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Definiteness, genitives and two types of syntax in Standard Arabic

JAMES DICKINS

University of Leeds

Abstract

This article deals with Standard Arabic – i.e. the variety of Arabic including Classical and Modern Standard Arabic, regarded as a single synchronic entity (ignoring historical developments, which are, for current purposes, irrelevant). It considers the relationship between the *-n* of nunation (*tanwīn*) and the definite article *al-* (plus allomorphic variants). Henceforth, I shall for brevity refer to the *-n* of nunation (*tanwīn*) as *-n* and the definite article *al-* as *al-*. I consider first the relationship between *al-* and *-n* in relation to (i) standard triptote nouns, (ii) diptote nouns, (iii) non-declinable nouns, and (iv) dual and sound plural nouns, concluding that *-n* is neither simply an indefinite marker, as sometimes claimed (e.g. HOLES 1995: 41; BADAWI, CARTER and GULLY 2004: 96), nor an absolute state marker, as also claimed (e.g. LYONS 1999; RETSÖ 1984–1986; 2010), but has something of both functions. I go on to consider *al-* and *-n* in relation to (i) pronoun suffixes, and (ii) genitive annexes. I use the following terminology: *annexion-head* meaning roughly the same as *muḍāf* (cf. BADAWI, CARTER and GULLY 2004: 131) in traditional Arabic terminology (also termable *annexed term*, e.g. WATSON 1993: 173, or *genitive head* in English), and *annex* (WATSON 1993: 173) meaning roughly the same *as muḍāf ilay-hi* (cf. BADAWI, CARTER and GULLY 2004: 131) (also termable *genitive modifier* in English). I argue that *-n, al-,* pronoun suffixes and genitive annexes commute with one another (incorporating also recursive elements), to give one form of syntax. In the linguistic model underpinning this paper – extended axiomatic functionalism (DICKINS 1998, 2009) – this can be termed lexotactic. I also show, however, that these structures can be subject to a second, different, form of syntactic analysis, in extended axiomatic-functionalism termed delotactic.

1. The relationship between *-al* and *-n*

I consider the relationship between *-al* and *-n* in the case of triptote nouns (Section 1.1), diptote nouns (Section 1.2), and dual and sound plural nouns (Section 1.3) – representing all the major classes of nouns with respect to the operation of *-n*.

1.1 The relationship between *-al* and *-n*: triptote nouns

Consider the following:

al-bait-u	'the house'
bait-u-*n*	'a house'

I will take it that both *al-* and *-n* are morphemes.[1] (I also take it that the nominative *-u* is a morpheme, but as case-endings are irrelevant this paper, I will ignore these.) It is clear that *al-* and *-n* substitute for one another: one can have either *al-* before *bait-u* or *-n* after it, but not both *al-* and *-n*. More technically, *al-* and *-n* can be said to commute with one another. The notion of commutation is chiefly associated with phonology, where it refers to "a process of sound substitution to show contrastivity. It is especially encountered in the phrase 'commutation test', which is a systematic use of the substitutability technique of minimal pairs for establishing phonemes" (CRYSTAL 2008: 90). Consider the following from English:

Table 1

pin
bin
tin
sin

Here /p/ in 'pin', /b/ in 'bin', /t/ in 'tin', and /s/ in 'sin' commute. Specific comparison between /p/, /b/, /t/ and /s/ in an otherwise identical context (with following 'in' in all cases) is a commutation test, and minimal pairs are 'p' in relation to 'b', 'p' in relation to 't', 'p' in relation to 's', 'b' in relation to 't' – and so on for all combinations of two initial elements. The fact that all the different forms /pin/, /bin/, /sin/ and /tin/ represent (realise) different words demonstrates that /p/, /b/, /s/ and /t/ are different phonemes. Commutation can also be applied to grammar (morphology and syntax). Thus, in the case of <u>*al*</u>-bait-u 'the house' and bait-u-<u>*n*</u> 'a house', we can represent the commutational relationship as in Table 2.

Table 2

bait-u	*al-*
bait-u	*-n*

Here, *al-* and *-n* commute with one another. There is one obvious difference between commutation in phonology and that in grammar. In the case of phonology, commutation can only be established where the realisational sequencing is the same. We can plausibly say that 'p' and 'b' commute with one another in 'pin' and 'bin' but not that 'p' and 'b' commute with one another in 'pin' and 'nib'. This is because phonology relates directly to phonetics, i.e. is realised directly by phonetic forms. There has to be a fairly direct relationship between phonological form and phonetic form for the claimed phonological form to be plausible. In the case of grammar, by contrast, the relationship between abstract analytical structures and concrete phenomena is not so direct, grammar being more abstract than phonology. A language may have both prepositions and postpositions: the grammatical (syntactic) relationship between a noun and a preposition in such a language is, however, likely to be best analysed as the same as that between a noun and a postposition. Analogously, in the case of *al-bait-u* 'the house' and *bait-u-n* 'a house',

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1 While it may seem obvious that both *al-* and *-n* are morphemes, making the case for this under the current approach is not as simple as might appear. (For discussion of some of the issues, see DICKINS 2011). For the sake of brevity and simplicity of presentation – rather than to avoid the problem – I will therefore simply accept that both *al-* and *-n* are morphemes.

although *al-* precedes the noun and *-n* follows it, we can legitimately analyse them as commuting with one another. Given that *al-bait-u* means 'the house' and *bait-u-n* means 'a house', and that *al-* is traditionally (and reasonably) accepted to mean 'the' (i.e. to denote definiteness) it initially seems reasonable to say that *-n* means 'a' (i.e. denotes indefiniteness). (This analysis will be revised in Section 3.1.)

