apply in this case. Let us, however, reexamine the nature of the feature that represents the identificational focus in this language. As mentioned before, an element bearing this feature is heavily stressed and can be scrambled. In other words, this feature has a dual property: Stress and movement. If we extend the interpretation of the PMC to include elements that are dependent on two distinct constraints, C and C', we can account for the well-formedness of (31) without the need to resort to optionality. That is, once C is obeyed, C' can be ignored. It seems that heavy stress is the dominant constraint in the case of the identificational focus in Persian and many other languages. Once this constraint is obeyed, the second one, namely movement, can be ignored. Thus the grammaticality of (31) and (32) is explained on the basis of (33) without the need to consider scrambling an optional movement.

2.4 Which feature triggers movement?

We saw that two elements bearing identificational features can both scramble. This property can be explained in two ways. First, the existence of two focus constructions suggests that the feature forcing the movement is not F on H(ead), but rather F' on XP, since if F were responsible for movement, one scrambled element would satisfy its need. However, if F' in XP motivates the movement, then the existence of more than one scrambled focus is not surprising. This argument is based on the assumption that F can be checked more than once, and is deleted when all XPs bearing the same feature are checked. The same argument holds for languages that exhibit multiple overt wh-movement, as discussed by Lasnik (1999). If the feature in H were responsible for wh-movement, one wh-phrase would be sufficient to satisfy the need for feature checking in those languages. Consider the following data from Serbo-Croatian. In this language, all wh-phrases must be fronted.

- (34) a. Ko sta gdje kupuje?
 who what where buys
 'Who buys what where?'
 b. *Ko kupuje sta gdje?
 c. *Ko sta kupuje gdje?
 d. *Ko gdje kupuje sta? (Boskovic 1997, per Lasnik 1999)

The difference between Serbo-Croatian and boils down to the number of specifier positions a functional head allows to have in each one of these languages.

The second possibility is that the head has more than one attractor in Serbo-Croatian type languages, and the existence of these multiple attractors allows the existence of multiple Specifiers. In this regard, F in H is the feature that attracts the XP carrying F'. Thus the distinction between Serbo-Croatian and English would be attributed to the difference between the number of attractors a head may bear in a given language. This proposal is problematic for those theories that allow the features of wh-in-situ phrases to raise after Spell-out. The reason is that a language like English must have multiple wh-features on C, but only one of them may function as the attractor in overt syntax.

The final option is that there is only one attractor on a functional head that motivates the overt movement of XP, and that the difference between English and Serbo-Croatian is simply due to the number of specifiers that are allowed in a given language. In this case, similar to the first option, F must be allowed to check multiple features before it is deleted. The problem with this and the first options is that one attractor must allow multiple specifiers in one language, but only one specifier in the other. I leave a thorough investigation of these options for future research.

2.5 Summary

The discussion in section 2 indicates that scrambling is a feature driven movement. Therefore, more than one movement is allowed which can be triggered either by one type of feature, or by two distinct types of features. Furthermore, it was shown that multiple scrambling motivated by the same feature corresponds to the existence of multiple specifiers in the same projection. We also saw that MLC becomes relevant in these cases. The order of scrambled elements is determined not only by MLC, but also by the Shortest Move condition proposed by Richards (1997). Moreover, the optionality observed in the case of identificational focus was argued to be explained in terms of the Principle of Minimal Compliance (Richards 1998). Finally, I raised the question whether the feature F in head or its counterpart F' in XP were responsible for multiple movements triggered by focus or wh features. Three alternative answers were proposed, although a definite solution to this problem was left for future research.

3. Scrambling and Island Effects

It was suggested in the previous section that scrambling is triggered by discourse functional features, and that it is subject to MLC. A closer examination of Persian syntax indicates that although LDS out of complement clauses is possible in this language, there is a constraint that blocks this movement. This section is devoted to a discussion of this constraint. A set of new data are presented that have not been discussed before in the literature.

