

## On NPIs and QPs in Sason Arabic

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This paper investigates the co-occurrence restrictions between Negative Polarity Items (NPIs) and quantificational elements in Sason Arabic. Based on the interpretational restrictions and scope properties of such structures, I show that the Immediate Scope Constraint at the level of LF is not enough to account for these cooccurrence restrictions in Sason Arabic, and that a PF constraint against homophonous sequences and locality of Quantifier Raising must also be maintained for acceptability.

Keywords: Sason Arabic, NPIs, Quantifier Raising, locality

### 1. Introduction

Sason Arabic (SA) is an understudied, endangered Arabic dialect spoken in eastern Turkey (Jastrow 2005) by around 2,000 speakers. SA is one of the Arabic language islands (Jastrow 2011), and is classified as part of the Kozluk-Sason-Muş group.<sup>1</sup> This language is primarily spoken by trilingual speakers of SA, Armenian and Kurdish/Zazaki, for whom especially over the past two decades the official language Turkish has also become a language of daily use.

This paper is based on the observation that there are certain restrictions on the ordering of the NPIs. Consider the following examples:<sup>2</sup>

- (1) a. *\*kul nes mā-dar tunes*  
every person NEG-called.3M anybody  
Intended reading: ‘Everyone didn’t call anybody.’
- b. *tunes mā-dar kul nes*  
anybody NEG-called.3M every person  
‘Nobody called everybody.’
- c. *\*mā-dar tunes kul nes*  
NEG-called.3M anybody every person

In (1a) the universal quantifier phrase *kul nes* ‘everybody’ precedes the NPI *tunes* ‘anybody’, and the structure is uninterpretable. However, in (1b) the order is reversed and the structure becomes acceptable. In (1c) the NPI is in the postverbal position, but still precedes the universal QP. Interestingly, this configuration is deemed ungrammatical by native speakers.

I argue that the results in (1a) and (1b) are due to two factors: scope rigidity and the inherent properties of the quantificational element involved. Specifically, I show that NPIs are subject to Linebarger’s (1980, 1987) Immediate Scope Constraint (ISC), which requires them to be in the immediate scope of negation. That is, at LF there cannot be another intervening quantificational element between negation and the NPI it licenses. This statement follows from the assumption that in SA, NPIs do not need to be licensed in overt syntax, which is to say that Benmamoun’s (1997) considerations for both modes of licensing (c-command and Spec-head agreement) for NPIs in Moroccan Arabic, adopted in Soltan (2012) for Egyptian Arabic, do not

carry over to SA. I will further argue that although the ISC, coupled with LF reconstruction of QPs and/or raising of negative operator along the lines of Beck & Kim (1997), seems to explain some constructions, it fails to account for the whole range of data, such as (1c). I propose that certain constructions/configurations like (1c) are filtered out by the PF component (e.g. Bobaljik 1995, Franks 1998, Bošković 2001, 2002, Bobaljik and Wurmbrand 2012, i.a.), even though their LF representations are expected to be grammatical. Moreover, I will argue that locality of QR along the lines of Bruening (2001), coupled with an intervention effect, helps account for other certain constructions.

The paper is organized as follows: Section 2 discusses some aspects of the phrase structure of SA: the position of V and preverbal subject. Section 3 introduces the NPIs in SA, followed by an examination of whether the NPIs in SA need overt licensing. Section 4 discusses NPI-QP cooccurrence restrictions in the light of the ISC, Neg Raising and reconstruction, and presents the problematic cases. Section 5 discusses the PF effect on NPI-QP orders and locality condition of QR in various constructions. Section 6 concludes the paper.

## 2. Phrase Structure of Sason Arabic

### 2.1. *V-to-T Raising*

SA is a verb-raising language, like other Arabic dialects (see Fassi Fehri 1993; Benmamoun 2000). This is evinced by the sentences in (2), which show that adverbial adjuncts and floated quantifiers may appear between the verb and the direct object in SA.

- (2) a. *zyer kara ams maitub-ma*  
 child wrote.3M yesterday letter-a  
 ‘The child wrote a letter yesterday.’
- b. *zyar karo killen maitub-ma*  
 children wrote.3PL all letter-a  
 ‘The children all wrote a letter.’

In neither sentence are the verb and the direct object within the same maximal projection as the verb has raised out of VP, over the adverb (2a) or the floating quantifier (2b).

### 2.2. *Position of Preverbal Subject*

Example (3) illustrates that the subject in SVO order cannot occupy Spec, TP.

- (3) a. *ahmad mi-k ya-yel laham*  
 A NEG-PAST 3M-eat meat  
 ‘Ahmet wouldn’t eat meat.’
- b. *\*mi ahmad kə-ya-yel laham*  
 NEG A PAST-3M-eat meat

Based on the distributional evidence in (3), the subject seems to be  $\bar{A}$ -moved, hence it precedes both negation and the verb. With respect to the preverbal subject, one question that arises is whether the subject is in Spec, NegP or in a higher position. Benmamoun and Al-Asbahi (2013) argue that the subject is in Spec, NegP, possibly to fulfill the EPP requirement that the negative projection host a nominal element. Yet, on the basis of distributional evidence, it is more likely that the preverbal subject is in a higher position and that there is no Spec-head relation in SA between Neg<sup>o</sup> and the subject.<sup>3</sup>

In (4) a number of adverbs may intervene between the preverbal subject and the neg+verb.

