

INDIVIDUATION AND DIFFERENTIAL OBJECT MARKING*

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1. Introduction

Differential Object Marking (DOM) is a common cross-linguistic phenomenon in which the morphological case marking of the direct object is determined by certain semantic factors such as definiteness, specificity, animacy, topicality, etc. (Silverstein 1976; Comrie 1989; Bossong 1991; Aissen 2003; López 2012; Kagan 2020, among others). Turkish is a characteristic language with DOM (e.g., Enç 1991; De Hoop & De Swart 2009). In Turkish, the morphological marking on the direct object depends on the semantic-pragmatic factor of specificity as demonstrated in (1).

- (1) a. Ali bir kitab- *(1) aldi
Ali one book-ACC bought
'A book is such that Ali bought it.'
- b. Ali bir kitap- (*1) aldi
Ali one book-ACC bought
'Ali bought some book or other.'
- (Enç 1991: 5 (4-5))

When the object is interpreted as specific as in (1a), it is obligatorily marked with accusative case marking. In contrast, in (1b), when the object is interpreted as non-specific, the presence of accusative marking results in ungrammaticality.

The paper is structured as follows. In section 2, I introduce the basic properties of DOM in Levantine Arabic (henceforth: LA)¹. Section 3 shows that DOM is sensitive to topicality. Section 4 builds and develops Brustad's (2000, 2008) generalization about DOM in Syrian Arabic. In section 5, I build the foundation for my proposal by determining which properties trigger DOM restrictions in LA. In section 6, I argue that the property of clitic doubling accounts for the individuated noun restriction. This restriction is explained through the anaphoric properties of the pronominal clitic which ban non-individuated nouns from emerging in the DOM construction. I build upon den Dikken's (2019) structure

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¹ My informants are Druze from the upper Galilee region of Israel. They speak a dialect that is closely related to and mutually intelligible with those of the Druze in southern Lebanon and southwestern Syria.

by representing PERSON within the syntactic structure of the noun phrase as a specifier of the number projection, thus I analyze the noun phrase as a clitic doubling structure which accounts for the empirical DOM data presented in the paper. Section 7 concludes.

2. The basic properties of DOM in LA

In this section I concentrate on the basic structural properties of DOM constructions in Arabic. In particular, the DOM pattern involves a dative case marker *la-* that marks only definite nominals. Also, as observed by Aoun (1999) and Hallman and Al-Balushi (2018), the construction necessarily involves clitic doubling.

Several Arabic dialects (Lebanese, Syrian Arabic and sub-dialects of Levantine Arabic) allow a construction that has been characterized as an instantiation of DOM (Khan 1984; Aoun 1999; Brustad 2000). Abu-Haidar (1979) first observed that, like Levantine Arabic, the DOM structure in Lebanese Arabic does not occur with indefinite nominals. The Levantine Arabic example below demonstrates that only definite objects license DOM.

- (2) šof-t-a la-*(I)-mʕlm-e
 saw-1SG.PST-3F.SG.ACC DOM-the-teacher-F.SG
 'I saw the female teacher.'

The second basic property of DOM in LA is that marked objects are expressed by a dative case marker *la-*. I demonstrate that DOM corresponds to the alternation between accusative (absence of marking) and dative. Unlike with Turkish, I show that there are two distinct forms for definite direct objects in LA which are determined by different semantic factors explained in Section 3.

- (3) a. šof-t-a la-s-sabeyy-e
 saw-1SG.PST-3F.SG.OBJ DAT-the-young lady-F.SG
 'I saw the young lady.'
- b. šof-et s-sabeyy-e
 saw-1SG.PST the-young lady-F.SG.ACC
 'I saw the young lady.'

Example (3) shows a transitive construction in which the same definite argument *s-sabeyye* 'the young lady' bears two distinct case markings. In (3a), the definite argument must be marked with dative, while in (3b), is accusative (unmarked).

Additionally, some DOM languages show that the exponents of DOM and the dative case are similar (see Bány 2018 on Spanish, Hindi and other languages). In LA we also find dative case marking in DPs with directional (4a) or indirect objects (4b):

- (4) a. roH-et la-s-sabeyy-e
 go-1SG.PST DAT-the-young lady-F.SG

'I went to the young lady.'