The relevant data subject to our discussion in this section are presented in 3.1. The first question that immediately emerges is whether the ill-formedness of these data is associated with a processing problem or a syntactic constraint. This issue is addressed and in 3.2. The interaction of LDS with the argument structure of the sentences involved is examined in 3.3. Finally, the relevance of MLC is examined in 3.4. The summary of section 3 appears in 3.5.

3.1 The Data

LDS of subject DPs is blocked if there is another subject in the target clause. This is shown in (35).

- (35) LDS of Subjects
- a. Kimea goft [_{CP} ke Sasan ketâb-â-ro az Sepide xaride]
 K said that S book-pl râ from S bought is
 ‘Kimea said that Sasan has bought the books from Sepide.’
- b. *Sasan_i Kimea goft-i [_{CP} ke t_i ketâb-â-ro az Sepide xaride]
 ↑_____|
- (36) a. Sasan fekr mi-kon-e [_{CP} ke KI in kâr-ro karde]
 S thought hab-do-3sg that who this work-râ done is
 ‘Who does Sasan think has done this job?’
- b. *KI_i Sasan fekr mi-kon-e [_{CP} ke t_i in kâr-ro karde]
 ↑_____|

The embedded subjects in (35b) and (36b) have moved into the matrix clause, rendering both sentences ill-formed. At the first glance, the ungrammaticality of these sentences seems to be a classic *that-trace* effect. The following data show, however, that the ungrammaticality of (35b) and (36b) is independent of this condition.

- (37) a. Sasan_i be-nazar mi-yâd [_{CP} ke t_i xeyli bâhush bâshe]
 ↑_____|
 S to view hab-come that very smart is
 Lit: Sasan seems that (he) is very smart.
- b. KI_i be-nazar mi-yâd [_{CP} ke t_i xeyli bâhush bâshe]
 ↑_____|
 who to view hab-come that very smart is
 Lit: Who seems that (he) is very smart.’

The embedded subjects have been extracted out of a CP that contains *ke* ‘that’ in (37). Nevertheless, both sentences are fine. Note that the matrix verb in (37), a so-called raising verb, does not subcategorize for an external argument.⁸ Thus this sentence contrasts with those in (35b) and (36b) where two DPs with the same function appear in the matrix clause.

⁸. There are no raising constructions in Persian, and the scrambled subject does not land in the specifier of TP. One piece of evidence supporting this claim is that the so-called raising-verb does not agree with the scrambled subject. This fact is evident by lack of agreement between the scrambled subject and the verb in (42a) below in text.

The data in (38) show that the same constraint we observed with respect to the subject DP in (35b) and (36b) holds for scrambled indirect objects as well.

- (38) LDS of Indirect Objects
- a. Sasan be Kimea goft [_{CP} ke pro ketâb-ro be Ali dâde]
 S to K said that book râ to A given is
 'Sasan told Kimea that he has given the book to Ali.'
- b. *[be Ali]_i Sasan **be Kimea** goft [_{CP} ke pro ketâb-ro t_i dâde]
 ↑ _____ ||
- (39) a. Sasan be Kimea goft [_{CP} ke pro ketâb-ro be KI dâde]
 S to K said that book râ to WHO given is
 'To whom did Sasan tell Kimea that he has given the book?.'
- b. *[be KI]_i Sasan **be Kimea** goft [_{CP} ke pro ketâb-ro t_i dâde]
 ↑ _____ ||

The LDS of the embedded indirect object is blocked as long as there is another XP with the same grammatical function in the target clause. The same restriction holds in the case of direct objects, as in (40) and (41).