- (4)    *kemal*    *ams*                      *mil-kawa le gize-ma*                      *amil*    *muhaqqaq*  
          K        yesterday              from-after of such-one                      work    definitely
- ma-baxa*                      *mi dars*  
          NEG-failed.3M              from class
- ‘After so much work, Kemal definitely didn’t fail the class yesterday.’

Under the assumption that adverbs mark the edge of maximal projections and may not adjoin to the X-bar level (see Alexiadou and Anagnostopoulou 1998 and references therein), the ordering of preverbal subject, adverbs and negation with respect to one another is strong evidence that negation and the subject are not within the same maximal projection.

On the basis of the relative position of the subject and adverbs, the preverbal (or more accurately, pre-negational) subject position should therefore be considered an  $\bar{A}$ -position (cf. Fassi Fehri 1993, Aoun et al. 2010).

### 3. Negative Polarity Items

NPIs in SA can be divided morphologically into three groups (5):

- (5)    a.        **adverbs:** *qat* ‘ever’, ‘at all’, *hiç* ‘ever’, ‘at all’.
- b.        **words that begin with the morphemes *tu* and *habbe*:**  
                  *tunes* ‘anybody’, *tuşi* ‘anything’, *habbe N* ‘any N’
- c.        **words that do not contain the morpheme *tu*:** *nes*  
                  ‘anybody’, *şi* ‘anything’.

Indefinite determiners such as *ma* ‘a, some’, or NPs such as *şimma* ‘a thing/something’, *mozama* ‘a place, somewhere’, are similar to their English counterparts *some*, *something*, in that they tend to be interpreted with wide scope with respect to negation. This is in contrast with their Turkish counterparts, which easily occur in negative sentences with a narrow scope reading (Kelepir 2011). Compare (6a), where the indefinite is used in an affirmative sentence, with the negative construction in (6b).

- (6)    a.        *iri-nni*                      *şi-mma, (hama more şine ye)*  
          want-me                      thing-a  
          ‘I want something, (but I don’t know what it is).’

- b.    \**mi-iri-nni*                   *ši-mma*  
           NEG-want-me               thing-a  
           Intended reading: ‘I don’t want anything.’

If these indefinites were to take narrow scope with respect to negation, the prediction would be that they combine with the morpheme *tu* ‘any’ to form NPIs, as in Turkish. Yet this is not possible in SA (7a). In order to form an NPI, the ‘bare’ nominal may combine with *tu* ‘any’ without the indefinite determiner (7b).

- (7)    a.    \**tu*    *moza-ma*       *mo-mme*  
               any    place-a       NEG-1M.go  
               Intended: ‘I am not going anywhere.
- b.    *tu*    *moza*   *mo-mme*  
               any    place   NEG-1M.go  
               ‘I am not going anywhere.

The question is at what level NPIs are licensed in SA, i.e. are they licensed overtly, or covertly at LF? Benmamoun (1997) argues on the basis of data from Moroccan Arabic (MA) that NPIs must be licensed overtly. Benmamoun’s argument against LF licensing of NPIs concerns the reconstruction effects. As shown in Aoun and Benmamoun (1996, cited in Benmamoun (1997) and Aoun et al. (2010)), CLLD-ed NPs and fronted PPs in Arabic display reconstruction effects. Consider the following:

- (8)    [*mʕa bəʕDhum*]<sub>i</sub>    *kanu*               *lə-wlad*               *təyləʕbu t<sub>i</sub>*  
           with   each other    were.3PL       the-children   play.3PL  
           ‘The children were playing with each other.’ (Benmamoun’s (32))

Benmamoun contends that if NPIs could be licensed at LF, the prediction would be that they could reconstruct, like anaphors. However, this prediction is not borne out in the case of MA. A fronted PP cannot contain an NPI, as the following contrast shows:

- (9)    a.    *ma-kanu*       *lə-wlad*       *təyləʕbu*       *mʕa*   *həтта*   *wahəd*  
               NEG.were.3PL   the-children   play.3PL       with   even   one  
               ‘The children were not playing with anyone.’
- b.    \**mʕa həтта*    *wahəd*   *ma-kanu*   *lə-wlad*   *təyləʕbu*

(9a) and (9b) are identical except that the PP containing the NPI is in situ in (9a) but is fronted in (9b). Based on this ungrammaticality, along with some other data, Benmamoun concludes that NPIs in MA must be licensed overtly, and not at LF. Soltan (2012) states that the same considerations carry over to Cairene Egyptian Arabic (CEA).

However, unlike their counterparts in MA and CEA, NPIs in SA can be used both in situ and in the fronted position:

- (10) a.      $zyar$       $mā-kano$                      $kə-illabo$                      $wara\ tunes$   
              children NEG-were.3PL                PAST-play.3PL                with anybody  
              ‘The children were not playing with anyone.’

b.      $wara\ tunes$       $zyar$       $mā-kano$                      $kə-illabo$

Example (10) illustrates that unlike MA and CEA, fronted PPs containing NPI can be interpreted in the original position. This implies that NPIs can be licensed via LF reconstruction in SA. However, as I argue below, although (10) demonstrates the need for LF, there are also certain PF restrictions that apply for licensing NPIs. Note that this is the same as saying NPIs are licensed in overt syntax.

#### 4. NPI and Quantifiers

This section first investigates the interaction of two quantifiers with negation. I then discuss how Neg-Raising and Reconstruction analyses fare equally well, in explaining the co-occurrence restrictions between NPIs and QPs in the light of Linebarger’s (1980) ISC.

