

The morphosyntax of definiteness agreement in Neo-Aramaic and Central Semitic

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1. Introduction

The question we seek to answer in this paper is: How did the multiple marking of definiteness within the noun phrase develop in Central Semitic? We propose an answer based on the study of Neo-Aramaic, a modern Central Semitic language, and in particular on the process by which the definite article developed in Neo-Aramaic on the basis of its demonstrative pronouns. We suggest that the development in ancient Central Semitic could have paralleled the one in Neo-Aramaic.

We thus argue (contra Pat-El 2009) that definiteness in Semitic originates like in other languages as part of Greenberg's 1978 "demonstrative cycle" of grammaticalizing the demonstrative pronoun as a definite article (cf. Lyons 1999, Gelderen 2007, 2011):

Greenberg's demonstrative cycle

stage I stage II stage III stage IV
demonstrative pronoun > definite article > marker of argumenthood > class marker

2. Multiple marking of definiteness

Languages of the world often mark definiteness on the noun or the determiner (Dryer 2013), but multiple marking of definiteness is less common, and, in particular, definiteness marking of the attributive adjective is not common. One sub-group of Semitic languages, Central Semitic, which includes Arabic, Hebrew, and Aramaic, systematically marks definiteness in a structure with a definite affixal article (DEF), often reconstructed as **hal* or **han*, attached both to the noun and the adjective, either as a prefix, as in (1a), in Classical Arabic and Biblical Hebrew, or a suffix as in (1b), in Classical Aramaic. Indefiniteness is marked in these languages by omission of the article.

- (1) a. prefixal article
[DEF-N DEF-Adj]
b. suffixal article
[N-DEF Adj-DEF]

An example is given for each of the three languages:

- (2) a. prefixal article
Classical Arabic
ʔal-ʔarḍ ʔal-muqaddas-a
DEF-land.F DEF-holy-F
'the holy land'

Biblical Hebrew¹*hā-ʔāreṣ haq-qədoš-ā*

DEF-land.F DEF-holy-F

‘the holy land’

b. suffixal article

Classical Aramaic*ʔarṣ-ā qaddiš-t-ā*

land.F-DEF holy-F-DEF

‘the holy land’

Below we investigate the diachronic question of the origin of multiple definite articles. This is a question posed for other languages as well, in addition to Semitic languages, which have multiple marking of definiteness, such as German, Yiddish, Norwegian, Swedish, Faroese, Greek, Albanian, Romanian, Bulgarian, and colloquial Slovenian. In French, there is double marking of definiteness in the expression of superlatives (e.g. the double occurrence of the article *la* in the superlative phrase *la terre la plus sainte* ‘the holiest land’).²

Researchers have proposed different accounts for the multiple marking of definiteness. These accounts can be roughly divided into two different types: those which view the multiple marking as representing multiple syntactic phrases (as shown in diagrams (3ai) and (3aii) below), and those which view it as multiple marking of a single phrase (as shown in diagram (3b)).

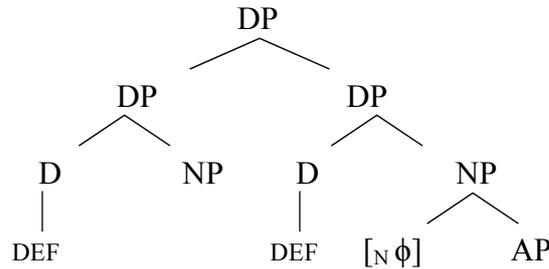
The accounts which view the multiple marking of definiteness as involving multiple nominal phrases come in two variants (3ai vs. 3aii). According to the first variant, notably Lekakou and Szenderői 2012, DEF realizes the syntactic functional head D (determiner). Hence, multiple marking of definiteness involves the multiple occurrence of the syntactic category D. Since D is considered the head of DP (the nominal phrase), the occurrence of multiple D’s reflects the occurrence of multiple DP’s. In other words, a multiple marked DP is actually a complex DP whose daughters are DP’s themselves. The semantic relation between the daughter DP’s is that of close apposition. Moreover, in one of the daughter DP’s, the adjective modifies a null noun. This variant of the multiple-phrase account is shown in (3ai).