- (40) LDS of Direct Objects
- a. Kimea pesar-â-ro tashvigh kard [_{CP} ke pro
 K boy- pl - râ encouragement did that
 doxtar-â-ro be-bus-an]
 girl-pl - râ subj-kiss-3pl
 'Kimea encouraged the boys to kiss the girls.'
- b. *[doxtar-â- ro]_i Kimea **pesar-â-ro** tashvigh kard [_{CP} ke pro t_i
 ↑ _____ |
 be-bus-an]
- (41) a. Kimea pesar-â-ro tashvigh kard [_{CP} ke pro
 K boy- pl - râ encouragement did that
 KI-ro be-bus-an]
 who- râ subj-kiss-3pl
 'WHO did Kimea encourage the boys to kiss?'
- b. *[KI- ro]_i Kimea **pesar-â-ro** tashvigh kard [_{CP} ke pro t_i
 ↑ _____ |
 be-bus-an]

The data in the 'b' sentences in (35)-(36) and (38)-(41) clearly show that an element cannot scramble into a higher clause if another element with the same grammatical function already exists in that clause. The grammatical sentences in (42) are additional pieces of evidence supporting the claim that scrambling is

possible only if the moved element does not have an identical counterpart in the target clause.

- (42) a. bachche-hâ_i be nazar mi-yâd [_{CP} ke t_i xaste bâsh-an]
 ↑_____↓
 child-pl to view hab-come-3sg that tired be-3pl
 'The children seem to be tired.'
- b. [ketâb-â-ro]_i fekr mi-kon-am [_{CP} ke Kimea t_i xaride]
 ↑_____↓
 book-pl-râ thought hab-do-3sg that K bought is
 Lit. As for the books, I think that Kimea has bought .
- c. [be Ali]_i fekr-mi-kon-am [_{CP} ke Kimea mozu-ro t_i gofte]
 ↑_____↓
 to Ali thought hab-do-1sg that K subject-râ told is
 Lit: As for Ali, I think that Kimea has told the matter.

In (42a), the embedded subject has moved into a clause whose verb does not subcategorize for an external argument. Similarly, an embedded YP has moved into a matrix clause that does not contain an XP with the same function in (42b) and (42c).

On the basis of the data discussed thus far, I propose the following informal condition.

- (43) Condition on LDS (1)
 LDS is blocked in the following configuration
 *Y_P_iα X_Pα [t_i]
 ↑_____↓
 Where α represents a specific grammatical function
 (e.g. subject).

Obviously, the condition in (43) does not hold in the case of a typical operator movement, such as wh-movement, as illustrated by the examples in (44).

- (44) a. Who_i does John think [t_i is going to Europe tomorrow?]
 b. Who_i did John encourage Mary to see t_i?

The grammaticality of the data in (44), on the one hand, and the ill-formedness of the sentences discussed in this section, on the other, support the long standing claim that scrambling is different from typical operator movement.

The contrast between the ill-formed and well-formed sentences in this section might suggest that LDS is not the result of Move, but is rather generated

by the operation Merge.⁹ That is, the ill-formed sentences are ruled out since two argument XPs of the same kind cannot be base-generated in a single position. However, scrambling across two clauses provides some evidence against this assumption. Consider first the data in (45). These sentences show that scrambling across an intervening clause is possible.

- (45) a. ketâb-â-ro_i ehtemâl dâr-e [_{CP} ke Kimea
 book-pl râ possibility have-3sg that K
 fekr kon-e [_{CP} man t_i be Sasan dâd-am]]
 thought do-3sg I to S gave-1sg
 'As for books, it is possible that Kimea thinks that I
 have given (them) to Sasan.'
- b. be SASAN_i ehtemâl dâr-e [_{CP} ke Kimea
 fekr kon-e [_{CP} man ketâb-â ro t_i dâd-am]]
 'It is to SASAN that it is possible that Kimea thinks I have
 given the books.'

However, the movement of a YP is blocked if the intermediate clause contains an XP with the same grammatical function. The relevant examples are provided in (46). The bold DP in (46b) is the blocking element.

- (46) a. be-nazar mi-yâd [_{CP} ke Kimea be Sepide gofte
 to-view hab-come that K to S said is
 [_{CP} ke Sasan emruz kâr ne-mi-kon-e]]]
 that S today work neg-hab-do-3sg
 'It seems that Kimea has told Sepide that Sasan does
 not work today.'
- b. *Sasan be-nazar mi-yâd [_{CP} ke **Kimea** be Sepide
 ↑
 gofte [_{CP} ke t_i emruz kâr ne-mi-kon-e]]]
 |

In (46b), the subject of the lowest sentence is scrambled into the highest clause. Recall that the main verb in this sentence does not subcategorize for an external argument. Thus nothing in the matrix clause prevents the intermediate subject from moving into the matrix clause, as in (47).

