

# THE NULL SUBJECT PARAMETER IN MODERN ARABIC DIALECTS

One of the major goals in the Government and Binding approach to the study of syntax has been to establish the ways in which languages can (and cannot) differ with respect to core grammar. The study of dialects or closely related languages fits naturally into this line of inquiry under the reasonable assumption that dialect differences will reflect a relatively small number of parameter changes in the core system. Stated somewhat differently, the study of dialect differences can reveal changes in core grammar in action, so to speak. Of course, the actual nature of the grammatical difference may be quite abstract, manifesting itself in a number of more superficial differences that seem unrelated or even contradictory from a pretheoretical point of view. As an analogy, think of how a decrease in the pitch of the voice, an increase in facial hair, and a loss of hair on the head tend to be associated and are explicable in terms of a specific chemical change in the endocrine system.

One of the most intensively studied clusters of properties that seem to manifest the same underlying parameter of core grammar has been that associated with the so-called null subject or pro-drop parameter. The work of Jaeggli (1982), Rizzi (1982), and others has shown that the features in (1) tend to cluster together.

- (1) a. phonologically null subject pronouns.
- b. free subject inversion.
- c. *that*-trace violation.

For example, the grammar of Italian is set positively for this parameter and thus permits zero subject pronouns (2a), permits the subject to be placed after the verb freely (2b), and permits the subject of a *that* clause to be extracted under Wh-movement (2c). Conversely, the grammar of English is set negatively for this parameter and so subject pronouns must have phonological content (2a), the subject may appear after the verb only in specific contexts such as interrogatives (2b), and finally the subject of a *that* clause may not be extracted by Wh-movement (2c).

- |     |                         |                               |
|-----|-------------------------|-------------------------------|
| (2) | <i>Italian</i>          | <i>English</i>                |
| a.  | Fuma.                   | *Smokes.                      |
| b.  | Fuma Mario.             | *Smokes John.                 |
| c.  | Chi hai detto che fuma? | *Who did you say that smokes? |

In this paper we will briefly compare two modern colloquial Arabic dialects with respect to the null subject parameter. We will argue that when attention is restricted to a particular syntactic context, the two dialects pattern as Italian and English do with respect to the properties of (1). We shall then look further into the grammar of the dialect that is specified positively for the null subject parameter, discussing additional features that bear on the precise implementation of this aspect of core grammar. The two dialects we shall be comparing are those of Levantine Arabic on the one hand (viz. Palestinian, Lebanese, and Jordanian, which, though different in many ways, exhibit the same behavior with respect to the null subject parameter) and the dialect of the Bani-Hassan, a Bedouin clan of the Jordanian desert, on the other.<sup>1</sup> The particular syntactic context we shall be looking at is subordinate clauses headed by the complementizer *innu* 'that'.

#### 1. WH-MOVEMENT AND THE NULL SUBJECT PARAMETER

As in English, Levantine Arabic (LA) exhibits the *that*-trace effect. While the object may be extracted from a *that* clause in the formation of a Wh-question (3a), a subject NP may not be (3b) unless the complementizer *innu* is omitted (3c). Unlike in English, LA can make relatively free use of resumptive pronouns in Wh-questions. It is thus possible to question the subject position of a *that* clause if this position is marked by a resumptive pronoun, realized as a clitic on the complementizer *innu* (3d).

- (3) a. ?ayy fustaān, Fariid kaal innu l-bint ištaraṭ *e*<sub>i</sub>?  
Which dress did F. say that the girl bought?
- b. \*?ayy bint, Fariid kaal innu *e*<sub>i</sub> ištaraṭ l-fustaān?  
Which girl did F. say that bought the dress?
- c. ?ayy bint, Fariid kaal *e*<sub>i</sub> ištaraṭ l-fustaān?  
Which girl did F. say bought the dress?
- d. ?ayy bint, Fariid kaal inn-ha, ištaraṭ l-fustaān?  
Which girl did F. say that-she bought the dress?

While subject pronouns are freely droppable in main clauses in LA (4a), they cannot be omitted in a *that* clause (4b); instead they must be phonologically realized as a clitic pronoun on the complementizer (4c).<sup>2</sup>

- (4) a. (hiy) ištaraṭ l-fustaān.  
(she) bought the dress.
- b. \*Fariid kaal innu ištaraṭ l-fustaān.  
F. said that bought the dress.