1.2 The relationship between *al-* and *-n*: diptote nouns

As well as triptotes, Arabic has a second major class of declinable nouns, diptotes. Here, what is significant about these is that they never take *-n*. (As we are not interested in case endings in this paper, we can ignore the fact that diptotes have somewhat different case endings from triptotes.) Consider the following:

al-ṣaḥrā'-u	'the desert'
ṣaḥrā'-u	'a desert'

To analyse this pair, we need to introduce the notion of commutation with zero. Consider the following in phonology.

Table 3

pin
in

Just as 'p' may commute with 'b' (as in 'pin' vs. 'bin') so it may commute with nothing (as in 'pin' vs. 'in'): what is more technically known as commutation with zero. This could be represented as in Table 4 (where Ø stands for 'zero'):

Table 4

pin
Øin

Al-ṣaḥrā'-u 'the desert' vs *ṣaḥrā'-u* 'a desert' can analogously be analysed as a case of commutation with zero, as in Table 5:

Table 5

ṣaḥrā'-u	*al-*	'the desert'
ṣaḥrā'-u	Ø	'a desert'

In the case of *al-ṣaḥrā'-u* 'the desert' vs *ṣaḥrā'-u* 'a desert', definiteness is clearly marked by *al-* (as it is in *al-bait-u*), but indefiniteness is marked by Ø (zero – i.e. nothing at all).

1.3 The relationship between *-al* and *-n*: masculine sound plural and dual nouns

Consider the following:

mudarris-ā-*n*	'two teachers'
*al-*mudarris-ā-*n*	'the two teachers'
mudarris-ū-*n*	'[more than two] teachers'
*al-*mudarris-ū-*n*	'the [more than two] teachers'

I will assume here (and argue in Section 2.3) that the *-n* at the end of *mudarris-ā-n* 'two teachers' and *mudarris-ū-n* '[more than two] teachers' is the same *-n* morpheme which occurs at the end of *bait-u-n*. In the case of *mudarris-ā-n* 'two teachers' vs. *al-mudarris-ā-n* 'the two teachers' and *mudarris-ū-n* '[more than two] teachers' vs. *al-mudarris-ū-n* 'the [more than two] teachers', however, there is clearly not commutation between *al-* and *-n*: the two co-occur in both *al-mudarris-*

ā-n and *al-mudarris-ū-n*. Here, there seems to be no case for describing *-n* as a marker of indefiniteness, given its co-occurrence with *al-*. Dual and sound plural forms constitute something of a problem for the commutational analysis which I have put forward in earlier sections. The solution which I shall adopt is to consider both *al-* and *-n* in the case of dual and masculine sound plural nouns to occupy the same grammatical 'slot'.[2] Thus, *mudarris-ā-n* 'two teachers', and *al-mudarris-ā-n* 'the two teachers' could be analysed as in Table 6.

Table 6

mudarris-ā	*-n*	'two teachers'
mudarris-ā	*al-* + *-n*	'the two teachers'

2. The relationship between *al-*, *-n* and pronoun suffixes

In the following sections, I will extend the analyses considered in sections 1.1-1.3 to include pronoun suffixes, i.e. in relation to triptote nouns (Section 2.1), diptote nouns (Section 2.2), and dual and masculine sound plural nouns (Section 2.3).

2.1 The relationship between *al-*, *-n* and pronoun suffixes: triptote nouns

Consider the following: *al-bait-u* 'the house', *bait-u-n* 'a house', *bait-u-hu* 'his house'. This yields the following commutational analysis:

Table 7

bait-u	*al-*
bait-u	*-n*
bait-u	*-hu*

Forms with pronoun suffixes in Standard Arabic are always definite, as indicated by the fact that dependent adjectives take definite agreement (thus *bait-u-hu al-kabīr* 'his big house'). This is consistent with the analysis of *-n* as denoting indefinite in the case of *bait-u-n* 'a house' initially put forward in Section 1.2.

2.2 The relationship between *al-*, *-n* and pronoun suffixes: diptote nouns

Consider the following: *al-ṣaḥrā'-u* 'the desert', *ṣaḥrā'-u* 'a desert', *ṣaḥrā'-u-hu* 'his desert'. This yields the following commutational analysis:

Table 8

ṣaḥrā'-u	*al-*
ṣaḥrā'-u	*Ø*
ṣaḥrā'-u	*-hu*

This is consistent with the analysis of zero as denoting indefinite in the case of *ṣaḥrā'-u* 'a desert'. (This analysis will be refined in sections 3.2, and 3.3.)

2.3 The relationship between *al-*, *-n* and pronoun suffixes: dual and masculine sound plural nouns

Consider the following:

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2   I have not pursued in detail the view that both *al-* and *-n* in the case of dual and masculine sound plural nouns occupy the same grammatical 'slot'. This would appear, however, to be a case of what is known in extended axiomatic functionalism as a lexotheme (cf. DICKINS 2009, Def. 0a, Def. 9b0c). For a detailed discussion of the corresponding notion in phonology, the phonotheme (cf. DICKINS 2009, Def. 0b, Def. 9a0c), see HESELWOOD 2008).

mudarris-ā-*n*   'two teachers'
al-mudarris-ā-*n*   'the two teachers'
mudarrisā-*hu*   'his two teachers'

mudarris-ū-*n*   '[more than two] teachers'
al-mudarris-ū-*n*   'the [more than two] teachers'
mudarris-ū-*hu*   'his [more than two] teachers'

This yields a commutational analysis (building on Table 6) as in tables 9 and 10:

Table 9

mudarris-ā	*-n*	'two teachers'
mudarris-ā	*al-* + *-n*	'the two teachers'
mudarris-ā	*-hu*	'his two teachers'