- (47) Kimea be-nazar mi-yâd [_{CP} ke t_i be Sepide gofte [_{CP} ke
 ↑
 K to view hab-come that to S told is that
 Sasan emruz kâr ne-mi-kon-e]]]
 S today work neg-hab-do-3sg

⁹. Scrambling has been in fact considered to be the result of Merge, rather than Move, by Boskovic and Takahashi (1998) and Saito and Fukui (1998). Their analyses do not take into account the argument structure of relevant clauses.

‘As for Kimea, it seems that (she) has told Sepide that Sasan will not work today.’

The grammaticality of (47) is due to the fact that the embedded subject moves into a subjectless clause, without crossing another subject DP in an intermediate clause. Thus it must be the intermediate subject in (46b) that blocks the movement. This suggestion is in fact supported by the ill-formedness of the following sentence.

- (48) *be-nazar mi-yâd [_{CP} ke Sasan_i **Kimea** be Sepide gofte [_{CP} ke t_i emruz kâr ne-mi-kon-e]]] ↑ _____ |

In (48), the subject of the most embedded clause has moved into the intermediate clause where there is another subject. Thus this sentence is subject to the condition in (43). The implication of this discussion is that what we have here is an instance of Move rather than pure Merge, and that scrambling applies cyclically.¹⁰

Indirect and direct objects reveal the same restriction we observe in (46b). This is illustrated by (49) and (50), respectively.

- (49) Indirect Object
- a. * [_{CP} be RAHJOU_i [_{TP} man fekr mi-kon-am [_{CP} ke Kimea to R I thought hab-do-1sg that K **be Sasan** gofte [_{CP} ke pro ketâb-â-ro t_i be-d-e]]]] |
 to S said is that book-pl-râ subj-give-3sg
 Intended meaning: it is to RAHJOU, that I think that Kimea has told Sasan to give the books.
- b. * [_{CP} be KI_i [_{TP} to fekr mi-kon-i [_{CP} ke Kimea to WHO you thought hab-do-2sg that K **be Sasan** gofte [_{CP} ke pro ketâb-â-ro t_i be-d-e]]]] |
 to S said is that book-pl-râ subj-give-3sg
 Intended meaning: it is to WHOM, that you think that Kimea has told Sasan to give the books.

- (50) Direct Object
- a. * [_{CP} DOXTAR-A-ro_i [_{TP} man fekr mi-kon-am [_{CP} ke Kimea ↑ _____ |

¹⁰. The fact that scrambling is an instance of Move is supported by scope since this operation (if triggered by discourse functions) creates ambiguity when two quantified elements interact with each other (Miyagawa (1997, 199), Beck and Kim (1997), Karimi (in preparation), among others).

girl -pl -râ I thought hab-do-1sg that K
pesar-â-ro tashvigh karde [_{CP} ke pro t_i be-bus-an]]]]
 |
 boy-pl-râ encouragement done is that subj-kiss-3sg
 Intended meaning: It is the GIRLS, I think that Kimea has
 encouraged the boys to kiss.

- b. * [_{CP} KI-ro_i [_{TP} to fekr mi-kon-i [_{CP} ke Kimea
 ↑
 WHO-râ you thought hab-do-2sg that K
pesar-â-ro tashvigh karde [_{CP} ke pro t_i be-bus-an]]]]
 |
 boy-pl-râ encouragement done is that subj-Kiss-3sg
 Intended meaning: Who is it, you think that Kimea has
 encouraged the boys to kiss (them).

The indirect objects in (49) and the direct objects in (50) cannot scramble into the matrix clause due to the existence of XPs with the same grammatical function in the intervening intermediate clauses. Therefore, the XPs in bold are the ones blocking the movement. Note that the scrambled elements in (49) and (50) bear heavy stress, representing focus. Without the stress, these sentences would become even worse.