- b. aʃt-et al-ktaab la-s-sabeyy-e
 give-1SG.PST the-book DAT-the-young lady-F.SG
 'I gave the book to the young lady.'

In turn, the same case marking found with such dative DPs also appears in the DOM construction.

A further property of DOM in LA is that the DOM construction in LA obligatorily involves clitic doubling: the pronominal element which attaches to the verb must co-refer with the subsequent definite DOM-object (Levin 1987). Brustad (2000: 353) calls this pronominal element resumptive. However, Aoun (1999) first classified the construction as clitic doubling, which is the terminology that I adopt.

The following examples demonstrate that the clitic is obligatory, and the clitic attaches to the verb and its associate (the DP it doubles) must co-refer.

- (5) a. sara šaf-at-*(a)_i la-s-sabeyy-e_i
 Sara see-3F.SG.PST-F.SG.OBJ DOM-the-young lady-F.SG
 'Sara saw the young lady.'
- b. sara šaf-at-*(on)_i la-l-mʃalm-iin_i
 Sara see-3F.SG.PST-3PL.OBJ DOM-the-teacher-M.PL
 'Sara saw the male teachers.'
- c. sara šaf-at-*(ak)_i la-ʔlak_i
 Sara see-3F.SG.PST-2M.SG.OBJ DOM-2M.SG.DAT
 'Sara saw you.'

These examples show that the doubled DP and the clitic are co-indexed. Example (5a) shows agreement between the doubled DP and the clitic in number and gender. (5b) shows agreement only in number since the third plural accusative pronoun is not specified for gender in LA. (5c) shows agreement in number, gender and person. In the following section, I demonstrate that topicality is a relevant factor in the emergence DOM in LA.

3. Topicality as a trigger for DOM in LA

In this section I argue that topicality triggers DOM in LA. I adopt Reinhart's (1981) notion of the 'Aboutness topic' wherein a sentence topic is what the sentence is about. Consider the following scenario:

Two students were having a conversation on their favorite world cup teams, one of the classmates disappointedly asked:

- (6) a. lee b-tšajeʃ-a la-l-brazil
 why PRS-support.2M.SG-F.SG.OBJ DOM-the-Brazil

'Why do you support the Brazil team?'
 = 'As for the Brazil team, why do you support it?'

- b. * lee b-tšajeŋ 1-brazil
 why PRS-support.2M.SG the-Brazil
 'Why do you support the Brazil team?'
 = 'As for the Brazil team, why do you support it?'

The scenario in (6) shows that DOM is required when 'the Brazil team' is interpreted as an aboutness topic. However, when the same argument acts as a new information focus, DOM is banned, as shown in (7B'):

Two classmates were talking about the world cup, A asked B:

(7) A: ay fariq b-tšajeŋ?
 which team PRS-support.2M.SG
 'Which team are you supporting?'

B: b-šajeŋ 1-brazil
 PRS-support.2SG the-Brazil
 '(I) support Brazilian team.'

B': * b-šajeŋ-ha la-l-brazil
 PRS-support.1SG-3F.SG.PST DOM-the-Brazil
 '(I) support Brazilian team.'

To briefly summarize, I have shown that DOM objects in LA are:

- (8) a. definite
 b. marked with a dative case marking
 c. obligatorily clitic doubled
 d. sensitive to topicality

4. Individuated nominals and DOM

In this section I develop Brustad's (2000, 2008) generalization that the DOM construction in LA exists only with individuated nouns.² The observation I provide to support this generalization is that DOM appears with count nominals, particularly when there is a visible morphological marking of number.

² Khan (1984) discusses this construction and draws a conclusion that the construction appears only with individuated nouns. He classifies individuated nouns differently than what is proposed here. See Khan's (1984: 470) features of individuation.

- b. * aHmad baʕ-a la-z-zefte
 Ahmad sell.3M.SG.PST-F.SG.OBJ DOM-the-asphalt.MASS
 'Ahmad sold the asphalt.'
- c. * sara šara-at-o la-l-aθaθ
 Sara buy-3F.SG.PST-M.SG.OBJ DOM-the-furniture.MASS
 'Sara bought the furniture.'