¹ On the article in Modern Hebrew see Doron and Meir 2013, 2016.

² The marking of the adjective in the Germanic languages is actually a *weak-strong* marking, and might be unrelated to the definite article marking adjectives in the other languages on this list. Another difference within the list has to do with the obligatoriness vs. optionality of the multiple marking, e.g. the Hebrew *ha-mazon ha-bari ve *(ha-)ta'im* vs. the French *la plus saine et (la) plus délicieuse nourriture*. The languages also differ in which nominal components may be marked for definiteness. For example, in addition to marking nouns and adjectives, as in (i.a) below, Bulgarian marks numerals (i.b) and possessors (i.c) as well:

- (i) a. *xubavata sestra na domakinjata*
beautiful.F.DEF sister.DEF of hostess.DEF
‘the beautiful sister of the hostess’ (Mladenova 2007:30)
- b. *drugite dvete devojki*
other.PL.DEF two.F.DEF girls
‘the other two girls’ (Mladenova 2007:26)
- c. *Naš'te starite dojdoxa.*
our.PL.DEF old.PL.DEF came.3PL
‘Our parents came.’ (Mladenova 2007:45)

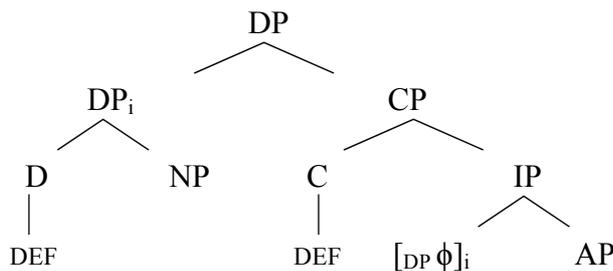
- (3) a. i. multiple-phrase account (DEF realizes a syntactic functional head)
two DPs in close apposition where DEF realizes D



(Lekakou and Szenderői 2012 for Greek)

According to the second variant of the multiple-phrase account, (e.g. Alexiadou and Wilder 1998), DEF realizes either of two syntactic functional heads: D (determiner) or C (complementizer). Hence, the complex DP is viewed as consisting of a DP modified by a relative clause CP. The semantic relation between the daughter DP and CP is that of relative-clause modification. This variant of the multiple-phrase account is shown in (3aii):

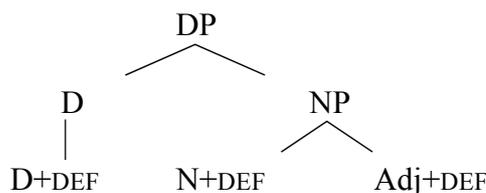
- (3) a. ii. multiple-phrase account (DEF realizes a syntactic functional head)
DP modified by a relative clause where DEF realizes the complementizer C



(Alexiadou and Wilder 1998, Alexiadou 2014 for Greek;
Khan 2008 for Neo-Aramaic)

The second type of account views the multiple marking of definiteness as multiple marking within a single phrase. According to these accounts, DEF is the exponent of definiteness inflection which inflects the various syntactic categories of the DP. In one variant of these accounts, the categories within DP include not only N and Adj but also D (e.g. Delsing 1993). DEF inflection spreads from N to Adj and D. This is shown in (3bi). A second subtype of these accounts only recognizes the categories N and Adj within the nominal phrase (3bii). Such an account is that of Pat-El 2009.

- (3) b. single-phrase account (DEF is an affix attached to syntactic heads)



- i. DEF spreads from N to D and Adj
(Delsing 1993 and most other analyses of Scandinavian)

ii. DEF spreads from Adj to N
(Pat-El 2009 for Semitic)

We follow a version of the single-phrase account (3b), but we would also like to explain how DEF developed into a marker of agreement, assuming the received view that DEF is originally a demonstrative pronoun, an independent phrasal element DP_{DEM} , which, in the course of historical development, was reanalyzed as a D head. We will show how this paved the way to the double attachment of DEF to both N and Adj. The fact that it marks agreement between N and Adj is due to the fact that all its occurrences express the features of a single phrase.