On the basis of these data, the condition in (43) is revised as in (51).

(51) Condition on LDS (2)

LDS is blocked if (a) or (b):

a. *YP_iα **XP**α [t_i]
 ↑
 |

b. YP_iα [**XP**α [t_i]]
 ↑
 |

Where α represents a specific grammatical function
 (e.g. subject).

(51) states that LDS of a phrase YP into a higher clause is not possible if the chain is blocked by an overt XP with the same grammatical function.

This restriction is similar to a parallel constraint on Across the Board movement (ATB) in English, as the contrast in (52) indicates.

- (52) a. Who did [Mary visit t], [Stephanie kissed t], and [Anne betrayed t]?
 b. *Who did [Mary visit t], [Stephanie kissed Bill] and [Anne betrayed t]?

The difference between ‘a’ and ‘b’ is that the chain is blocked by an overt element in the latter, but not the former.

In summary, we saw a number of data that illustrate an interesting constraint that governs the application of LDS in Persian. That is, LDS can

apply to a YP as long as there is no XP bearing the same grammatical function in the target or the intermediate clause.

Several explanations come to mind. The first one is that this constraint is a matter of processing rather than syntax. The second is that LDS applies through the argument positions, and therefore, is sensitive to the argument structure of the target and the intermediate clause. The final option is that the ill-formed sentences discussed in this section are subject to a general condition on Move, namely the MLC. I address these issues in the next three sections.

3.2 Processing

The data discussed in the previous section suggest that the presence of two XPs bearing the same function might be difficult to process. In this section, I address this issue by resorting to two different processing theories.

Pickering and Barry (1991) suggest that the length of time that the processor has to hold the relevant element in memory, before it can be linked to the subcategorizer, is crucial in order to process that element. The difference between the following data, they suggest, corresponds to the time needed to process the wh-phrases they contain.

- (53) a. In which box did you put the very large and beautifully decorated wedding cake bought from the expensive bakery?
- b. Which box did you put the very large and beautifully decorated wedding cake bought from the expensive bakery in?

(53a) is less awkward than (53b). According to Pickering and Barry, the time needed to process the element *in which box* with its subcategorizer *put* in (53a) is shorter than between *which box* and its subcategorizer *in* in (53b). Therefore, the former is easier to process than the latter.¹¹

Gibson (1991) suggests that arguments which require thematic roles, but have not yet received such roles (parsing left to right), are associated with memory cost. On the basis of this theory, Gibson and Hickok (1993) suggest that the difference between the ‘a’ and ‘b’ sentences in (53) is the distance between the wh-phrase and the attachment point of its trace. In (53a), the trace is attached to the verb phrase, whereas in (53b) it is attached to the PP. This difference is illustrated in (54).

- (54) a. [In which box] did you [_{VP} put [_{NP}] t]
- b. [Which box] did you [_{VP} put [_{NP}] [_{PP} t]

In other words, the structure in (54b) is more complex than the one in (54a) with respect to the relationship between the wh-phrase and its trace.

How can the ill-formed data in the previous section be analyzed in the framework of these two theories? Let us start with Pickering and Barry’s

¹¹. Pickering and Barry (1991) basically argue against the existence of empty categories and their role with respect to processing.

attachment of the trace holds in these cases. In (57b), for example, there is a transitive verb in the intermediate clause that could serve as the theta assignor for the wh-phrase. Its theta role, however, is used up by *Mary*. The trace of the wh-phrase is attached to a category lower than the one containing the intermediate transitive verb. Nevertheless, this sentence is perfectly well-formed.

Finally, the following dialogue shows that familiarity with the subject matter does not improve the relevant examples.

(58) Speaker A: Kimea_i be Ali gofte [_{CP} ke pro_i fekr mi-kon-e [_{CP} ke Kimea to A told that thought hab-do-3sg that pro_i ketâb-â-ro be Sasan dâde]]
 book-pl-râ to Sasan given is
 ‘Kimea has told Ali that she thinks that she has given the books to Sasan.’