Table 10

mudarris-ū	*-n*	'[more than two] teachers'
mudarris-ū	*al-* + *-n*	'the [more than two] teachers'
mudarris-ū	*-hu*	'his [more than two] teachers'

It is striking that the *-n* which occurs at the end of *mudarris-ā-n* 'two teachers' and *mudarris-ū-n* '[more than two] teachers' is not found with pronoun suffixes, e.g. in *mudarris-ā-hu* 'his two teachers' or *mudarris-ū-hu* 'his [more than two] teachers'. Nor, as can be seen in Section 3.3 (below), does this *-n* occur before nominal genitive annexes. In these two respects, the *-n* at the end of *mudarris-ā-n* 'two teachers' and *mudarris-ū-n* '[more than two] teachers' patterns like the *-n* at the end of *bait-u-n* 'a house'. The only difference between *mudarris-ā / mudarris-ū* and *bait-u* is that the *-n* appears on the end of *al-mudarris-ā-n / al-mudarris-ū-n* but not on the end of *al-bait-u*. The significant similarity between the patterning of *mudarris-ā / mudarris-ū* and *bait-u* with respect to final *-n* will here be taken to demonstrate that this final *-n* is the same morpheme in all cases. As noted in Section 1.3, dual and sound masculine nouns are not compatible with an analysis in which *-n* denotes indefiniteness (such an analysis being ruled out by forms such as *al-mudarris-ā-n* 'the two teachers' and *al-mudarris-ū-n* 'the [more than two] teachers'). We can, however, understand *mudarris-ā-hu* to mean something like 'the two teachers *of* her', and *mudarris-ū-hu* to mean something like 'the [more than two] teachers *of* her', i.e. we can interpret the pronoun suffix attached to a noun to stand in a genitive relationship to that noun (for support for this view, see Section 3.3). If we do this, we can analyse the *-n* in the case of *mudarris-ā-n* 'two teachers', *al-mudarris-ā-n* 'the two teachers', *mudarris-ū-n* '[more than two] teachers', and *al-mudarris-ū-n* 'the [more than two] teachers', as marking ('denoting') the fact that the noun in question does not function as the head of a genitive phrase – or what I will call in this article a *genitive head* (while the non-occurrence of this *-n* in *mudarris-ā-hu* 'his two teachers' and *mudarris-ū-hu* 'his [more than two] teachers' marks, or denotes, the fact that *mudarris-ā* and *mudarris-ū* do in these cases function as genitive heads). In traditional Western Semitic linguistic terms, *-n* in the case of *(al-)mudarris-ā-n* '(the) two teachers' and *(al-)mudarris-ū-n* '(the) [more than two] teachers' marks the absolute state (cf. Lɪᴘɪ́ɴsᴋɪ 1997: 265–278; esp. 273).

3. The relationship between *al-*, *-n*, pronoun suffixes, and genitive annexes

I will extend previous analyses to include genitive annexes – triptotes (Section 3.1), diptotes (Section 3.2), and dual and masculine sound plurals (Section 3.3).

3.1 The relationship between *al-*, *-n*, pronoun suffixes and genitive annexes: triptotes
Consider the following: *al-bait-u* 'the house', *bait-u-n* 'a house', *bait-u-hu* 'his house', *bait-u l-jār-i* 'the house of the neighbour'. This can be analysed in commutational terms as in Table 11.

Table 11

bait-u	al-	'the house'
bait-u	-n	'a house'
bait-u	-hu	'his house'
bait-u	l-jār-i	'the house of the neighbour'

Table 11 presents a valid set of commutations. There are, however, a number of significant complications in the case of the analysis of *bait-u l-jār-i* 'the house of the neighbour'. Most importantly, *bait-u l-jār-i* 'the house of the neighbour' involves recursion. Just as the definite article *al-* at the start of *bait-u* in *al-bait-u* 'the house' commutes with the *-n* at the end of *bait-u-n* 'a house', the pronoun suffix *-hu* in *bait-u-hu* 'his house', and the annex (genitive) noun *jār-i-n* in *bait-u jār-i-n* 'a house of a neighbour', so the *al-* at the end of *jār-i-n* 'a neighbour' commutes with *-n*, pronoun suffixes, and annex nouns: thus *[bait-u] jār-i-n* 'a house of a neighbour', *[bait-u] jār-i-hi* (pronoun suffix) 'the house of his neighbour', *[bait-u] jār-i ṣ-ṣadīq-i* (annex noun) 'the house of the neighbour of the friend' (and so on in relation to *aṣ-ṣadīq-i* 'the friend', etc.). This situation can be diagrammed as in Table 12.

Table 12

bait-u	al-			'the house'
bait-u	-n			'a house'
bait-u	-hu			'his house'
bait-u	jār-i	al-		'the house of the neighbour'
bait-u	jār-i	-n		'a house of a neighbour'
bait-u	jār-i	-hi		'the house of his neighbour'
bait-u	jār-i	ṣadīq-i	al-	'the house of the neighbour of the friend'
			etc.	

Bracketing represents the recursion more precisely, as in Table 13, where (and) are used to represent the basic relationship, [and] the first recursive (embedded) element, and { and } the second recursive (embedded) element.

Table 13

bait-u	(al-		)	'the house'
bait-u	(-n		)	'a house'
bait-u	(-hu		)	'his house'
bait-u	(jār-i	[al-	])	'the house of the neighbour'
bait-u	(jār-i	[-n	])	'a house of a neighbour'
bait-u	(jār-i	[-hi	])	'the house of his neighbour'
bait-u	(jār-i	[ṣadīq-i	{al-}])	'the house of the neighbour of the friend'
		etc.		