The last observation I discuss is made by Brustad (2008). When the noun allows two plural forms, that is a feminine SP marking and a collective form, DOM is possible only with the sound feminine plural (individuated) but never with the collective (non-individuated nouns; called batch nouns in Borer and Ouwayda 2010). In Arabic, the collective form can derive a singular form called the SINGULATIVE⁵, illustrated in (13).

- (13) a. Collective: *jaaj* chicken.COLL.M 'group of chickens'
 b. Singulative: *jaaj-e* chicken-F.SG 'a chicken'
 c. SP_F: *jaaj-a-āt* chicken-F.SG-SP_F 'individual chicken'

In Arabic, some singulatives can have two plural forms: collective and SP. In a non-DOM context, the collective and the SP are both possible:

- (14) sara šara-at al-jaaj/l-jaaj-āt
 Sara buy-3F.SG.PST the-chickens.COLL.M/ the-chickens-SP_F
 'Sara bought the flock/ individual chickens.'

Assuming that the SP is individuated and the collective is not, I predict that DOM is licit only with the feminine SP and not with the collective:

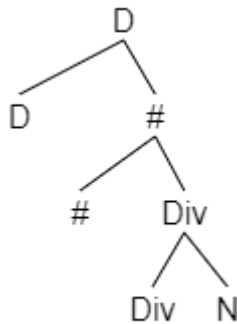
- (15) a. sara šara-at-on la-l-jaaj-āt
 Sara buy-3F.SG.PST-3PL.OBJ DOM-the-chicken-SP_F
 'Sara bought the chickens.'
 = 'Sara bought particular individual chickens.'
- b. *sara šara-at-o la-l-jaaj
 Sara buy-3F.SG.PST-3M.SG.OBJ DOM-the-chicken.COLL.M
 Intended: 'Sara bought that kind/flock of chickens.'

To summarize, I have discussed four types of supporting evidence for the empirical generalization, namely that only individuated nouns are compatible with DOM in LA. This generalization can theoretically be reformulated since only nominals that contain a divider projection (DIV in Borer 2005a) are subject to DOM. Borer (2005) proposes two distinct

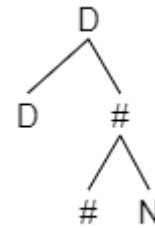
⁵ The singulative is derived through gender shift: collective.MASC → singulative.F.SG

syntactic structures for count and mass nouns. As noted by Borer, I assume that a divider is associated with count properties, and that mass properties appear in the absence of a divider. In turn, I draw the conclusion that the collective and mass nouns lack DIVP, as shown in Borer (2005a) and Ouwayda (2014), thus blocking the DOM structure.

(16) a. Count structure



b. Mass structure



In the following section I present the main components of the proposal.

5. Framing the proposed components

Above, I have demonstrated that DOM is only possible with individuated structures. The question then is are any of the properties we have seen in Sections 2 and 3 responsible for the restriction to individuated nouns? By investigating each individual property, I ask:

- (17) a. Is this restriction because of dative marking?
 b. Is it because of topicality?
 c. Is it because of clitic doubling?

5.1 Datives

Cross-linguistically, there is a debate whether clitics are assigned case. In some clitic-doubling languages (e.g., Romanian) the clitic is assigned case (e.g., Dobrovie-Sorin 1990; Irimia 2020), while in other languages, like Basque, Nevins (2011) proposes that clitics lack case. I assume for LA that the doubled DP is assigned dependent Case as the two DPs (the clitic and the doubled DP) appear in the same VP local domain. Accordingly, they should both receive accusative case. Once the clitic is assigned accusative, we observe a case shift of the doubled DP argument from accusative to dative, thus this switch can be considered an instantiation of the dative dependent case.^{6,7}

⁶ I remain agnostic about whether the acc-dat is due to morphological or syntactic reasons.

⁷ This analysis needs further work.

As for the question whether the dative marking can account for the individuation restriction, it is not obvious that dative marking should be the reason for the individuated noun restriction. Mass and collective nouns, those that are banned with DOM, can both be marked as either accusative or dative:

- (18) aʃt-et akil la-l-baqar/la-n-nas
 give.1SG-PST food DAT-the-cow.COLL/DAT-the-people.MASS
 'I gave food to the (herd of) cows/ the people.'