##### 4.1. Quantifiers and Negation

There are two representative quantifiers in SA (*calabma* ‘some’ and *kul* ‘every’) that exhibit contrasting behaviors when they interact with negation scopally. While *calabma* ‘some’ takes scope over negation (i.e. it cannot be interpreted within the scope of negation), *kul* ‘every’ exhibits the opposite pattern and is interpreted inside the scope of negation. These properties of these quantifiers also result in different scope interactions when they co-occur with NPIs.

The following example illustrates that *calabma* ‘some’ must be interpreted outside the scope of negation.

- (11)      $calabma$               $zyar$                      $mā-namo$   
              some                children                NEG.slept.3PL  
              ‘Some children didn’t sleep.’                                    some > neg, \*neg > some

The universal determiner *kul* ‘every’, on the other hand, has to take scope under negation.<sup>4</sup>

- (12)      $lome$                  $kul\ nes$                  $mā-dʒa$   
              today                every person        NEG-came.3M  
              ‘Today everybody didn’t come.’                                    not > every, \*every > not

##### 4.2. NPI-QP Interaction: ISC, Neg Raising and Reconstruction

These opposing scopal properties of *calabma* ‘some’ and *kul* ‘every’ contribute to the (un)acceptability of the structures in (13).

- (13) a. *\*kul nes mā-dar tunes*  
 every person NEG-called.3M anybody  
 Intended reading: ‘Everybody did not call anybody.’
- b. *tunes mā-dar kul nes*  
 anybody NEG-called.3M every person  
 ‘Nobody called everybody.’

In (13a) a universal quantifier phrase *kul nes* ‘everybody’ is in the subject position and precedes the NPI *tunes* ‘anybody’, and the structure is uninterpretable, whereas in (13b) the order is reversed and the structure becomes acceptable. When they occur together in a structure, the NPI has to precede the universal QP. Note that *kul* ‘everybody’ can be in the subject position of a negative structure when the object is a non-NPI (14).

- (14) *kul nes mā-dar Kemal*  
 every person NEG-called.3M K  
 ‘Everybody didn’t call Kemal.’

Linebarger (1980) proposes that NPIs are subject to the constraint that there can be no quantificational element intervening between the NPI and the negative operator that licenses it. Linebarger (1980:30) formulates this observation as the *Immediate Scope Constraint* (ISC):

This formulation stipulates that the NPI be in the immediate scope of the operator NOT. An item is in the scope of NOT if (1) it occurs only in the proposition which is the entire scope of NOT, and (2) within this proposition there are no logical elements intervening between it and NOT.

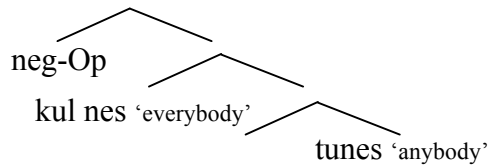
NPI-idioms, which are only licensed by negation, are one type of example Linebarger provides to show ISC at work. Linebarger attributes the ungrammaticality of (15b) to the presence of another quantificational element and proposes that the ISC rules it out.

- (15) a. She didn’t budge for me.  
 b. \*She doesn’t budge for everybody.  
 (i) \*NOT [ $\forall x$ : x is a person] (she budges for x)  
 (ii) \* $[\forall x$ : x is a person] NOT(she budges for x)

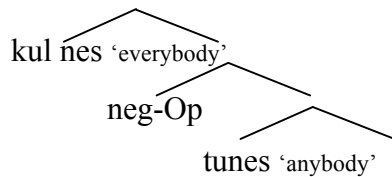
Linebarger maintains that the two possible readings for (15b) are not available for the following reasons: the reading in (15bi) “It is not the case that she budges for everyone” is out because the universal quantifier is intervening between negation and the NPI at LF, violating the ISC. The reading in (15bii), paraphrased as “She doesn’t budge for anybody,” is not available because the universal quantifier cannot take scope outside the negation. Since both of the possible readings are ruled out by different constraints, this structure is uninterpretable.

Returning to the SA constructions in (13), if the ISC is operative in the licensing of the NPIs, then the unacceptability of (13a) is expected. Assume for a moment that there are at least two scope positions for the negative operator (*à la* Beck & Kim, 1997): one taking scope over the subject and one under the subject. This will give us two possible LF representations for (13a), represented in (16).<sup>5</sup>

- (16) a. \* LF representation-1 of (13a)  
negation scopes over the subject:



- b. \* LF representation-2 of (13a)  
negation scopes below the subject:



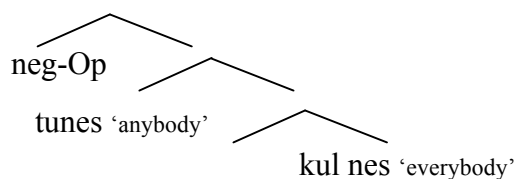
In (16a), *kul nes* 'everybody' intervenes between negation and the NPI it licenses. This clearly violates the ISC. That is why this reading is not available. In the other potential LF representation below, on the other hand, *kul nes* remains outside the scope of negation. Even though this representation satisfies the ISC, it violates the specific requirement of *kul* 'every' that it should not be outside the scope of negation. Thus, neither of the LF representations is available, and the structure is rendered to be uninterpretable.