- (4) c. Fariid kaal inn-ha ištaraṭ l-fustaān.  
F. said that-she bought the dress.

Finally, while the subject may be placed after the verb with varying degrees of freedom in main clauses in LA, such inversion is absolutely impossible in *innu* clauses, as shown in (5).

- (5) a. Fariid kaal innu l-bint ištaraṭ l-fustaān.  
F. said that the girl bought the dress.

- b. \*Fariid kaal innu ištaraṭ l-bint l-fustaān.

To summarize, in *innu* ('that') clauses Levantine Arabic displays all of the characteristics of a negative (English-like) setting for the null subject parameter. When we turn to the situation in the Bani-Hassan dialect (BHA), we find exactly the opposite state of affairs. In BHA there is no difference between subject and object position with respect to accessibility to Wh-movement in *innu* clauses. Both are freely extractable: cf. (6a) and (6b). The options of dropping the complementizer *innu* (6c) and employing a resumptive pronoun (6d) are also available, just as in Levantine Arabic.

- (6) a. wayy libaas, Fariid gaal innu al-binit ištaraṭ *e*<sub>i</sub>?  
Which dress did F. say that the girl bought?
- b. wayy binit, Fariid gaal innu *e*<sub>i</sub> ištaraṭ al-libaas?  
Which girl did F. say that bought the dress?
- c. wayy binit, Fariid gaal *e*<sub>i</sub> ištaraṭ al-libaas?  
Which girl did F. say bought the dress?
- d. wayy binit, Fariid gaal inn-ha, ištaraṭ al-libaas?  
Which girl did F. say that-she bought the dress?

Unlike in LA, BHA permits the use of null subject pronouns in *innu* clauses.

- (7) a. al-binit gaalat innu ištaraṭ al-libaas.  
The girl said that bought the dress.
- b. al-binit gaalat inn-ha ištaraṭ al-libaas.  
The girl said that-she bought the dress.

In fact, (7a), with the null subject pronoun, is the unmarked way of expressing 'the girl said that she bought the dress' (with or without an equi-subject interpretation). (7b), where the subject pronoun is phonologically realized, is only employed for emphasis on the subject. This difference between (7a) and (7b) can be understood as following from the 'avoid pronoun' principle, a discourse rule that enjoins the use of

phonologically null pronouns whenever the grammar permits. Since the option of null subject pronouns is unavailable for **innu** clauses in LA, the 'avoid pronoun' principle is not applicable in that dialect.

Finally, again unlike in LA, subjects of **innu** clauses may be freely inverted with the verb in BHA.

- (8) a. Fariid gaal innu al-binit ištara al-libaas.  
*F. said that the girl bought the dress.*
- b. Fariid gaal innu ištara al-binit al-libaas.  
*F. said that bought the girl the dress.*

## 2. LF RULES AND SUBJECT POSITION

Given that the Bani-Hassan dialect exhibits no contrast between subjects and objects with respect to accessibility to Wh-movement, the next question we want to ask is whether the same lack of contrast also obtains for rules of the LF component of the grammar, rules which help to specify the scope of certain quantifier-like expressions. As work by Kayne (1979) and many others since has shown, these expressions display subject/nonsubject distinctions that parallel the distribution of variables formed by Wh-movement in the syntax. We might therefore expect that such LF rules will also fail to show a subject/nonsubject contrast in BHA. But in fact this expectation is not supported by the data. The grammar of BHA displays subject/nonsubject contrasts similar to those that can be found in English.

The first of the two LF rules we shall discuss is that which helps to characterize the logical-form scope of Wh-in-situ expressions, which, given that BHA has obligatory Wh-movement in the syntax, will only arise in multiple questions. Following the original proposal of Chomsky (1973), we assume the existence of an LF rule of Wh-raising that raises a Wh-expression to the controlling interrogative Comp, where it may undergo absorption with another Wh-operator to give a complex operator. The rule of Wh-raising will thus transform the S-structure (9b) of a sentence such as (9a) into the LF representation (9c).