The second issue raised by this analysis is whether the relationship between *bait-u* and the other elements which can co-occur with it (*al-* (definite article), *-n*, pronoun suffix, annex (genitive) noun, etc.) is morphological or syntactic. A distinction needs to be drawn between phonological dependence ('pseudo-morphology'), and true morphology (morphology proper). Consider English genitive-*s*. Phonologically, this is non-independent (dependent) on what comes before it; i.e. it never occurs as a phonologically independent feature. Thus in 'the man's book', genitive-*s* is an integral (non-independent) part of the syllable /manz/. However, consideration of a phrase such as 'the man with the cat's book' (i.e. the book of the man with the cat) shows that this phonological dependence does not indicate that the relationship between genitive-*s* and what occurs before it is morphological. Rather it is syntactic. This conclusion is reached on two bases: (i) that 'the man with the cat' is a syntactic phrase (as this is obvious, I will not argue for this here); (ii) an element which forms a structure with a syntactic phrase necessarily enters into a syntactic (rather than a morphological) structure with that phrase. Thus, in 'the man with the cat's book', the relationship between genitive-*s* and the syntactic structure 'the man with the cat' is necessarily syntactic, and not morphological. Given moreover, that 'the man with the cat' and 'the man' commute with one another (in 'the man with the cat's book' and 'the man's book') and given the principle of consistency of analysis (i.e. the same analysis for all valid commutations), we can also deduce that in 'the man's book', the relationship between 'the man' and genitive-*s* is also syntactic (rather than morphological).

In the case of a complex noun-phrase such as *bait-u jār-i ṣ-ṣadīq-i* 'the house of the neighbour of the friend', it seems clear that the annex element (involving recursion/embedding) *jār-i ṣ-ṣadīq-i* 'the neighbour of the friend' is syntactic (I won't try to prove this here – demonstrating it would be far more complex than might initially appear). If the annex element *jār-i ṣ-ṣadīq-i* 'the neighbour of the friend' is syntactic, the relationship between this and the annexion-head *bait-u* must also be analysed as syntactic (rather than morphological). This description can – and must – be further extended on the basis of consistency of analysis. Thus, given that *al-* in *al-bait-u* 'the house' is a valid commutant with *jār-i ṣ-ṣadīq-i* in *bait-u jār-i ṣ-ṣadīq-i* 'the house of the neighbour of the friend', we must conclude that the relationship between *al-* and *bait-u* in *al-bait-u* 'the house' is syntactic rather than morphological (phonological issues being irrelevant here, as they are in the case of 'the man's book' / 'the man with the cat's book'). In fact, there are numerous cases in Standard Arabic where *al-* functions in a clearly syntactic manner, e.g:

al-rajul-u   *l-majhūl-u*   *ism-u-hu*
the-man-NOM.   the-unknown-NOM.   name-NOM.-his
the man whose name is unknown

Here the *al-* before *majhūl-u* does not relate to *majhūl-u* alone but to the entire phrase (clause) *majhūl-u ism-u-hu* 'his name is unknown' ('unknown his name'), causing this clause to be definite, and thus to agree with the definite *ar-rajul-u*. Given that the clause *majhūl-u ism-u-hu* 'his name is unknown' is syntactic (I take this not to require argumentation), the relationship between *al-* and *majhūl-u ism-u-hu* is also syntactic (rather than morphological).

The situation with pronoun suffixes and *-n* is intuitively rather more problemat-

ic. In English, that possessive pronouns stand in a syntactic, rather than morphological, relationship with their following nouns is demonstrated by the possibility of 'their houses and gardens', in which 'their' relates to the entire phrase 'houses and gardens', i.e. *their houses and their gardens* (as well the alternative structure, in which it relates only to 'houses', giving the sense *their houses and [some] gardens*). In Standard Arabic, forms such as **buyūt-u wa-janāyin-u-hum* 'their houses and gardens' are not possible. One has to say *buyūt-u-hum wa-janāyin-u-hum* 'their houses and their gardens'. But the principle of consistency of analysis also applies. Once it has been determined that *al-*, *-n*, pronoun suffixes, and annex nouns are all valid commutants, and that at least one of this set (in this case, annex nouns most clearly) are in a syntactic (rather than morphological) relationship to the head noun, it follows that all other members of the set are also in a syntactic relationship. Thus, we conclude that phonological issues notwithstanding both pronoun suffixes and *-n* stand in a syntactic relationship to the preceding head noun.

A third issue is the nature of *-n* (again): indefinite marker, or absolute state marker? In the case of *al-bait-u* 'the house' vs. *bait-u-n* 'a house', as has been seen (Section 2.1), *-n* could be regarded as an indefinite marker. Consider, however, *bait-u jār-i-n* 'a house of a neighbour'. The view that lack of *-n* (on *bait-u* in this example) indicates definiteness – and that *-n* correspondingly simply indicates indefiniteness – is ruled out by the fact in forms like *bait-u jār-i-n* 'a house of a neighbour', both nouns are indefinite (the frequently plausible English translation 'the house of a neighbour' notwithstanding).[3] The example *bait-u jār-i-n* 'a house of a neighbour' is compatible with an analysis of *-n* as indicating absoluteness, but not simple indefiniteness. The same is true of *bait-u l-jār-i* 'the house of the neighbour' and *bait-u jār-i-hi* 'the house of his neighbour'. Here, the lack of *-n* (on *bait-u*) cannot indicate indefiniteness, since *bait-u* 'the house' in both these examples is, in fact, definite (as is *jār-i-*; see also Section 5).[4] It has been seen that in the contrast *al-bait-u* 'the house' vs. *bait-u-n* (Section 1.1) *-n* can be analysed as indicating indefiniteness, but that before a pronoun suffix or following a noun/noun-phrase annex (e.g. in *bait-u l-jār-i* 'the house of the neighbour') lack of *-n* indicates not indefiniteness, but the non-absoluteness of the initial noun (that it is an annexion-head). Taking these two facts together, we can say that *-n* at the end of *bait-u-n* indicates both indefiniteness and absoluteness.