Our view of the single-phrase account for Semitic differs from Pat-El's 2009 account. Pat-El does not share the assumption that DEF in Semitic originates in a demonstrative pronoun. Her arguments against the identification of the definite article as a historical demonstrative include the following. (i) The normal order in Semitic is N-DEM, whereas the article is often placed before the head noun: DEF-N. (ii) The morphological exponent of the definite article in the historically attested Semitic languages, i.e. *ha-*, *han-* (or phonetic variants), does not correspond to any form of an attested independent demonstrative pronoun, rather only to an element that is a deictic prefix to such a pronoun, e.g. Arabic *ha-da* 'look.here-DEM' (= 'this'). (iii) The article exhibits no inflection for gender or number, whereas such inflection is present in paradigms of demonstrative pronouns. Pat-El argues, therefore, that the article began as a deictic/presentative prefix with the form *ha-* or *han-* (cognate to *hinne* in Hebrew), which was used adnominally to nominalize an adjective or mark it as attributive. The article on an attributive adjective then spread to the noun head, e.g.:

- (4) Reconstruction (Pat-El 2009:43)
- a. *han-tāb*
look.here-good 'the good one'
 - b. *kalb han-tāb* > *han-kalb han-tāb*
dog look.here-good 'look.here-dog look.here-good' ('the good dog')

Assuming that the article originates on adjectives rather than nouns allows Pat-El to account for the suffixal nature of DEF in Aramaic as a case of rebracketing:

- (5) N [han Adj] > [N han] Adj

One problem though is that under Pat-El's account, Semitic is different from general language typology in the origin of its definite article. Second, presentative particles are strictly deictic and lack the anaphoric function which is a crucial ingredient of definiteness. We therefore stick to the received view (Rubin 2005), that definiteness in Semitic originates as in other languages, as part of Greenberg's cycle. Greenberg describes the transition to the definite article in terms of the demonstrative pronouns becoming "bleached of deixis by anaphoric uses" (Greenberg 1978:79). The formal properties of the Central Semitic article that Pat-El adduces as arguments against its demonstrative origin, i.e., that it resembles prefixes of attested demonstrative pronouns and that it does not inflect, can be interpreted as the result of structural attrition as a result of grammaticalization. As for her argument relating to the normal syntactic ordering of the demonstrative relative to its head noun in Semitic, it should be pointed out that the ordering in fact exhibits considerable flexibility across the Semitic languages. Most relevantly, in Neo-Aramaic where, as we shall argue, the Greenberg definiteness cycle is taking place (and has been completed in one particular dialect), the demonstrative in question is placed before the head noun.

3. Deictic vs. anaphoric demonstrative pronouns in Neo-Aramaic

In Neo-Aramaic, demonstrative pronouns have a deictic or an anaphoric function.³ Many dialects have distinct forms of the demonstrative pronoun for each of these functions. We discuss two dialects, Barwar (Khan 2008) and Ṭuroyo (Waltisberg 2014).

A well known characteristic of deictic demonstratives, in Neo-Aramaic as in other languages, is that they encode the proximal/ distal contrast. Anaphoric demonstratives do not encode this contrast:

- (6) a. Deictic demonstratives
- | | |
|---------------------|----------------------|
| <u>Barwar</u> | |
| ' <i>awwa kθawa</i> | ' <i>awaha kθawa</i> |
| this book | that book |
| <u>Ṭuroyo</u> | |
| ' <i>u-kθow-ano</i> | ' <i>u-kθow-awo</i> |
| the-book-this | the-book-that |
- b. Anaphoric demonstratives
- | | |
|------------------|--|
| <u>Barwar</u> | |
| ' <i>o-kθawa</i> | |
| 'that/the book' | |
| <u>Ṭuroyo</u> | |
| ' <i>u-kθowo</i> | |
| 'the book' | |