Rather than introducing the negative operator at different positions, it is also possible to assume reconstruction for the subject, while assuming a fixed NEG position above TP. Since the subject is in the CP domain (13a), we expect it to reconstruct to its base position, and the structure to be grammatical.<sup>6</sup> However, this process would generate the LF representation in (17), which is again ruled out by the ISC.

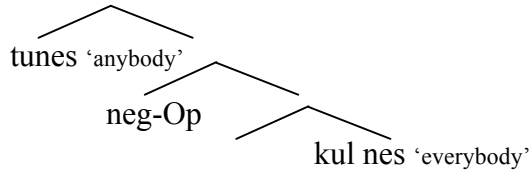
- (17) LF representation of (13a)
- |                |                |              |
|----------------|----------------|--------------|
| <i>*mā-dar</i> | <i>kul nes</i> | <i>tunes</i> |
| NEG-called.3M  | every person   | anybody      |

Moving on to the structure in (13b), if we assume different NEG positions we can have two possible LF representations, represented in (18).

- (18) a. LF representation-1 of (13b)  
negation scopes over the subject:



- b. \*LF representation-2 of (13b)  
negation scopes below the subject:



In the LF representation in (18a), the NPI is within the immediate scope of its licenser, as required by the ISC, and the universal QP is also inside the scope of negation. That is why this reading is available. In the other potential LF representation below, on the other hand, where negation scopes below the NPI subject, NPI is not licensed violating the ISC. Therefore, this configuration is ruled out, and only one of the LF representations, namely (18a) is available.

It is also possible to discuss the same data in terms of reconstruction. If in (13b) the NPI reconstructs, the ISC predicts its acceptability because the NPI is in the immediate scope of the operator NOT and there is no intervening element as represented by the LF representation in (19).

- (19) LF of (13b) via reconstruction  
*mā-dar*                      *tunes*                      *kul nes*  
 NEG-called.3M    anybody    every person  
 ‘Nobody called everybody.’

Furthermore, *kul* ‘every’ needs to be in the scope of negation, which is also fulfilled. Hence, (13b) is grammatical according to reconstruction, which also yields the available representation in (18a).

Now let us turn to another set of data where NPI and QPs co-occur:

- (20) a.    \**mā-dar*                      *kul nes*                      *tunes*  
           NEG-called.3M                      every person    anybody  
           Intended reading: ‘Everybody did not call anybody’
- b.        \**mā-dar*                      *tunes*                      *kul nes*  
           NEG-called.3M                      anybody                      every person  
           Intended reading: ‘Nobody called everybody.’

The structures in (20) are the **overt orders**, not LF representations. Note that in (20a) the universal QP intervenes between negation and NPI, a configuration ruled out at LF by the ISC. That is, in line with its LF counterpart, the s-structure is also uninterpretable. Note that covert movement of the NPI object above the subject would yield an LF that does not involve an ISC violation. However, this option would not involve an LF-PF match. Interestingly (20b), whose LF counterpart meets the conditions of the ISC and is predicted to be grammatical, is ungrammatical in overt syntax. Notice that it has the same LF representation as (13b).<sup>7</sup> Example (20b) thus shows that an LF structure predicted to be acceptable by ISC is ruled out by some



other mechanism in the language, most likely the PF component. If this analysis is correct, it supports the conclusion that PF rules out certain constructions deemed possible by LF.

## 5. The Effects of PF on NPI-QP Orders

In this section I will argue that in addition to LF requirements, SA needs to meet certain PF restrictions to account for the patterns of NPI-QP orderings given in (13) and (20).

### 5.1. Phonology-induced Effect

In the structure (20b), the requirements of NPI and the universal quantifier are satisfied: the NPI precedes the universal QP, and their relative scope relations with respect to negation are satisfied at LF. Regarding this observation, at least two related questions arise:

- a) Is the universal quantifier, the NPI, or both the factor that is responsible for the ungrammaticality?
- b) Would the adjacency of any NPI and QP lead to illicit constructions?

The sentence in (21a) shows that an NPI and a QP can be licitly adjacent, answering (b). It is also possible to have two adjacent QPs (21b) or NPIs (21c).

- (21)
- |    |   |                                    |                                |
|----|---|------------------------------------|--------------------------------|
| a. | <i>mā-dar</i><br>NEG-called.3SG<br>'Nobody called all the men.'         | <i>tunes</i><br>anybody            | <i>ricel killen</i><br>men all |
| b. | <i>mā-daro</i><br>NEG-called.3PL<br>'Some girls didn't call everybody.' | <i>calabma binad</i><br>some girls | <i>kul nes</i><br>everybody    |
| c. | <i>mā-dar</i><br>NEG-called.3M<br>'Nobody called any girls.'            | <i>tunes</i><br>anybody            | <i>habbe bint</i><br>any girl  |

The answer to the second question accounts for the first question as well: we see that it is not the adjacent cooccurrence of an NPI and a QP (21a), or two QPs (21b), or two NPIs (21c) that yields the ungrammaticality, but rather the adjacency of these two particular constituents that somehow results in an unacceptable structure.

This suggests that what we have is an instance of LF and PF conflict and that PF is the winning side in this clash. In fact, the literature defending an LF-PF match is not new, and this proposal has been explicitly made in a number of studies (e.g. Bobaljik 1995, 2002, Bobaljik and Wurmbrand 2012).<sup>8</sup> For instance, Bobaljik and Wurmbrand (2012) posit 'soft constraints' to account for the correlation between the word order and the (un)availability of scrambling and 'scope rigidity'.<sup>9</sup> They postulate that those constraints are unidirectional: LF is calculated first and determines PF (contra Reinhart 2005).