The final complication to be identified here is that of definiteness and indefiniteness. Nouns in Arabic are definite or indefinite (there is no other alternative).

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3   That in *bait-u jār-i-n* 'a house of a neighbour' both nouns are indefinite is demonstrated by agreement patterns: *bait-u jār-i-n ḥajariyy-u-n* 'a stone house of a neighbour', and *bait-u jār-i-n ᶜajūz-i-n* 'a house of an aged neighbour' (also *bait-u jār-i-n ᶜajūz-i-n ḥajariyy-u-n* 'a stone house of an aged neighbour').

4   The fact that in *bait-u l-jār-i* 'the house of the neighbour' and *bait-u jār-i-hi* 'the house of his neighbour' both nouns are definite is demonstrated by agreement patterns: *bait-u l-jār-i l-ḥajariyy-u* 'the stone house of the neighbour', *bait-u jār-i-hi l-ḥajariyy-u* 'the stone house of his neighbour', *bait-u l-jār-i l-ᶜajūz-i* 'the house of the aged neighbour' and *bait-u jār-i-hi l-ᶜajūz-i* 'the house of his aged neighbour' (also *bait-u l-jār-i l-ᶜajūz-i l-ḥajariyy-u* 'the stone house of the aged neighbour', *bait-u jār-i-hi l-ᶜajūz-i l-ḥajariyy-u* 'the stone house of his aged neighbour').

As seen from the preceding examples, in annexion phrases (genitive phrases) involving more than one noun, all nouns are either indefinite or definite. Thus in *bait-u jār-i ṣadīq-i-n* 'a house of a neighbour of a friend' each of *bait-u* 'house', *jār-i* 'neighbour and *ṣadīq-i-n* 'friend' are indefinite (the plausibility of an English translation 'the house of the neighbour of a friend' notwithstanding). By contrast in *bait-u jār-i ṣadīq-i-hi* 'the house of the neighbour of his friend' each of *bait-u* 'house', *jār-i* 'neighbour and *ṣadīq-i-hi* 'his friend' are definite. This has structural implications of a rather different kind from the ones so far considered (Section 5).

3.2 The relationship between *al-*, *-n*, pronoun suffixes, and genitive annexes:
diptotes
Consider the following:

aṣ-ṣaḥrā'-u	'the desert'
ṣaḥrā'-u	'a desert'
ṣaḥrā'-u-hu	'his desert'
ṣaḥrā'-u l-jār-i	'the desert of the neighbour'
ṣaḥrā'-u jār-i-n	'a desert of a neighbour'
ṣaḥrā'-u jār-i-hi	'the desert of his neighbour'
ṣaḥrā'-u jār-i ṣ-ṣadīq-i	'the desert of the neighbour of the friend'
ṣaḥrā'-u jār-i ṣadīq-i-n	'a desert of a neighbour of a friend'

This is not consistent with the analysis of zero as simply denoting indefinite in the case of *ṣaḥrā'-u* 'a desert'. In support of this conclusion, recall first that what is meant by 'zero' is absolutely nothing. Thus, while *ṣaḥrā'-u* 'a desert' can be described as *ṣaḥrā'-u* plus Ø, *aṣ-ṣaḥrā'-u* 'the desert' is *ṣaḥrā'-u* plus *al-*, *ṣaḥrā'-u-hu* 'his desert' is *ṣaḥrā'-u* plus *-hu*, *ṣaḥrā'-u l-jār-i* 'the desert of the neighbour' is *ṣaḥrā'-u* plus *al-jār-i*, etc. Accordngly, if indefinite were denoted by zero (Ø), we would have zero in the case of all indefinites. In fact, however, one can have indefinites with other than zero – *ṣaḥrā'-u jār-i-n* 'a desert of a neighbour', analysed as *ṣaḥrā'-u* plus *jār-i-n* (not *ṣaḥrā'-u* plus Ø). Zero (Ø) does not thus denote indefiniteness. Rather, it occurs in one context only, i.e. *ṣaḥrā'-u* 'a desert', in which the noun is not only indefinite, but also absolute (i.e. it is not following by a pronoun suffix or a noun/noun-phrase annex). Zero (Ø) here is thus both indefinite and absolute.

3.3 The relationship between *al-*, *-n*, pronoun suffixes, and genitive annexes: duals
and masculine sound plurals
Consider the following examples with masculine sound plurals (for the sake of brevity I will not discuss duals here; the same principles, however, apply):

mudarris-ū-n	'teachers'
al-mudarris-ū-n	'the teachers'
mudarris-ū-hu	'his teachers'
mudarris-ū l-maᶜhad-i	'the teachers of the institute'
mudarris-ū maᶜhad-i-n	'teachers (INDEF.) of an institute'

This is consistent with *-n* denoting ('marking') absoluteness. That is to say, *-n* does not occur where there is a following pronoun suffix or noun/noun-phrase annex. But, it is not consistent with *-n* denoting indefiniteness – as shown by the fact that

-n co-occurs with the definite article *al-*. We should also note that in all cases, whether following a triptote like *bait-u* 'house', dual like *mudarris-ā* 'two teachers' or sound masculine plural like *mudarris-ū* '[more than two] teachers', pronoun suffixes pattern exactly like noun-phrase annexes: in all cases there is no final *-n* on the preceding word. This commonality of patterning strengthens the case, first put forward in Section 3.2, for treating pronoun suffixes as a particular type of genitive annex (thus *bait-u-hu* can be 'read' as 'the house of him', *mudarris-ā* 'the two teachers of him', and *mudarris-ū-hu* as 'the [more than two] teachers of him').