The demonstratives which developed into the definite article are not the deictic but the anaphoric demonstratives. In Barwar, the anaphoric demonstrative '*aw* functions as an embryonic article, typically in clitic form ('*o-*). It is different from the deictic '*awwa*, which has developed historically from attaching the deictic particle (*h*)*a* to '*aw*. In Ṭuroyo, the anaphoric demonstrative **hu* has made the full shift to the status of definite article in its clitic form '*u-*. The independent form of **hu* became *hiye* by the addition of the 3MS suffix *-e* (*hu-e* > *hiye*). '*aw* and *hiye* are anaphoric demonstratives, they function as personal pronouns in particular environments. In most environments, personal pronouns are null in Neo-Aramaic. Continuing topics are generally tracked by null anaphors. Anaphoric demonstratives are predominantly used to track topics that are discontinuative or contrastive (Diessel 1999).

4. Barwar vs. Ṭuroyo: different stages of the demonstrative cycle

In Barwar, the article '*o-* has not yet shifted to the status of definite determiner; that is, Barwar has not yet fully shifted to stage II in Greenberg's cycle. The article is only used to mark *pragmatic* but not *semantic* definiteness (in the terminology of Löbner 1985): the article marks individuals as being unique in the context, e.g. *house* in a context which happens to include a unique house, but does not mark individuals which are unique independently of the the context, i.e. by virtue of their meaning, such as *king*, *sun*, *nose*, *evening*, etc. In Ṭuroyo, '*u-* has already grammaticalized into a determiner:

³ We use the term *anaphoric* to include reference to entities which have been made prominent in the particular discourse in any way, not necessarily by previous mention. Strictly speaking the term is *endophoric*.

- (7) a. Barwar
xoni bnele beθa
 brother.my built house
'o-beθa qurba l-beθa-t malka
the-house near to-house-of king
 'My brother built a house. The house is near the house of the king.'
- b. Turoyo
aḥuni ma 'marle bayto
 brother.my built house
'u-bayto qariwo-yo l-u-bayto d-u-malko
the-house near-COP to-the-house of-the-king
 'My brother built a house. The house is near the house of the king.'

In Barwar, names of kinds do not take the article, which further indicates that the article is still a demonstrative phrase rather than a determiner (Krámsky 1972: 34), but in Turoyo they obligatorily do:

- (8) a. Barwar
 (*'o-) 'arya
 b. Turoyo
 *('u-) 'aryo
 both: 'the lion' (as a kind-name)

We conclude that 'o- in Barwar (and its fem. and pl. counterparts, 'a- and 'an- respectively) is still a phrasal constituent, a demonstrative DP_{DEM}, whereas 'u- in Turoyo (and its fem. and pl. counterparts 'i- and 'a(nn)- respectively) is reinterpreted as D, which moreover is realized as an affix to N. Accordingly, in Barwar, the definite article may be attached to the left of a conjoined noun-phrase, whereas in Turoyo it must be attached to each noun separately:

- (9) a. Barwar
xzayəl-la 'a-yaləxta -w 'isaqθa
 seeing.3MS-OBJ.3PL the.FS-scarf and ring
 'He sees the scarf and ring' (Khan 2008 III A26:9)
- b. Turoyo
hule-la 'i-dasmale 'u 'i-'isqaθo
 gave.3MS-DAT.3FS the.FS-scarf and the.FS-ring
 'He gave her the scarf and the ring.'

In Barwar, 'o- and 'awwa do not co-occur in a single noun phrase, since both are demonstrative phrases. But in Turoyo, the D 'u- cooccurs with the demonstrative DP_{DEM} 'awo:

- (10) a. Barwar
 * 'awaha 'o kθawa
 'that book'
- b. Turoyo
 'u-flaym-awo
 the-boy-that
 'that boy'

Conversely, in Turoyo the D 'u- cannot be modified by a reduced relative clause (introduced by the complementizer -d), whereas the Barwar demonstrative DP_{DEM} 'o- may occur as the head of reduced relative clauses introduced by the complementizer -t:

- (11) a. Barwar
 'o- -t gu-bεθa
 the C in-house
 'the one in the house'
 b. Turoyo
 *'u- -d b-u-bayto
 the C in-the-house