With respect to SA, I propose that the presence of the element *nes* ‘person’ twice, coupled with the absence of morphological case in the language to differentiate the function of each constituent, makes reconstruction impossible. This analysis predicts that if an NPI or a QP is used twice adjacently, the structure should be ungrammatical. This prediction is also borne out:

- (22) a. *tunes*            *mā-daš*            *tunes*  
           anybody        NEG-saw.3M   anybody  
           ‘Nobody saw anybody.’
- b. \**mā-daš*        *tunes*            *tunes*  
           NEG-saw.3M   anybody        anybody
- (23) a. *kul nes*            *mā-daš*            *kul nes*  
           everybody        NEG-saw.3M   everybody  
           ‘Everybody didn’t see everybody’
- b. \**mā-daš*        *kul nes*            *kul nes*  
           NEG-saw.3M   everybody        everybody

The sentences in (22) and (23) show that when an NPI or QP with the same (or at least similar) nature, but with distinct phonological appearance, is chosen, the structure becomes grammatical, while two identical NPIs or QPs lead to ungrammaticality.<sup>10</sup>

These facts are evidence for the argument that we are dealing with a rather intricate interplay of phonology (the PF constraint in question) and syntax (the option of reconstruction or leaving constituents in situ), hence what is relevant is the actual phonological form of the NPIs and QPs. Although it is generally assumed in the literature that on the LF side there is some choice in deciding where deletion should take place in nontrivial chains (Chomsky 1995), it is often assumed that no choice about where deletion should take place in nontrivial chains is available in PF, the head always being the sole survivor.

However, a number of authors have argued that at PF there is also a choice concerning which member of a nontrivial chain survives deletion (e.g. Bobaljik 1995, Franks 1998, Bošković 2001, 2002). For instance, Bobaljik (1995:17) contends that syntactic operations must be filtered by a morphological component. That is, syntactic operations can be forced and blocked if the derivation would otherwise lead to a structure, which though syntactically well-formed, is uninterpretable in the subsequent morphophonological component. Likewise, Franks (1998:28-31), based on the discussion of Slavic clitics under the copy theory of movement (Chomsky 1995), espouses a ‘filtering’ approach, in which the results of strictly syntactic movements are modulated by the phonology. This approach states that of the various orders generated by syntax, some ‘crash’ at PF because of the failure of ‘convergence’ at PF. The proposal is that in the PF component as well, the deletion of the tail of a non-trivial chain is just a preference, not an obligatory step.

Entertaining the idea that there is a PF constraint against consecutive (near)-homophonous NPIs and QPs, this would mean that in examples (22b) and (23b) it is the pronunciation of the lower copy of the subject that leads to a PF violation.

As one reviewer suggests, if SA has a constraint on which copy of a moved constituent gets pronounced, we expect to see such constraint to apply to cases other than NPI-QP order.<sup>11</sup>

In other words, a PF constraint would ‘block’ a sequence of (near)-homophonous *wh*-words, for instance, along with NPIs and QPs. This is in fact the proposal made in Bošković 2002 for sequences of *wh*-phrases in multiple *wh*-fronting languages. This prediction turns out to be correct, as the examples in (24) suggest.

- (24) a.     *adaš    kemal baxle-ma*  
           saw.3M K     mule-a  
           ‘Kemal saw a mule.’
- b.     *ande    šine    adaš?*  
           who    what    saw.3M  
           ‘Who saw what?’
- c.     \**ande    adaš    šine?* (possible only as an echo-question)  
           who    saw.3M what  
           ‘Who saw what?’

The example (24) shows that in cases where multiple *wh*-elements are questioned, the *wh*-phrases are fronted; otherwise, an echo-question interpretation is obtained. Contrast this with (25).

- (25) a.     *adaš    kemal naze*  
           saw.3M K     N  
           ‘Kemal saw Naze.’
- b.     \**ande    ande    adaš?*  
           who    who    saw.3M  
           ‘Who saw whom?’
- c.     *ande    adaš    ande?*  
           who    saw.3M who  
           ‘Who saw whom?’

Unlike (24), in (25) a sequence of homophonous *wh*-words is ‘blocked’ in the sense of Bošković (2002) and the lower *wh*-word is not fronted. The fact that a pair-list reading is obligatory when the homophonous *wh*-element is left in situ suggests that in (25c) we do not have an echo-question. Note that the acceptability of (25c) is different from the cases Pesetsky (1987: 118) discusses in Polish, where a D-linked *wh*-phrase may stay in situ since such a particular context is not available and more importantly its minimal counterpart in (24c) is still out, which we would expect to be grammatical if the reason was D-linkedness or not.

Thus, we have seen that in SA PF can filter out certain constructions, even if LF allows them.

## 5.2. Scope Rigidity and Locality in QR

Scope rigidity in the traditional sense is another place in which we observe the role of PF in licensing the NPI-QP orders in SA.