Speaker B: *na, be RAHJOU_K un_i **be Ali** gofte [_{CP} ke pro_i
 ↑
 no, to RAHJOU she to A told that
 fekr mi-kon-e [_{CP} ke pro_i ketâb-â-ro t_K dâde]]
 |
 thought hab-do-3sg that book-pl-râ given is
 Intended meaning: No, it was to RAHJOU that she told Ali that it was possible that she had given the books.

Almost all the information needed to understand the second utterance is provided by Speaker A in the first utterance. Speaker B disagrees only with one portion of the first utterance, and highlights that portion by stressing and scrambling it. In fact, the second utterance is understandable, especially in the context of the first one. However, it is still ungrammatical. The following contexts provide additional pieces of evidence indicating that the ill-formedness of the data discussed in this paper is not a matter of processing.

(59) Speaker A: momken-e [_{CP} Ali_i be-xâd [_{CP} ke Sasan un_i-ro
 possible-3sg A subj-want that S him-râ
 da’vat kon-e]]
 invitation do-3sg
 ‘It is possible that Ali wants that Sasan invites him.’

Speaker B: *KIMEA_K momken-e [_{CP} **Ali**_i be-xâd [_{CP} ke t_K un_i-ro
 ↑
 K possible-3sg A subj-want that him-râ
 da’vat kon-e]]
 invitation do-3sg
 Intended meaning: It is KIMEA that Ali possibly wants to invite him.

(60) Speaker A: pro fekr mi-kon-i [_{CP} Kimea_i be-xâd [_{CP} ke KI

thought hab-do-2sg K subj-want that who
 da'vat-esh_i kon-e]]
 invite-her do-3sg
 'Who do you think Kimea wants to invite her?'

Speaker B: *SASAN_k pro fekr mi-kon-am [_{CP} **Kimea**_i be-xâd
 ↑
 S thought hab-do-1sg K subj-want
 [_{CP} ke t_k da'vat-esh_i kon-e]]

 invite-her do-3sg
 Intended meaning: It is SASAN that I think Kimea
 wants to invite her.

Again, the second utterances in (59) and (60), produced by Speaker B, are not difficult to process in the context of the first utterances produced by Speaker A. Nevertheless, they are ill-formed. Scrambling is blocked by the existence of the bold element in the intervening clause in each case.

3.3 Scrambling and the argument structure

The ungrammatical data in 3.1 and 3.2 suggest that LDS is a cyclic movement through the argument positions since scrambling of YP is blocked by XP bearing the same functional properties. Thus LDS might be considered an instance of A-movement. This analysis cannot be maintained, however, since this operation is not compatible with properties of a typical A-movement (e.g., it is not triggered by Case or EPP). Furthermore, LDS of adjuncts is subject to the same constraint, as evidenced by the sentence in (56), repeated in (61), and the contrast in (62).

(61) *key_i Kimea goft [ke pro **diruz** shenide
 ↑
 when K said that yesterday heard is
 [ke Sepide t_i xune xaride]]

 that S house bought is

(62) a. key_i Kimea goft ke Sepide t_i xune xaride?
 when K said that S house bought is
 'When did Kimea say that Sepide has bought a house?'

b. *key_i Kimea **emruz** goft ke Sepide t_i xune xaride
 ↑
 'when Kimea today said that S house bought is

The example in (61) shows that LDS of an adjunct is not possible if a similar adjunct exists in the intermediate clause. (Note that this sentence is grammatical if the *wh*-phrase is interpreted as modifying the matrix verb, or if it is understood as part of the adverbial phrase in the intermediate clause: *when*

yesterday.) The sentence in (62b) is ill-formed since there already is a temporal adverb in the matrix clause, and thus the embedded adverb cannot be scrambled into the higher clause, as predicted by the condition in (51). (Note again that this sentence is grammatical if we interpret the wh-phrase as part of the temporal adverb: *when today*).

Since Persian is a Null-subject language, the question that arises at this point is whether the condition in (51) is valid if the subject is not overt. The following data show that (51) can be maintained only if the grammatical counterpart of the scrambled element is overt.