- (9) a. min ištara wušš?  
*Who bought what?*
- b.  $\text{min}_i [e_i \text{ ištara wušš}]$ .
- c.  $\text{wušš}_j \& \text{min}_i [e_i \text{ ištara } e_j]$ .  
*For what thing j and what person i, i bought j?*

Chomsky (1981) has proposed that the distribution of variables formed by Wh-raising (and hence derivatively the distribution of the Wh-in-situ

expressions themselves) follows from the Empty Category Principle (ECP), a condition on LF representations which requires empty categories to be properly governed. Expressed very informally, an empty category is properly governed by the lexical head of its phrase. In (9c),  $e_i$  is properly governed by the verb **ištara**. Certain analogical extensions of the basic government configuration are permitted to handle subject position variables. Very roughly stated, if an immediately preceding antecedent c-commands an empty category, that empty category will be said to be properly governed. Thus, in (9c)  $e_i$  is properly governed by **min**, its antecedent. Consider now the paradigm of (10).

- (10) a. \*min i9tigad innu min kisar al-šubbaak?  
*Who thought that who broke the window?*
- b. min i9tigad min kisar al-šubbaak?  
*Who thought who broke the window?*
- c. min i9tigad innu kisar miin al-šubbaak?  
*Who thought that broke who the window?*

The BHA contrast between (10a) and (10b) mirrors the contrast in the corresponding English sentences. In order to have a Wh-in-situ in the subject position of a complement clause, the complementizer **innu** must be omitted in order to satisfy the ECP by antecedent government. Note that BHA can also satisfy the ECP by taking advantage of the free inversion option not present in English, as in (10c) where the subject has been postposed to the verb and hence will satisfy the ECP by virtue of being properly governed by the verb.

The other LF rule that bears on the status of the ECP in Bani-Hassan Arabic is one that helps to characterize the scope of expressions quantified by the negative existential **walla**. When an NP quantified by **walla** appears in postverbal position the verb must be preceded by the particle **ma** (11b, c), which in other contexts marks sentential negation (11a). But when the negatively quantified NP appears in preverbal subject position (11d), the particle **ma** must be absent (11e).<sup>3</sup>

- (11) a. al-ṭalib ma gara al-ktaab.  
*The student didn't read the book.*
- b. al-ṭalib ma gara walla ktaab.  
*The student NEG read no book.*
- c. \*al-ṭalib gara walla ktaab.  
*The student read no book.*
- d. walla ṭalib gara al-ktaab.  
*No student read the book.*

- (11) e. \*walla taalib ma gara al-ktaab.  
*No student NEG read the book.*

Following Rizzi's (1982) interpretation of similar data in Italian, we shall assume that **ma** acts as a scope marker indicating that the NP quantified by **walla** has scope over the verb. We shall also assume the existence of an LF rule of quantifier raising (QR) that adjoins an NP quantified by **walla** to the clause in which **walla** appears. This rule will thus assign the sentences in (11b) and (11d) the LF representations of (12a) and (12b), respectively.

- (12) a. walla ktaab<sub>i</sub> [al- $\lambda$ taalib ma gara  $e_i$ ].  
 b. walla taalib<sub>i</sub> [ $e_i$  gara al-ktaab].

Since the QR rule adjoins the quantified NP to S the subject variable will meet the ECP by antecedent government. Hence, in general, negatively quantified expressions may appear in the subject position of an **innu** clause.

The negative existential quantifier in BHA becomes relevant to the ECP by virtue of the fact that with matrix clause verbs of desire and request a lower clause NP quantified by **walla** may be interpreted as having scope over the matrix clause provided that the latter is marked with the particle **ma**. An example appears in (13a). This sentence, which we assume to have the LF representation (13b), describes a situation in which the speaker asserts that there is no book that the teacher has asked the boy to read. (13a) can thus be true in a situation in which the teacher may never have spoken with the boy. It thus contrasts with (13c), where **ma** is in the subordinate clause. This sentence asserts that the teacher has asked the boy to read no book and hence must have spoken with the boy.

- (13) a. al-m9allim ma  $\lambda$ alab min al-walad innu yigra walla ktaab.  
*The teacher asked from the boy that (he) read no book.*  
 b. walla ktaab<sub>i</sub> [al-m9allim ma  $\lambda$ alab min al-walad innu yigra  $e_i$ ].  
 c. al-m9allim  $\lambda$ alab min al-walad innu ma yigra walla ktaab.  
*The teacher asked from the boy that (he) read no book.*  
 d. al-m9allim  $\lambda$ alab min al-walad<sub>i</sub> [innu [walla ktaab<sub>i</sub> [ $e_i$  ma yigra  $e_i$ ]]].