I conclude that there is no straightforward syntactic restriction on non-individuated nouns. In the next section I investigate the property of topicality.

5.2 Topicality

Cross linguistically, clitic doubling is restricted to topic structures (Kallulli 2000; Dočekal and Kallulli 2012). I have argued in Section 3 that in LA DOM arises in topic constructions. Thus, it is not surprising to find clitic doubling in DOM.

It is not apparent that topicality should be the reason for the individuated restriction either, given that mass and collective nouns can serve as topics, as illustrated in (19) and (20) for mass and collectives respectively:

- (19) *A and B are talking, A said:*
 smeʃte...? ʃmbH-ko ʔnno d-dahab g'eli
 hear-2F.SG.PST say-3PL.PRS that the-gold.MASS cost more.PRS
 'Did you hear? It has been said that gold has gotten more expensive.'
- (20) smeʃte...? ʃmbH-ko ʔnno al-baqar merd axer fatra
 hear-2F.SG.PST say-3PL.PRS that the-cows.COLL sick.3M.SG.PST last period
 'Did you hear? It has been said that the cows (herd) have recently gotten sick.'

These examples demonstrate that mass and collective nouns can serve as an aboutness topic. And, since the semantic core of a topic is known as aboutness (e.g., Reinhart 1981), in turn, I conclude that there is no semantic restriction posed on non-individuated nouns.

Thus, I conclude that neither dative nor topicality properties account for DOM's individuated noun restriction. Let me now turn to the clitic doubling property.

5.3 Clitic doubling

In this section, I investigate whether clitic doubling might account for the individuated noun restriction. The question is whether there something about this particular instantiation of grammatical expression of topicality that might be responsible. Given that we are examining clitic doubling structures, anaphoric properties are also involved. The anaphoric

properties are represented when the doubled DP and the clitic must co-refer as demonstrated in section 2. The anaphoric condition is tied to the presence of the clitic, in turn, I ask the question whether the clitic which anaphorically refers to the DP is responsible for this restriction.

I propose that the anaphoric properties of the pronominal clitic account for the individuated restriction. These anaphoric properties block non-individuated nouns from emergence in DOM structures.

The intuition for the proposal comes from the observation that the availability of an anaphoric reading is restricted with mass nouns (Chierchia 1998; Dayal 2004; Despić 2019). In this section, I demonstrate that pronouns cannot be used anaphorically with both mass nouns and collectives in LA.

Firstly, I show that individuated nouns, which are compatible with DOM (as shown in section 4), are acceptable antecedents to referential pronouns:

- (21) al-baqar-āt brʕ-o brra. bdde atʕme-hon
 the-cow-SP_F graze-3PL.PRS outside. want.1SG.PRS feed.1SG.PRS-3PL.OBJ
 'The cows graze outside. (I) want to feed them.'

In contrast, collective nouns, which are incompatible with DOM, cannot behave as antecedents to referential pronouns:

- (22) al-baqar brʕa brra. *bdde atʕme-h
 the-cow.COLL graze.3M.SG.PRS outside. want.1SG.PRS feed.1SG.PRS-3M.SG.OBJ
 'The cows graze outside. (I) want to feed them.'

Further, I have shown in section 4 that BPs with DOM only have a unit interpretation. When they are employed anaphorically, the only licit pronoun is the individuated (the plural form) but not the collective.

- (23) feš ktiir šbabiik fl-bet. bndaf-on/*-a b-sorʕa
 neg many windows.BP in-home. clean-1SG.PRS.SUBJ-3PL.OBJ/*3F.SG.OBJ in-
 quickness
 'There are not many windows at home. (I) clean them quickly.'

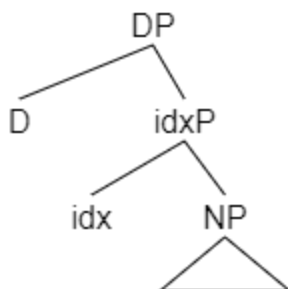
With these facts I conclude that while dative case and topicality are not responsible for DOM's individuated noun restriction, clitic doubling does play a role in this restriction because it involves anaphoric relations. Anaphoric relation can be established with individuated nouns; however, this anaphoric relation cannot be established between pronouns and collectives, kinds, or mass nouns.