4. The functions of *-n* and Ø: a summary

In this section I will sum up the discussion in sections 2-4 on the functions of *-n* (as this occurs with non-diptotes: triptotes, and duals and masculine sound plurals), and Ø (as this occurs with diptotes).

4.1 The function of *-n* with triptotes

As argued in sections 1.1, 2.1 and 3.1, *-n* occurs with triptotes only when the noun is (i) indefinite, and (ii) does not occur as a genitive head with a following genitive annex (pronoun suffix or annex noun), i.e. when the noun is absolute. The function of *-n* with triptotes is thus: *both indefinite and absolute*.

4.2 The function of *-n* with duals and masculine sound plurals

As argued in sections 1.1, 2.1 and 3.1, *-n* occurs with triptotes only when the noun is absolute (i.e. when it is preceded by nothing or by *al-*). Definiteness and indefiniteness are irrelevant to the presence or absence of *-n*. Thus, both the definite *al-mudarris-ū-n* 'the teachers' and the indefinite *mudarris-ū-n* 'teachers' have final *-n*, while neither the definite *mudarris-ū l-maᶜhad-i* 'the teachers of the institute' nor the indefinite *mudarris-ū maᶜhad-i-n* 'teachers (INDEF.) of an institute' do. The function of *-n* with duals and masculine sound plurals is thus: *absolute (only)*.

4.3 The function of Ø with diptotes

What is meant by Ø (zero) with diptotes in this paper is the occurrence of a bare diptote without a preceding definite article *al-*, or a following pronoun suffix annex, or a following noun annex. As argued in sections 1.2, 2.2 and 3.2, Ø occurs with diptotes, only when the noun is (i) indefinite, and (ii) does not occur as a genitive head with a following genitive annex (pronoun suffix or annex noun), i.e. when the noun is absolute. The function of Ø with diptotes is thus: *both indefinite and absolute*. It should also be noted, however, that unlike *-n*, Ø is not a morpheme. It is, rather, what it looks like: nothing at all.

The morpheme *-n* thus functions variously either to denote (or mark) both indefinite and absolute with triptotes, or to denote (or mark) absolute (only) with duals and masculine sound plurals. The non-morpheme (or 'quasi-morpheme') Ø functions with diptotes to denote (mark) both indefinite and absolute, as does *-n* with triptotes. There is thus a somewhat complicated and messy interrelationship between the functions of *-n* (and Ø) going well beyond the simple ascription of *-n* to the function of either indefiniteness or absoluteness. The analysis of the major classes of nouns with respect to final *-n*, i.e. triptotes, diptotes, and duals / mascu-

line sound plurals, also applies to minor classes. Thus indeclinable nouns along the lines *ḏikrā* 'memory, memento' pattern together with *ṣaḥrā'-u* in never having a final *-n*. Forms such as *maⁱān-i-n* (nom. and gen.), *maⁱān-i-y-a* (acc.) 'meanings', are simply a combination of triptote-type (having *-n* in the nominative and genitive) and diptote-type (not having *-n* in the accusative), and the functions of *-n* and non-*n* in the case of *maⁱān-i(-n)* can be analysed accordingly. There is, however, one class of nouns which this analysis does not work for: proper noun triptotes, such as *muḥammad-u-n*. From the point of view of the present analysis, these are to be regarded as exceptions.

5. *Al-, -n*, pronoun suffixes, and genitives: lexotactic vs. delotactic structuring

Nouns/noun-phrases in Standard Arabic are either definite or indefinite, and where they involve an annexion (genitive) structure (with either a pronoun or noun/noun-phrase annex) every noun in the phrase has the same degree of definiteness: either definite or indefinite. I have proposed a structural (syntactic) analysis for nouns/noun-phrases involving *al-, -n*, pronoun suffixes, and genitives as in Table 12 (Section 3.1), reproduced immediately below as Table 14, with additional information on the definiteness or indefiniteness of the noun(s)/noun-phrase(s).

Table 14			**DEF. or INDEF.?**
bait-u (*al-*	)	'the house'	DEF.
bait-u (*-n*	)	'a house'	INDEF.
bait-u (*-hu*	)	'his house'	DEF.
bait-u (*jār-i* [*al-*	])	'the house of the neighbour'	DEF.
bait-u (*jār-i* [*-n*	])	'a house of a neighbour'	INDEF.
bait-u (*jār-i* [*-hi*	])	'the house of his neighbour'	DEF.
bait-u (*jār-i* [*ṣadīq-i* {*al-*}])		'the house of the neighbour of the friend'	DEF.
	etc.		

What the syntactic analysis given in Table 14 does is to show how *words* (here defined informally) and *morphemes* (here defined informally as elements constituting words) commute with one another. This syntax of words (and morphemes) – i.e. entities which have both form (expression) and meaning (content) – is known in extended axiomatic functionalism as lexotactics. Table 14 thus provides a lexotactic analysis. It is however also possible to strip away the words themselves and simply look at meaningful entities and how these combine. Syntax of this kind – dealing with meaning abstracted from all consideration of form/expression – is known in extended axiomatic functionalism as delotactics. Table 15 (below) provides an initial delotactic analysis of the structures discussed in this article. I use a backslash to indicate an 'abstract meaning' (devoid of form/expression). Thus, when *bait*\\ is written, this is to be read as "the abstract meaning expressed by the word *bait* in the sense 'house' (which might also be expressed by other words, e.g. *dār*) without reference to the form/expression involved)". I have removed consideration of case-endings from the delotactic analysis, as this would introduce areas not covered by this article. Having presented Table 15, I will discuss the precise meaning – and limitations – of each analysis below.