Now if we accept that the rule of QR can move an NP past the complementizer **innu** in (13a) we can ask whether the same wide scope will be possible when the quantified NP appears in subject position. The answer turns out to be no. Sentence (14a) may not be associated with the LF representation of (14b); rather it has the interpretation of a denial that

the teacher asked that no student read that book; i.e. the interpretation of a double negation, as indicated in (14c).

- (14) a. al-m9allim ma  $\lambda$ alab innu walla taalib yigra al-ktaab ha $\delta$ aak.  
*The teacher NEG asked that no student read that book.*  
 b. \*walla taalib<sub>i</sub> [al-m9allim ma  $\lambda$ alab innu  $e_i$  yigra al-ktaab ha $\delta$ aak].  
 c. al-m9allim ma  $\lambda$ alab innu [walla taalib<sub>i</sub> [ $e_i$  yigra al-ktaab ha $\delta$ aak].

A logical form representation in which the subject of an **innu** clause has wide scope is possible in BHA, but it must arise from an S-structure such as (15a), where the quantified NP is in postverbal position.

- (15) a. al-m9allim ma  $\lambda$ alab innu yigra walla taalib  $\lambda$ al-ktaab ha $\delta$ aak.  
*The teacher NEG asked that read no student that book.*  
 b. walla taalib<sub>i</sub> [al-m9allim ma  $\lambda$ alab innu yigra  $e_i$  al-ktaab ha $\delta$ aak].

Like the facts regarding the distribution of Wh-in-situ, the contrast between (14b) versus (13b) and (15b) indicates that the variable arising from QR is not properly governed in the preverbal subject position of an **innu** clause and hence that it violates the ECP. This behavior contrasts with that exhibited by postverbal subjects and objects, which are properly governed by the verb and hence satisfy the ECP.

To summarize, the LF rules involved in the interpretation of Wh-in-situ and quantifiers exhibit a subject/nonsubject asymmetry in BHA just as in English. Given that this is true, it then becomes mysterious why *that*-trace violations are possible for the syntactic rule of Wh-movement in BHA. Why should the subject position of an **innu** clause be accessible to Wh-movement in the syntax but remain inaccessible to extraction rules of the LF component? An explanation, originally proposed by Rizzi (1982) for a similar state of affairs in Italian, that has a strong *prima facie* plausibility is to assume that the syntactic rule of Wh-movement does not in fact extract the subject of an **innu** clause from preverbal position but rather from postverbal position, an option generally available in the pro-drop languages. According to this proposal, the S-structure associated with (16a) is not (16b), where the empty category variable appears in preverbal position, but rather (16c), where the variable appears in postverbal position and hence is properly governed by the verb.

- (16) a. wayy binit Fariid gaal innu i $\lambda$ tarat al-libaas?  
*Which girl did F. say that bought the dress?*  
 b. wayy binit<sub>i</sub> Fariid gaal innu  $e_i$  i $\lambda$ tarat al-libaas.  
 c. wayy binit<sub>i</sub> Fariid gaal innu i $\lambda$ tarat  $e_i$  al-libaas.

If we accept this proposal we can then maintain that the preverbal subject position of an **innu** clause in BHA is inaccessible to long extraction in both the syntactic and the LF components of the grammar, just as in LA and English.

### 3. MIN AND MIIN

There is a certain amount of independent evidence for the postverbal source of a Wh-questioned subject of an **innu** clause in the Bani-Hassan dialect. Like some other dialects of the Arabian Peninsula, BHA has two different forms for the word 'who'. In BHA they appear as **min** and **miin**. **Miin** occurs to the exclusion of **min** when object of a verb or preposition, while **min** occurs to the exclusion of **miin** in preverbal subject position of a verb such as **ḍarab** 'hit' or **kisar** 'break' (or more accurately stated, when the variable associated with **min** appears in preverbal subject position).