5. Contrastive vs. non-contrastive attributive adjectives

Neo-Aramaic can overtly express contrastive attribution by marking the adjective with the definite article. In Barwar, definiteness marking of the adjective precludes marking of the head-noun, since the article is a demonstrative DP_{DEM} which can only be attached once per noun phrase:

- (12) Barwar
 a. xone diye faqira wewa
 brother of.3MS poor PAST
 šattā-t maθa wewa tiwa 'o-xona faqira
 bottom-of village PAST lived **the-brother poor**
 'His brother was poor... The poor brother lived at the bottom of the village.'
 (Khan 2008 vol 3, A25:1)
 b. 'aw dmixεle xona 'o-gora modi mære
 he slept **brother the-big** what said
 'While he (the youngest brother) slept, what did the eldest brother say?'
 [contrastive]
 (Khan 2008 vol 3, A24:25)

But in Turoyo, the article obligatorily marks the noun in definite phrases, whether or not the adjective is marked as contrastive:

- (13) Turoyo
 a. g-'oyašno b-u-bayto na'im-ano / b-u-bayt-ano na'imo
 FUT-live.1S in-**the-house small-this** in-**the-house-this small**
 'I shall live in this small house.'
 b. 'ono g-'oyašno b-u-bayt-ano 'u-na'imo
 I FUT-live.1S in-**the-house-this the-small**
 hat 'uš b-u-bayt-awo 'u-rabo
 you live.IMP.2S in-**the-house-that the-big**
 'I shall live in this small house. You live in that big house.' [contrastive]

Crucially, contrastive marking of the adjective in Turoyo is only possible in the environment of a demonstrative phrase, as in (13b) above. When the demonstrative phrase is not present, the adjective is not marked by the definite article, cf. (14a), and contrastive marking of the adjective is ungrammatical. In (14b), the modifier *the eldest* can only be interpreted as loose apposition, i.e. *the eldest one*, which is incompatible with contrast:

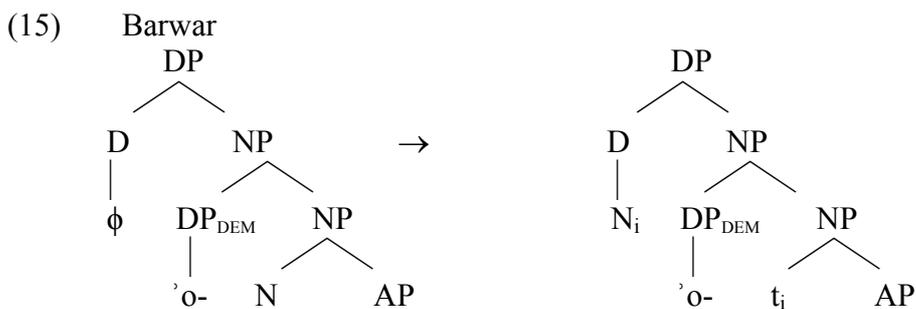
(14) Ṭuroyo

- a. *inaqa d- u-aḥuno na 'imo daməx 'u-aḥuno rabo mən malle*
 while that the-brother young slept **the-brother big** what said
 'While the youngest brother slept, what did the eldest brother say?'
- b. **inaqa d- u-aḥuno na 'imo daməx 'u-aḥuno 'u-rabo mən malle*
 while that the-brother young slept **the-brother the-big** what said
 * 'While the youngest brother slept, what did the brother, the eldest one, say?'

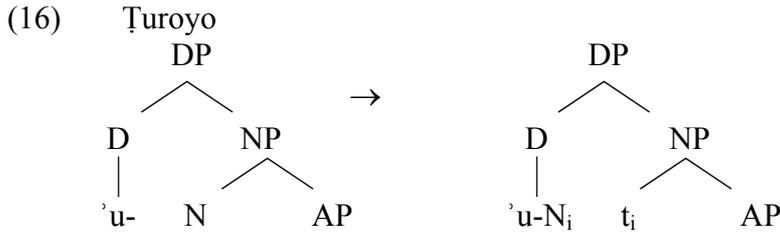
6. The evolution of multiple definiteness marking