Consider the following:

1. *al-bait-u*   'the house'
2. *bait-u-n*   'a house'
3. *bait-u-hu*   'his house'
4. *bait-u l-jār-i*   'the house of the neighbour'
5. *bait-u jār-i-n*   'a house of a neighbour'
6. *bait-u jār-i-hi*   'the house of his neighbour'
7. *bait-u jār-i ṣ-ṣadīq-i*   'the house of the neighbour of the friend'

We can present the lexotactic analysis (already discussed; cf. Section 3.1), and proposed delotactic analysis of these as in Table 15.

Table 15

Lexotactic analysis			Delotactic analysis
1. bait-u (*al-*	) 'the house'		\DEF.\ + *bait*\
2. bait-u (-*n*	) 'a house'		\INDEF.\ + *bait*\
3. bait-u (-*hu*	) 'his house'		(\DEF.\ + *bait*\) ← \\-*hu*\
4. bait-u (*jār-i* [*al-*]	) 'the house of the neighbour'		(\DEF.\ + *bait*\) ← (\DEF.\ + *jār*\)
5. bait-u (*jār-i* [-*n*]	) 'a house of a neighbour'		(\INDEF.\ + *bait*\) ← (\INDEF.\ + *jār*\)
6. bait-u (*jār-i* [-*hi*]	) 'the house of his neighbour'		(\DEF.\ + *bait*\) ← ((\DEF.\ + *jār*\) ← \\-*hu*\))
7. bait-u (*jār-i* [*ṣadīq-i* {*al-*}])	'the house of the neighbour'		(\DEF.\ + *bait*\) ← ((\DEF.\ + *jār*\) ← (\DEF.\ + *ṣadīq*\)))
etc.	of the friend'		

Taking each of these in turn:

1. *al-bait-u* 'the house' can be analysed delotactically as \DEF.\ + *bait*\. The 'plus' symbol + is to be read as meaning a simple combination of two elements, i.e. \DEF.\ 'definiteness' (relayed lexically by *al-*) and *bait*\.

2. *bait-u-n* 'a house' can be analysed delotactically as \INDEF.\ + *bait*\, i.e. \INDEF.\ 'indefiniteness' (relayed lexically by -*n*) and *bait*\.

3. *bait-u-hu* 'his house' can be analysed delotactically as (\DEF.\ + *bait*\) ← \\-*hu*\. The arrow symbol ← is to be read as a combination of two elements, the one to which the arrow points being the head (in this case (\DEF.\ + *bait*\)) and the one away from which the arrow points being the modifier (in this case \\-*hu*\). Thus *bait-u-hu* 'his house' is analysed delotactically as \DEF.\ + *bait*\ (= 'the house') ← 'of his' (to use English glosses).[5] For justification of why the genitive 'of his' element should be regarded as the modifier, see the discussion of example 7. *bait-u jār-i ṣ-ṣadīq-i* 'the house of the neighbour of the friend' below.[6]

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5 Arguably the -*hu* 'of his' element in *bait-u-hu* 'the house of his' should itself be further analysed as containing a \DEF.\. I have not, however, pursued this in this article.

6 In Standard Arabic nouns with pronoun suffixes, such as *bait-u* '[the] house' in *bait-u-hu* 'his house' are always definite. In some Arabic dialects, by contrast, nouns with pronoun suffixes may be indefinite when they modify a previous noun. An example from Sudanese Arabic is *rājil jār-na* 'a man who is our neighbour' (more literally, 'a man our-neighbour'). Taking it that a definite noun has to have an indefinite modifier (noun or adjective) and that the head noun *rājil* is here indefinite, we have to conclude (correctly, I believe) that *jār-na* 'our neighbour' is also indefinite. In various languages it is possible to combine an indefinite article directly with a possessive pronoun, e.g. Turkish *bir arkadaşım* 'a friend of mine', where *bir* means 'a', *arkadaş* is 'friend', and the suffix *ım* is 'my'.

4. *bait-u l-jār-i* 'the house of the neighbour' can be analysed delotactically as ($\backslash$DEF.$\backslash$+$\backslash$*bait*$\backslash$) ← ($\backslash$DEF.$\backslash$+$\backslash$*jār*$\backslash$), i.e. a definite head 'the house' plus a definite modifier 'the neighbour' (using English glosses).

5. *bait-u jār-i-n* 'a house of a neighbour' can be analysed delotactically as ($\backslash$INDEF.$\backslash$+$\backslash$*bait*$\backslash$) ← ($\backslash$INDEF.$\backslash$+$\backslash$*jār*$\backslash$), i.e. an indefinite head 'the house' plus an indefinite modifier 'the neighbour' (using English glosses).

6. *bait-u jār-i-hi* 'the house of his neighbour' can be analysed, in the first instance, as ($\backslash$DEF.$\backslash$+$\backslash$*bait*$\backslash$) ← (($\backslash$DEF.$\backslash$+$\backslash$*jār*$\backslash$) ←$\backslash$*-hu*$\backslash$), i.e. as a head-modifier combination of two definite elements, the head of which is 'the house', while the modifier is 'the neighbour of his' (using English glosses). The second of these definite elements ($\backslash$DEF.$\backslash$+$\backslash$*jār*$\backslash$) ←$\backslash$*-hu*$\backslash$ can then itself be further analysed as a head-modifier combination of two elements, the head being ($\backslash$DEF.$\backslash$+$\backslash$ *jār*$\backslash$), while the modifier is $\backslash$*-hu*$\backslash$ 'of his'.