6. Proposal

I present my proposal in two parts. The first part addresses the following question: is anaphoricity represented in syntax and how? The second part concentrates on the relation

between anaphoricity and individuation. Let me begin with the first question. For definite expressions to be anaphoric, they must include semantic indices in their syntactic structure (e.g., Schwarz 2009; Hanink 2021). This is illustrated in Hanink's (2021: 507(4)) structure:

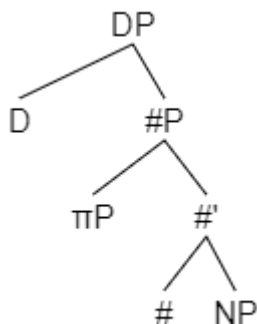
(24)



The structure in (24) shows that semantic indices are present in the syntactic structure, located between the determiner and NP. However, based on the structure, it is not obvious why indexical structure should be tied to individuation. I adopt Kučerová (2018) who proposes the necessity of a person feature for the derivation of the semantic index.

In the second part of the proposal, I adopt den Dikken's (2019) syntactic structure for the position of person. Crucially, he proposes that the person feature is strongly correlated to the presence of the number projection as illustrated in the structure:

(25)



In (25), number (#) is not distinguished from Div as they are collapsed. As discussed in section 4, DIVP represents individuated nominals. den Dikken (2019) shows an explicit connection between person and number. Person is represented within the syntactic representation of the noun phrase as a specifier of number projection, #P.

I propose that the structure of den Dikken can give rise to clitic doubling. I adopt the minimal pronoun approach that π P/index is reminiscent of the syntactic structures proposed for pronouns (Kratzer 2009; Hanink 2021, among others). Thus, I analyze the structure in (25) as a structure of clitic doubling because it clearly combines both a pronoun and an individuated NP which are the components of clitic doubling in LA.

The logic of the proposal is as follows. First, I have established in section 3 that DOM objects are obligatory topics and the way to encode topicality in LA is with a clitic. I assume that clitics are pronouns. Further, I have demonstrated that pronouns are restricted in their anaphoric capacity as they cannot refer to non-individuated nouns (i.e., mass and collectives). The way to encode anaphoricity in syntax is by employing a semantic index (Hanink 2021, a.o) and then I proceeded that a person feature is necessary to derive this semantic index (Kučerová 2018). Since non-individuated nouns lack DIVP (Borer 2005a), I propose that their syntactic representation cannot contain a person feature (partially based on den Dikken's 2019 structure). In turn, non-individuated nouns cannot be used anaphorically. That is, they cannot appear in clitic doubling structure since clitic doubling obligatory involves an anaphoric relation between the doubled-DP and the clitic.

Two consequences of the proposal are: (a) individuated nouns contain a DIVP and resultingly person, which is located in the specifier of DIVP, is successfully merged, thus individuated nouns are allowed in a clitic doubling structure; (b) non-individuated (mass and collective) nouns lack DIVP, and as a result, person features cannot project, therefore, they resist the clitic doubling structure.

7. Conclusion

The paper presented empirical data that builds and develops Brustad's (2000, 2008) generalization about DOM in Arabic that only individuated nouns are compatible with DOM. My investigation of DOM focused on the two questions: (i) what are the properties of DOM in LA? and (ii) can any of these properties account for the restriction to individuated nouns?

I have examined each individual property of the DOM structure to account for the individuated nouns restriction. I proposed that clitic doubling is responsible for this restriction. The proposal ties the issue of individuation within the DOM construction to anaphoricity. I analyzed den Dikken's (2019) syntactic structure of person as a clitic doubling structure since it simultaneously links two components: anaphoricity and individuation. This structure accounts for the DOM empirical data presented in the paper and demonstrates that when the nominal expression includes a DIVP, the anaphoric relation can be easily established and π P must project. The exact details of person feature valuation mechanism remain an open question for further investigation.

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