In the previous sections we uncovered two crucial factors of the development of multiple definiteness marking in the Neo-Aramaic noun phrase. One factor is the syntactic status of the definite article. Is it a phrasal constituent DP_{DEM} or a lexical head D? In section 4, we showed that the transition from demonstrative pronoun, as in Barwar, to definite determiner, as in Ṭuroyo, corresponds to reanalysis of the phrase DP_{DEM} as the lexical head D. This corresponds to the parallel reanalysis suggested for the Latin demonstrative *ille* by Giusti 2001 and Roberts and Roussou 2003: 131-136. The second factor, discussed in section 5, is the use of the definite article in Neo-Aramaic to mark contrastivity of the attributive adjective. We derive this marking from the reordering of the noun N, or some (extended) projection of N, relative to the determiner D within the noun-phrase. Underlyingly, the noun N intervenes between the determiner D and the adjective Adj. If the noun is raised out of its underlying position, the stranded Adj remains adjacent to D, with no intervening material, resulting in the definite article attaching to Adj. Semantically, the raising of N achieves de-focalization of the noun, and hence contrastive interpretation of the stranded adjective.

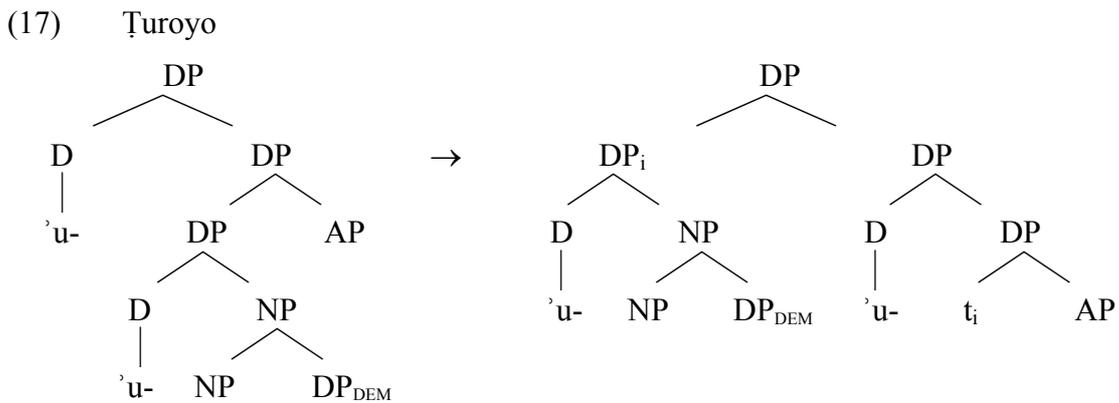
The interaction of these two factors is at the basis of the development of multiple definiteness marking within the noun-phrase in Neo-Aramaic. The simpler case is Barwar, where the article is still a demonstrative DP_{DEM} , and the determiner D is null. If N raises to the null D, semantically marking the attributive AP as contrastive, it allows the attachment of the article 'o- to the AP:



In Ṭuroyo, the article is a D head. Raising of N in simple noun phrases without demonstrative phrases, such as in (14) above, does not alter the relative order of N and the article, and thus does not result in contrastive marking:



In noun phrases containing a demonstrative DP_{DEM} , such as example (13) above, what makes AP contrastive is the de-focalization of an extended projection of the noun N, i.e. the constituent $[_{DP} D [_{NP} NP DP_{DEM}]]$. Raising this constituent allows the phonological attachment of D to AP:



7. Conclusion

We have shown how the Neo-Aramaic dialects progress along the transition from the first to the second stage of Greenberg’s cycle, where demonstrative pronouns turn into definite articles. In the less progressive dialect, the article is still an anaphoric demonstrative pronoun which has not yet turned into a determiner. Depending on whether the attributive adjective is contrastive or not, the article attaches either to the adjective or the noun, never to both. In the more progressive dialect, the anaphoric demonstrative pronoun has already turned into a determiner, and it may attach to both noun and adjective within the same noun phrase. Assuming that the ancient Central Semitic development might have followed the same path that we uncovered in Neo-Aramaic, our analysis suggests how the double marking of definiteness might have come about.

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