Consider the following in discussion of scope rigidity in SA:

- (26) *darō*                      *zyar-teyn*              *kul nes*  
called.3PL              children-dual      every person  
‘Two children looked for everybody.              2 > every, \*every > 2

The above sentence is unambiguous. The surface order reading in which ‘two children’ takes scope over ‘everybody’ is true in a scenario where there is only one set of two children that look for everybody. Here the object has narrow scope and the subject wide scope, so at LF their scopal relations are preserved. Now, consider the following sentence:

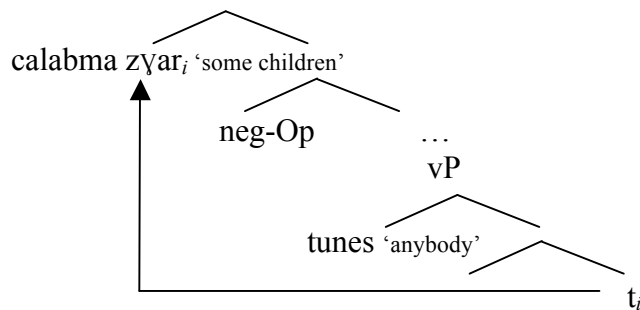
- (27) \**mā-dar*              [<sub>vP</sub> *tunes*              *calabma zyār*]  
NEG-called.3M      anybody              some      children  
‘Nobody called some children.’

In (27), I assume that both the subject and the object are within the same domain, i.e., the vP domain. In this configuration, the NPI subject is licensed by negation and there is no intervening element in the s-structure. However, the structure is ungrammatical, contrary to the prediction. Now consider the following:

- (28) *tunes*                      *mā-dar*                      *calabma zyār*  
anybody              NEG-called.3M              some      children  
‘Nobody called some children.’

The most obvious observation is that in (27) the NPI and the QP are within the vP domain, i.e. in the same phase, whereas in (28) they are within different phase domains. Based on this, one can conclude that LF-PF match must be maintained within the vP phase level (Chomsky, 2001). This analysis suggests that since *calabma* ‘some’ in (27) needs to be outside of the scope of negation at LF, it needs to raise. This modification at LF would yield an LF-PF mismatch, as illustrated in (29). Therefore, PF eliminates this construction.

- (29) \* LF representation of (27):



Let us now first assume NEG Raising (Beck & Kim, 1997) for (28). NEG should raise to take the NPI under its scope, while the QP would raise above negation, resulting in reversal of the surface NPI-QP order at LF, giving us the same configuration in (29). This should be illicit due to the scope rigid nature of the language. Under the reconstruction analysis, again we will have the reversal of the NPI-QP order. The QP should again move out of the scope of negation. However, this sentence, unlike (27), is grammatical even though there is a change in the LF and PF ordering of the QP and the NPI. Therefore, an LF-PF match account within the vP phase level at first seems promising. Yet a phase-based account runs into a problem when the vP phase is sent to spell-out since the vPs in (27) and (28) are identical, as illustrated in (30).<sup>12</sup>

(30) NOT [<sub>vP</sub> some children<sub>i</sub> [<sub>vP</sub> anyone [<sub>vP</sub> V t<sub>i</sub> ]]]

For the object to escape the vP phase, it must move from its base position before spell-out of the vP. If PF and LF then choose different copies of ‘some children’, a mismatch arises, no matter what happens in the next phase. This would undermine the argument that LF-PF match must be maintained within the vP phase level, since in both (27) and (28) the object would not be interpreted in its base-position but in a higher phase, and so, at the vP level there would necessarily be a mismatch in both cases.

At this point, I would like to entertain the idea of locality, to which QR is subject, along the lines of Bruening (2001). Considering this some form of minimality, an intervention effect could be observed in (27) but not in (28), repeated here as (31a) and (31b), respectively. For the object to undergo QR, the NPI would be in the way in (31a), but not in (31b). Movement of the NPI itself as in (31b), on the other hand, frees up the edge of the vP, and the object can undergo QR above NEG:

- (31) a. NOT > anyone > some children: \*QR of object across NPI  
 b. anyone<sub>i</sub> NOT > t<sub>i</sub> > some children: QR of object across NEG possible

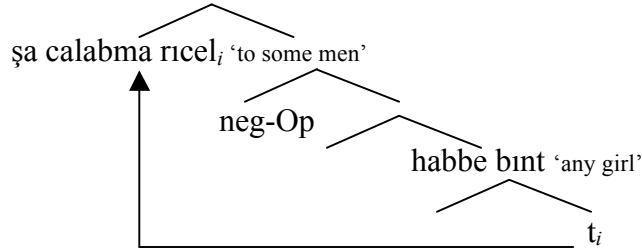
This account is reminiscent of the intervention effects discussed in Beck (1996), Beck & Kim (1997), although the nature of the intervener is different. In Beck (1996), for instance, inherently quantified expressions block LF movement. The locality proposal and the intervention effect can be extended to double object constructions, again along the lines of the scope freezing effects observed in double object constructions in English (as discussed in Bruening 2001). Consider the following:

- (32) a. *\*hassan mā-varra habbe bint şa calabma ricel*  
 H NEG-showed.3M any girl to some men  
 Intended reading: ‘Hasan didn’t show any girls/any of the girls to some men.’  
 b. *hassan mā-varra (şa) calabma ricel habbe bint*  
 H NEG-showed.3M (to) some men any girl  
 ‘Hasan didn’t show some men any girls/any of the girls.’