7. *bait-u jār-i ṣ-ṣadīq-i* 'the house of the neighbour of the friend' can be analysed as, in the first instance, as ($\backslash$DEF.$\backslash$+$\backslash$*bait*$\backslash$) ← (($\backslash$DEF.$\backslash$+$\backslash$ *jār*$\backslash$) ←$\backslash$ *ṣ-ṣadīq-i*$\backslash$), i.e. as a head-modifier combination of two definite elements, the head of which is 'the house', while the modifier is 'the neighbour of the friend (using English glosses). The second of these definite elements ($\backslash$DEF.$\backslash$+$\backslash$*jār*$\backslash$) ←$\backslash$*ṣ-ṣadīq-i*$\backslash$ can then itself be further analysed as a head-modifier combination of two elements, the head being ($\backslash$DEF.$\backslash$+$\backslash$*jār*$\backslash$), while the modifier is ($\backslash$DEF.$\backslash$+$\backslash$*ṣ-ṣadīq-i*$\backslash$) 'the friend'.

Example 7. shows why the relationship between the annexion-head (i.e. the first noun/noun-phrase in the genitive) and the annex (the subsequent noun/noun-phrase, perhaps itself complex, as in example 7) is a head-modifier relationship, rather than one of parity between the two elements (i.e. rather than a simple + relationship). The thing described by 'the house of a neighbour' is both 'a house' and 'a neighbour's [house]' (i.e. it belongs to a neighbour, or similar). It is not, however, (necessarily) also 'a friend's [house]'. Thus, the further one moves away from the annexion-head in terms of annexes, the less direct the connection between the referent of the relevant noun and the referent of the annex. Such 'referential distancing' can be taken to be a signal of modifier status (peripherality to a head) (cf. ZWICKY 1993; also CORBETT, FRASER and McGLASHAN 1993: 1). This establishes the general principle that an annex is peripheral to (i.e. it modifies) an annexion-head, and thus that the relationship between annexion-heads and annexes throughout (as applying to examples 3–7 above) is a head-modifier relationship.

6. Conclusion

I have tried to show that commutation can be used in relation to nouns to establish syntactic (lexotactic) structures in Standard Arabic covering *-n*, the definite article *al-*, pronoun suffixes, and nominal annexes. On this basis, I have argued that *-n* is neither simply a marker of indefiniteness, nor simply an absolute state marker. Rather, it may have both these functions (in the case of triptote nouns), or only the function of absolute state marker (in the case of duals and masculine sound plurals). I have argued for two different types of syntactic structuring: lexo-

tactic vs. delotactic. I have shown that a delotactic analysis of the features covered in this paper yields significantly different results from a lexotactic analysis.[7]

References

BADAWI, EL-SAID, CARTER, M. and GULLY, ADRIAN. 2004. *Modern written Arabic: a comprehensive grammar*. London and New York: Routledge.

CORBETT, GREVILLE B., FRASER, N.M. and MCGLASHAN, S. 1993. *Heads in grammatical theory*. Cambridge: Cambridge University Press.

CRYSTAL, DAVID. 1985. *A dictionary of linguistics and phonetics* (6th edn.). Oxford: Blackwell.

DICKINS, JAMES. 1998. *Extended axiomatic linguistics*. Berlin and New York: Mouton de Gruyter.

DICKINS, JAMES. 2009. 'Extended axiomatic functionalism: postulates'. In Linguistica Online: http://www.phil.muni.cz/linguistica/art/DICKINS/dic-001.pdf

DICKINS, JAMES. 2011. '*Faᶜ*l* forms in Sudanese Arabic: the reassertion of morphology'. In Zeitschrift fuer Arabische Linguistik, 53: 36-67.

HESELWOOD, BARRY. 2008. 'Simultaneous phonemes in English'. In Linguistica Online: http://www.phil.muni.cz/linguistica/art/heselwood/hes-001.pdf

HOLES, CLIVE. 1995. *Modern Arabic: structures, functions and varieties*. London: Longman.

LIPIŃSKI, EDWARD. 1997. *Semitic languages: outline of a comparative grammar*. Leuven: Peters.

LYONS, CHRISTOPHER. 1999. *Definiteness*. Cambridge: Cambridge University Press.

RETSÖ, JAN. 1984–1986. 'State, determination and definiteness in Arabic: a reconsideration'. In Orientalia Suecana XXXIII-XXXV (1984–1986). Pp. 341–346.

RETSÖ, JAN. 2010. 'Status – eine vernachlässigte Kategorie der arabischen Grammatik?'. In *Arabische Welt: Grammatik, Dichtung und Dialekte*. SHABO TALAY and HARTMUT BOBZIN (eds.). Wiesbaden: Reichert Verlag. Pp. 65–71.

WATSON, JANET. 1993. *A Syntax of Ṣanʕānī Arabic*. Wiesbaden: Harrassowitz.

Zwicky, ARNOLD. 1993 'Heads, bases and functors'. In G.B. Corbett, N.M. Fraser and S. McGlashan (eds.), *Heads in grammatical theory*. Cambridge: Cambridge University Press. Pp. 292–315.

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[7] One significant issue which this article glosses over is the fact that in Standard Arabic nunation (*tanwīn*), like case endings, is not normally written (except in the case of dual and masculine sound plural nouns). Nunation is similarly not always pronounced. According to the traditional, formal rules for speaking Standard Arabic, nunation is pronounced in liaison (*waṣl*) contexts, but not where there is pause after the relevant word (*waqf*). In more informal styles of speaking Standard Arabic, highly complex, probabilistic principles apply, such that it cannot typically be predicted with certainty where nunation will and will not be pronounced – although certain words in Modern Standard Arabic are always pronounced with case-endings and nunation, particularly accusative adverbs such as *ṭabᶜan* 'of course, naturally'. The implications of all this for the current analysis will be left for future research.