(63) KI_i **pro** fekr mi-kon-i [_{CP} t_i fardâ bi-yâ-d]
 ↑
 who thought-hab-do-2sg tomorrow subj-come-2sg
 ‘Who is it that you think will come tomorrow?’

(64) $Kimea_i$ **pro** fekr mi-kon-an [_{CP} t_i emruz
 ↑
 K thought hab-do-3sg today
 tu madrese bâsh-e]
 in school be-3sg
 ‘As for Kimea, they think (she) is at school today.’

(65) $KIMEA_i$ **pro** fekr mi-kon-am [_{CP} **pro** mi-xâ-n [_{CP} t_i
 ↑
 KIMEA thought-hab-do-1sg hab-want-3pl
 barande be-sh-e]]
 winner subj-become-3sg
 ‘It is KIMEA that I think they want to win.’

In (63) and (64), the embedded subject appears in the matrix clause. The matrix subject is not overt, and the sentence is fine. In (65), the lowest subject moves into the matrix clause, crossing the intermediate subject. The intermediate subject, as well as the matrix subject, are null referential pronouns, and the result is grammatical. Thus, the condition in (51) needs to undergo another revision.

(66) Condition on LDS (3)

LDS is blocked if (a) or (b):

a. $*YP_i\alpha$ **XP** α [t_i]
 ↑

b. $*YP_i\alpha$ [**XP** α [t_i]]
 ↑

Where

- (i) α represents a specific grammatical function (e.g. subject).
- (ii) XP is overt.

We saw in this section that adjuncts are subject to the same constraint as arguments with respect to LDS. In addition, the presence of a referential null

In (70), FP stands for a functional phrase such as TopP or FocP. In this configuration, $XP\alpha$ is the only element that can be attracted to the target position since lowering of $YP\alpha$ is not possible. The structure is nevertheless ill-formed, evidenced by the example in (71).

- (71) *to Sasan_i goft [ke t_i ketâb-â ro az Sepide xarid-i]
 you S said that book-pl-râ from S bought-2sg
- ↑—————↓

Another possibility is that there is a discourse functional feature D in the initial position of the clause, for example in C, that is responsible for scrambling. This feature looks for the most local element in order to license its movement into the specifier of FocP. Therefore, the lower element is rejected as a possible candidate as long as there is a higher candidate with the same grammatical function. This stipulation accounts for the fact that only lexical elements are possible blocking candidates since null pronouns may not function as focus or topic.¹²

Now we are in a position to revise (66), as in (72). Since null pronouns are not visible to C_D , there is no need to incorporate them into this condition.

- (72) Condition on LDS (Final version)
 C_D $YP\alpha$ [..... $XP\alpha$ ]
 |—————*—————|
 where α = grammatical function

Is (72) specific to Persian syntax, or is it a general property of that kind of scrambling that is triggered by discourse functional features?

Consider the following sentence, taken from Russian.¹³

- (73) ??ty doktor videl kogda t pod"ezzal?
 you doctor see when came
 'Did you see when the doctor came?' (Bailyn 1999a)

Bailyn (1999a) states that his informants did not like (73), and found it "...marginal only with a certain intonational pattern indicative of Left-Dislocation." Thus Bailyn suggests that the embedded subject might be base-generated in its surface position, coindexed with a null resumptive pronoun in the embedded clause.¹⁴ The following data, taken from colloquial Russian, are compatible with the condition stated in (72).¹⁵

¹². Thanks to Howard Lasnik for suggesting this point.

¹³. This sentence was presented by Müller and Sternefeld (1993) as a grammatical clause.

¹⁴. In fact, the ill-formed sentences discussed in section 3 improve radically if the fronted XP is interpreted as a left dislocated element, coindexed with a null referential pronoun or a resumptive pronoun. See Karimi (in preparation) for data and discussion.

¹⁵. Thanks to David Pesetsky for making these data available to me.