Notice that in (32a) the NPI precedes and c-commands *calabma* ‘some’ in the surface order. Since the NPI has to be in the immediate scope of negation, there is no LF configuration in which the c-command relations are retained, and the quantifier phrase is outside while the NPI is

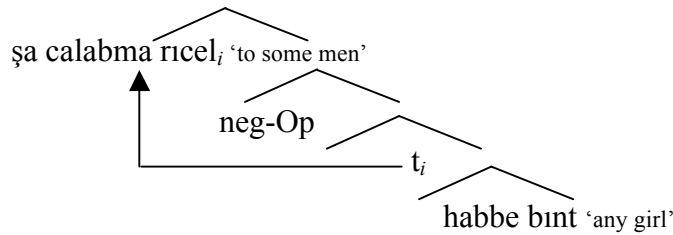
inside the scope of negation. Accordingly, the QR of the object QP is blocked, leading to ungrammaticality. The LF representation is shown below:

(33) \* LF representation of (32a):



(32b), however, is available. The QP precedes and c-commands the NPI at s-structure. Hence, the QP can move across NEG without the intervention of the NPI. Moreover, in terms of the ISC, there is no quantificational element that intervenes between negation and the NPI. Consider the following LF configuration.

(34) LF representation of (32b):



A related observation for the locality account comes from the CLLD constructions, a fact that Akkus (to appear) takes as evidence for the movement analysis of the lexical NP in the CLLD construction. Dative-double object constructions in Sason Arabic with CLLD, (35) and (36) respectively, show that the locality condition is respected. This is in contrast with other Arabic dialects where the position of the CLLD-ed element does not matter (Aoun et al. 2010).<sup>13</sup>

- (35) a. *oratman ku i-qarri ala kitab ša herdem*  
 teacher aux.3M 3M-make read this book to H  
 'The teacher is making Herdem read this book.'
- b. *[ala kitab]<sub>i</sub> oratman ku i-qarri-[u]<sub>i</sub> ša herdem*  
 this book teacher aux.3M 3M-make read-it to H  
 'This book, the teacher is making Herdem read it.'
- c. *\*[ša herdem]<sub>i</sub> oratman ku i-qarri-[a]<sub>i</sub> ala kitab*  
 to H teacher aux.3M 3M-make read-her this book

- (36) a. *oratman ku i-qarri herdem ala kitab*  
 teacher aux.3M 3M-make read H this book  
 ‘The teacher is making Herdem read this book.’
- b. *[herdem]<sub>i</sub> oratman ku i-qarri-[a]<sub>i</sub> ala kitab*  
 H teacher aux.3M 3M-make read-her this book  
 ‘Herdem, the teacher is making her read this book.’
- c. *\*[ala kitab]<sub>i</sub> oratman ku i-qarri-[u]<sub>i</sub> herdem*  
 this book teacher aux.3M 3M-make read-it H

The examples illustrate that the locality constraint is obeyed in CLLD constructions. This is analogous to locality accounts proposed for English passivization, an instance of A-movement. Consider the passivization in the following double-object construction in English:

- (37) a. Alexandra gave Isaac a kiss.  
 b. Isaac was given a kiss.  
 c. \*A kiss was given Isaac.

Locality-based accounts of this construction explain the differences in terms of the relative ordering of the theme and the goal.<sup>14</sup> Under such accounts, in languages like English only the higher argument – i.e., the goal – can be passivized; otherwise, passivization of the lower argument (theme) causes a violation of locality. Following in essence the locality account suggested for passivization (A-movement), we could propose that CLLD, an instance of  $\bar{A}$ -movement, also obeys locality. For instance, in (36c) *herdem* is higher in the structure, hence *lala kitab* ‘this book’ cannot skip over it to be CLLDed. This line of argumentation would correspond to the configuration in (38), adopted from Aoun and Benmamoun (1998), where the clitic is coindexed with a lexical NP that can later undergo movement.

- (38) CLLDed-NP<sub>i</sub>...t<sub>i</sub>-X + Clitic

One prediction that follows from the locality and intervention accounts is that if the NPI in (32a) is replaced with a non-intervening element, e.g. an indefinite NP, such as *bintma* ‘a girl’, the sentence should be acceptable.<sup>15</sup> This prediction is correct, as illustrated in (39).

- (39) *hassan mā-varra bint-ma ša calabma ricel*  
 H NEG-showed.3M girl-a to some men  
 ‘Hasan didn’t show a girl to some men.’

Here the indefinite NP precedes the existential QP at s-structure. At LF, the former would raise outside of negation since, as mentioned earlier, it takes wide scope with respect to negation. The QP would also raise, but due to the scope rigid property of the language, the order is retained. Hence, both the inherent properties of constituents and scope rigidity condition (that can be translated as locality constraint) are satisfied, thereby yielding it acceptable.

## 6. Conclusion

This paper has investigated the co-occurrence restrictions between NPIs and quantificational elements in Sason Arabic. Based on the interpretational restrictions and scope properties of such structures, I have argued that these cooccurrence restrictions are due to: (i) Linebarger's (1980) Immediate Scope Constraint, (ii) a PF constraint against sequences of homophonous elements (in the same domain), (iii) distributional restrictions of quantifiers – i.e., their scopal relations with respect to negation – and (iv) locality condition of Quantifier Raising.

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<sup>1</sup> This paper presents data from the dialect spoken in the villages of Purşeng, Batman and Kuzzi, Bitlis. The data consist of material elicited in the Field Methods course taught in Spring 2013 at Boğaziçi University, papers that came out of that course and data I collected from native speakers (including my own judgements).