- (17) a. *min/\*miin ḍarab miin/\*min.*  
           *who hit who?*
- b. *ma9a miin/\*min raah Fariid al-suug?*  
           *with who did F. go to the market?*

Now, crucially, in multiple questions there is a contrast in the distribution of **min** and **miin** between pre- and postverbal position. This is shown by the paradigm in (18). (18a) is excluded, regardless of whether we have **min** or **miin** in preverbal subject position since with the complementizer **innu** present we have an ECP violation. When the complementizer is omitted, however, **min** occurs to the exclusion of **miin** (18b). But when the inversion option is chosen for the subject, then it must appear as **miin**. **Min** is strongly rejected.

- (18) a. *\*min i9tigad innu min/miin kisar al-šubbaak?*  
           *Who thought that who broke the window?*
- b. *min i9tigad min/\*miin kisar al-šubbaak?*  
           *Who thought who broke the window?*
- c. *min i9tigad innu kisar miin/\*min al-šubbaak?*  
           *Who thought that broke who the window?*

A similar contrast between pre- and postverbal subject position for variables is illustrated by the pair of sentences in (19). In (19b), the S-structure associated with (19a), the variable bound by *who* is in preverbal position and hence we have **min**. But in (19d), the S-structure associated with (19c), the object **wuṣṣ** has undergone Wh-movement while the subject 'who' is in postverbal position, hence it must surface as **miin**.

- (19) a. *min/\*miin ištara wuṣṣ?*  
           *Who bought what?*
- b. *min<sub>i</sub> [e<sub>i</sub> ištara wuṣṣ].*
- c. *wuṣṣ ištara miin/\*min?*  
           *What did who buy? (i.e. Who bought what?)*
- d. *wuṣṣ<sub>j</sub> [e<sub>i</sub> ištara miin<sub>i</sub> e<sub>j</sub>].*

Not enough descriptive work has been done on BHA to permit a detailed analysis of the distribution of **min** and **miin**. We shall have to be content with the tentative generalization that **miin** occurs when the variable associated with 'who' is lexically governed (i.e. when complement to a preposition or verb or in inverted subject position), while **min** appears when 'who' is not lexically governed (i.e. in preverbal subject position).<sup>4</sup>

The immediate importance of the **min/miin** distinction is that it provides a way of distinguishing the preverbal from postverbal source of the word. Capitalizing on this distinction, we ask what form the Wh-operator will take when the subject of an **innu** clause is questioned. If we are correct in supposing that in BHA extraction proceeds from the postverbal position, then we predict that the extracted operator should appear as **miin** and not **min**. This prediction is confirmed by the contrast in (20).

- (20) a. *miin/\*min Fariid gaal innu kisar al-beeḍa?*  
           *Who did F. say that broke the egg?*
- b. *min/\*miin Fariid gaal kisar al-beeḍa?*  
           *Who did F. say broke the egg?*

Interestingly, when the complementizer **innu** is omitted, the distribution of **min** and **miin** reverses. Only **min** is possible to the exclusion of **miin** (20b). The contrast between (20a) and (20b) thus indicates that when the Wh-word can be extracted from preverbal subject position this option is strongly favored to the exclusion of extraction from postverbal position. Perhaps this can be explained by appeal to the notion that when two alternative derivations are available for the same D-structure, the shorter one (in this case the one without subject inversion) is selected.

To summarize the results of this section, it has been argued that the apparent *that*-trace violations possible in BHA in contrast to LA are to be explained by the hypothesis that extraction proceeds from postverbal subject position, an option that is available in BHA but not in LA due to the pro-drop parameter. In addition to explaining the dialect difference, this hypothesis also explains why the syntactic rule of Wh-movement

free subject  
inversion

appears to behave differently from LF rules with respect to the accessibility of subject position of *innu* clauses. Finally, it was contended that the distribution of the question words *min* and *miin* independently support the postverbal source of subject extraction in *innu* clauses. We are thus able to conclude that preverbal subject position of *that* clauses is as inaccessible to long Wh-extraction in Bani-Hassan Arabic as it is in Levantine Arabic or in English.

Further evidence in support of this position comes from situations in which, for whatever reason, subject inversion is blocked in an *innu* clause. We predict that in such cases Wh-subject extraction should be impossible and recourse to a returning pronoun required. Cases of this sort are discussed in the next section.