- (74) *ty kogo dumajes on ljubit ?*
 you whom think-2sg he loves
 'Who do you think he loves?'
- (75) **on kto dumajet pridet pervyj ?*
 he who thinks will come first
 'Who does he think will come first?'
- (76) ***ty komu skazal jemu ja peredal knigu ?*
 you who-Dat said him-Dat I delivered book
 'Who did you say to him I delivered the book to?' (Sinicyn 1983)

The *wh*-phrase in (74) is the object of the lower clause, and thus this sentence is not subject to (72). In (75), the moved *wh*-phrase is a subject, and therefore, there are two phrases bearing the same function in the matrix clause. A similar situation holds in (76) with respect to indirect objects. Thus the ill-formedness of (75) and (76) seems to suggest that (72) applies in Russian as well.¹⁶

3.5 Summary

We saw in section 3 that scrambling is blocked when it involves the movement of a YP into a clause that contains an XP with the same grammatical function. For example, an embedded direct object may not move into the target clause that contains another indirect object. This constraint holds also in those cases when an XP bearing the same grammatical function as the scrambled YP is present in the intermediate clause. Next we saw that processing cannot be blamed for the ill-formedness of the data discussed in this section, and that familiarity with the subject matter does not render those sentences grammatical. We then examined the cyclic nature of scrambling, and suggested that this movement applies through argument positions. Thus the existence of a filled position would create an island, and would block the movement. We saw, however, that adverbs are subject to the same condition. Moreover, null referential pronouns do not block the application of LDS. Thus the constraint cannot be explained by assuming a cyclic movement through argument structures. Finally, it was suggested that a

¹⁶. The Russian examples are different from the Persian data in one respect: It seems that number and person play an important role in the former, but not in the latter. (73), for example, becomes grammatical if *ty* 'you' replaces *on* 'he'. In Russian, therefore, two elements with the same function may appear in the same clause as long as they are different in number and person.

In Karimi (in preparation), I discuss the condition proposed in (72) with respect to a number of different variables, including number, person, and the feature [+/- ANIMATE]. I have shown there that although a change in number and person may improve the sentence in certain cases, this is not a general rule, as the ungrammaticality of (68), (69) and (71) attests. The property both languages share is that they do not allow two elements with certain similarities in the same clause. Persian seems to be more radical in this respect than Russian. The relevant issue is that this restriction is not valid with respect to regular operator movements.

discourse feature D on C is responsible for those instances of scrambling that are motivated by discourse functions. Thus the ill-formedness of the sentences discussed in the last three sections is explained by MLC. That is, D on C is sensitive to certain properties of YP that carries the feature Foc. If there is an XP identical to YP in a position closer to C, it blocks the movement of YP. Null referential pronouns are, therefore, invisible to this features since they can not be focused.

4. Conclusion

Persian data show that scrambling is in fact subject to MLC, contrary to previous suggestions in the literature (Saito and Fukui 1998). Multiple scrambling is triggered by either one or more features. MLC is relevant when two XPs are attracted by the same feature, and compete for the same position. The first movement is subject to MLC, and the second must obey the Shortest Move, as suggested by Richards (1997) regarding languages that exhibit multiple wh-movement. As for the optionality of scrambling triggered by identificational focus, I suggested that an extended interpretation of the Principle of Minimal Compliance (Richards 1998) can account for relevant cases, and thus eliminate optionality.

In the second part of the paper, a set of novel data was introduced that exhibit a certain type of island condition. It was argued that this condition could be subsumed under the MLC. Data from Russian indicate that this condition is not specific to Persian syntax. However, a thorough research of the interaction of LDS and syntactic properties of other scrambling languages is required to test the universal validity of the proposal advanced in this paper.¹⁷

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¹⁷. The condition proposed in this paper interacts with different syntactic properties, such as overt Case, in a language. Thus those properties need to be controlled when examining the validity of (72). For example, *-ko* can mark not only the direct object, but also the indirect object in Hindi (Rajesh Bhutt, personal communication), whereas Persian *-râ* cannot mark an indirect object in the modern version of this language. This issue can affect the outcome of the test regarding the condition in (72).

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