<sup>2</sup> Note that I avoid labeling some of the starred structure as ‘ungrammatical’, and use the term ‘uninterpretable’ or ‘unacceptable’ to reflect the difficulty of interpretation that speakers have with such structures. Some of the structures in this paper may sound ‘grammatical’ or ‘good’ to some native speakers at first, but most speakers consulted find them unacceptable when they actually try to interpret them. A similar intuition is reported in Beck (1996) for the German structures and in Kelepir (2011) for the Turkish structures, which exhibit intervention effects.

<sup>3</sup> This idea has been put forward in Alexiadou and Anagnostopoulou (1998) for some other pro-drop languages that show SVO-VSO alternation.

<sup>4</sup> An anonymous reviewer notes that not>>every is also true in a situation in which no one came, which is the same interpretation yielded by every>>not.

However, the suggestion to appeal to the implicatures involved, as the same reviewer points out, is not as convincing as truth-conditional judgments. I tested the scopal relation between negation and every with another situation that our consultant, Sabri Yağmur, experienced in real life. Here is the context: Sabri Yağmur’s father has

been going on vacation regularly for the last five years and all his vacations lasted either 10 days or less. Given this background, I first asked our language consultant how he would express this fact. The following is his answer.

- (i) *farmo miř tatil ala xams sinin, u habbe minnen mā-kan mi ařra tıyom fazle*  
 F went.3M vacation this five years and piece of them NEG-was from ten days more  
 ‘Farmo went on the vacation the last five years, and not one of them was more than 10 days.’

After this reply, I constructed the following sentence and asked him if it is appropriate for such a situation.

- (ii) ... , u kul čax mā-kan mi ařra tıyom fazle  
 and every time NEG-was from ten days more  
 ‘and every time was not more than 10 days.’

The consultant said that he would not use the sentence I constructed for this situation, since it gives him the impression that ‘maybe he spent more than 10 days in at least one of his vacations.’

Based on this, and for the purposes of this article I will assume that ‘every’ must be in the scope of negation, and give (20) at least as suggestive (but not conclusive), as the reviewer suggests. Finally, to contrast this with Turkish, for some speakers of Turkish, including the author of this paper, (ii) would be an appropriate sentence.

<sup>5</sup> The specific positions of the subject, object and the negative operator at LF, i.e. the functional categories they are located in, are not relevant to the analysis. That is why I do not mark such details in the representations. What is crucial is the scopal relations between these elements. For such an approach and further discussion, see Akkus (to appear), Akkus and Benmamoun (in press).

<sup>6</sup> This is based on the assumption that preverbal subject is an CLLDed element (A&A, 1998). However, contra A&A, I argue that CLLDed elements do not have to be base-generated in the CP domain, but can also be derived via movement in the sense of Aoun and Benmamoun (1998). The reconstruction effects and locality constraints in SA support the movement analysis. For further details, see Akkuř (to appear).

<sup>7</sup> A reviewer argues that this paper does not provide a uniform account for cases in the paper, especially (1c). However, I believe that the paper explains this example via a PF-constraint by first considering the other options, e.g. the ISC, scope-rigidity etc. and eliminating them as an answer, then concludes that a PF account is the most plausible solution. Regarding the second point, I think that although the examples are similar, a monolithic account, such as the ISC or PF constraint, would fail to explain the whole data. Hence, more than one account seems to be necessary.

<sup>8</sup> I thank an anonymous reviewer for suggesting that I make this point more explicit.

<sup>9</sup> Bobaljik and Wurmbbrand (2012) argue that scope rigidity (the apparent absence of QR) is a property not of languages, but of specific configurations.

<sup>10</sup> Some languages, such as Turkish, make use of case morphology to reflect the grammatical function of constituents.

- (i) a. *Ara-ma-dı kimse kimse-yi*  
 call-NEG-PAST anybody anybody-ACC  
 ‘Nobody called anybody.’  
 b. *Ara-ma-dı kimse-yi kimse*  
 call-NEG-PAST anybody-ACC anybody  
 ‘Nobody called anybody.’

In Turkish, subjects are marked with Nominative case and objects with Accusative case. This system allows the same phonological form to be repeated, but with different grammatical functions marked with different cases. It also allows scrambling of constituents, as illustrated above. SA, on the other hand, lacks morphological case to mark the grammatical function.

In SA, the unmarked reading for the order of two NPs following V is VSO, similar to Serbo-Croatian, which also lacks Case (Bořković 2002).

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<sup>11</sup> The following example hints that it is possible that what is at issue is a PF-constraint against multiple *nes* in the same domain rather than simple PF-adjacency. I will leave this for future research.

- (i)      a.      *\*tunes qat tunes mā-daş*  
                 anybody at all anybody NEG-saw.3M  
                 ‘Nobody saw anybody at all.’
- b.      *tunes qat mā-daş tunes*  
                 anybody at all NEG-saw.3M anybody  
                 ‘Nobody saw anybody at all.’

<sup>12</sup> I thank an anonymous reviewer for pointing out this to me and suggesting that I entertain the locality account.

<sup>13</sup> This constraint was first noticed by Balkız Öztürk during a data-elicitation session in the Field Methods course taught in Spring 2013 at Boğaziçi University.

<sup>14</sup> See Larson (1988) for a case-theoretic account of this asymmetric passivization. Jim Wood (pers. comm.) notes that this account does not work for some Icelandic examples.

<sup>15</sup> I thank Bernhard Schwarz (pers. comm.) for bringing this point to my attention.