#### 4. INFLECTION AND THE NULL SUBJECT PARAMETER

We have so far not made any specific proposal as to the exact nature of the null subject parameter, i.e. with respect to the question of what exactly is the difference between the grammars of the BHA dialect on the one hand and the LA dialect on the other that yields the quite systematic differences we have observed? We shall not attempt an answer to this difficult question here. We can, however, discuss some additional evidence that indicates that the difference between the two grammars, whatever it may be, is situated in the verbal inflection exhibited by the clause.

The features of verbal inflection that play a central role with respect to core grammar appear to be two: whether the verb is tensed or not and whether or not the verb shows agreement with the subject for person.

- |         |                 |             |
|---------|-----------------|-------------|
| (21) a. | +tense, +person | finite      |
| b.      | -tense, +person | subjunctive |
| c.      | +tense, -person | participle  |
| d.      | -tense, -person | infinitive  |

Only the first three of the four possible forms in (21) are attested in modern colloquial Arabic dialects. Finite verbs exhibit independent selection for the categories of tense/aspect. They may thus appear in main clauses as well as in *innu* 'that' clauses complement to verbs such as *gaal* 'say', *i9tigad* 'think', etc. Subjunctive denotes verbs that exhibit no independent selection for tense/aspect but nevertheless show full obligatory agreement with the subject. Since Arabic lacks the combination of features in (21d), we find the subjunctive form of the verb in many environments where the infinitive would be used in English; e.g. the appearance of controlled PRO requires the verb to appear in the subjunctive. Verbs such as *talab* 'ask', *haawal* 'try' subcategorize for complement clauses with subjunctive verbal inflection. Like many other modern colloquial Arabic dialects, BHA has developed a verbal form used to

express certain aspectual distinctions that is traditionally called participial, because of its nominal origin (cf. Aoun 1979 for discussion). In BHA one of its uses is to express the present perfect aspect. Although the participial verbal form is clearly a verb, as shown by a variety of syntactic, morphological, and phonological tests (see Haddad 1984 for discussion), it continues to display one relic of its nominal origin, namely failure to inflect for person. The participle in BHA only shows distinctions in gender (masculine versus feminine) and number (singular versus plural).

The relevance of the participle to this paper is that when the verb appears in this form in BHA, the clause has a negative setting for the null subject parameter, as shown by the paradigm in (22). In contrast to the perfect ([+tense, +person]) form of the verb, participial ([+tense, -person]) inflection does not permit subject pronouns to be omitted (22a), does not permit inversion of the subject after the verb (22b), and, as the theory developed in preceding sections predicts, participial inflection does not permit extraction of the subject of an *innu* clause under Wh-movement without the insertion of a resumptive pronoun (22c).

- (22) a. Fariid gaal \*innu/inn-ha mištarya al-libaas.  
*F. said that/that-she has bought the dress.*
- (cf. Fariid gaal innu ištara al-libaas.  
*F. said that (she) bought the dress.*
- b. \*Fariid gaal innu mištarya al-binit al-libaas.  
*F. said that has bought the girl the dress.*
- (cf. Fariid gaal innu ištara al-binit al-libaas.  
*F. said that bought the girl the dress.*
- c. wayy binit, Fariid gaal \*innu/inn-ha, mištarya al-libaas?  
*Which girl did F. say that/that-she has bought the dress?*
- (cf. wayy binit Fariid gaal innu ištara al-libaas?  
*Which girl did F. say that bought the dress?*

These data indicate that the potential for inflection for person is a necessary condition for a clause to exhibit the null subject phenomenology and thus tend to support Rizzi's (1982) view of the null subject parameter as involving the possibility of assigning the feature pronominal to the Inflectional constituent of the clause. Pronouns, of course, are the only nominal categories that show person distinctions; indeed, distinction in person is an intrinsic feature of pronouns. Hence, one might reason that if a category fails to inflect for person, then it cannot accept the feature pronominal.<sup>5</sup>

Another paradigm making the same point appears in (23). In Arabic the verb 'to be' is not expressed in the present tense (23a). If verbal inflection for person is a necessary condition for a positive setting of the

*I say, report  
does*

null subject parameter, we predict that **innu** clauses with a predicate nominative construction in the present tense should exhibit a negative setting. This prediction is confirmed. Subject pronouns cannot be omitted (23b), inversion is impossible (23c), and a resumptive pronoun is required if the subject of an **innu** clause is questioned (23d).

- |      |   |  |
|------|---|--|
| (23) | <i>Present Tense</i>  | <i>Past Tense</i>  |
| a.   | Widaad m9allma.<br>W. (is) a teacher.   | Widaad kaanat m9allma.<br>W. was a teacher.  |
| b.   | Fariid gaal *innu/inn-ha<br>m9allma.<br>F. said that/that-she (is) a<br>teacher.  | Fariid gaal innu/inn-ha kaanat<br>m9allma.<br>F. said that/that-she was a<br>teacher.  |
| c.   | *Fariid gaal innu m9allma<br>Widaad.<br>F. said that a teacher (is)<br>Widaad.  | Fariid gaal innu kaanat<br>Widaad m9allma.<br>F. said that was Widaad a<br>teacher.  |
| d.   | wayy binit <sub>i</sub> Fariid gaal *innu/<br>inn-ha <sub>i</sub> m9allma?<br>which girl did F. say that/that-<br>she (is) a teacher? | wayy binit <sub>i</sub> Fariid gaal innu/<br>inn-ha <sub>i</sub> kaanat m9allma?<br>which girl did F. say that/that-<br>she was a teacher? |

#### CONCLUSION

In this paper we have shown that systematic variation among the properties of (1) can be found outside of the more extensively studied (from the generative viewpoint) Western European languages. At the very least this encourages the belief that the null subject parameter is a genuine category of core grammar that is worthy of further study. The Arabic data indicate that the setting for this parameter can be a function of clause type rather than being a gross feature of the grammar as a whole. The data from the Bani-Hassan dialect show that the setting of this parameter can be directly affected by the nature of the verbal inflection of the clause. Further research should attempt to identify additional factors that influence the setting for this parameter in order to arrive at a truly explanatory account of its properties.

#### NOTES

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assistance. My transcriptions for the Bani-Hassan material abstract away from a number of phonological rules, for which see Irshied and Kenstowicz (1984).

<sup>2</sup> Finite verbs exhibit obligatory agreement for person, number, and gender with the subject. The text examples have been cited with 3 singular feminine subjects, marked by the suffix **-at** on a perfect verb. Michal Allon Livnat (personal communication) informs me that while Somali has a positive setting for the null subject parameter in main clauses, it has a negative setting in *that* clauses. See Livnat (1984: 79–82) for discussion.

<sup>3</sup> (11e) is not ungrammatical. It is just not associated with the LF representation "There is no student who read the book"; rather, it is associated with a double negative interpretation "there is no student who did not read the book". Interestingly, the appearance of **ma** relative to the linear position of the quantified expression in S-structure carries over to at least two other constructions. Postposed subjects quantified by **walla** require the scope particle (**ma**) **gara walla taalib al-ctaab** 'no student read the book' while a focused object appearing before the verb requires the particle to be dropped (lest a double negative reading be imposed): **walla ktaab al-taalib (ma) gara** 'there is no book the student read'.

<sup>4</sup> The **min/miin** distinction also appears to be tied up with ergativity. With verbs such as **maat** 'die' and **ingital** 'be killed' there is a strong preference to express the subject with **miin** instead of **min**: **miin/min maat** 'who died?', **miin/min ingital** 'who got killed?'. These data indicate an S-structure in which the variable appears in postverbal position. The ergative verbs require much further study than I have been able to devote to them at this writing. (Thanks to Dominique Sportiche for suggesting the possible relevance of ergativity to the distribution of **min** and **miin**.)

<sup>5</sup> There is an interesting contrast between a Wh-variable and a *pro* subject of participial clauses when the complementizer **innu** is omitted. The variable is possible, but *pro* is not.

- (i) wayy binit Fariid gaal mištarya al-libaas?  
Which girl did F. say has bought the dress?
- (ii) \*Fariid gaal mištarya al-libaas.  
F. said that has bought (fem.) the dress.

Perhaps this contrast is to be explained by appeal to the notion that participial inflection is not 'rich' enough to identify the *pro* subject; a variable would not suffer the same fate since it has overt identification — its antecedent.

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