

## Head and Dependent Marking in Clausal Possession

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This article presents a new perspective on the derivational source for transitive verbs of possession. These are commonly postulated to be derived from a preposition expressing possession by incorporation of the preposition into an auxiliary. I reframe the contrast between prepositional and verbal expression of possession as an opposition between dependent and head marking of the possession relation, implemented syntactically as marking of either the specifier or the head of the projection encoding the possession relation. This conclusion is inferred from an investigation of Syrian Arabic showing that morphemes expressing possession alternate between a prepositional and a verbal use, but the verbal use does not involve incorporation of functional material. Evidence is presented that languages that show such incorporation, that is, where possession is expressed by a term of the form Aux+P, have passed through a diachronic stage similar to contemporary Syrian, where P functions as a verb in its own right. These considerations support the conclusion that transitive verbs of possession are derived not by preposition incorporation but by reanalysis of dependent marking as head marking, which may or may not feed incorporation.

*Keywords:* possession, preposition incorporation, head marking, dependent marking, argument structure, Arabic

### 1 Introduction

This article treats the typological relationship between languages with a transitive verb of possession, such as English, and languages that express possession through a preposition, such as Arabic. The relation is commonly cast in terms of preposition incorporation: the verb is derived by incorporation of a preposition expressing possession into an auxiliary, deriving a verb that has the distribution of its component auxiliary but the possessive meaning of its component preposition. In section 2, I investigate evidence from Syrian Arabic that indicates that the prepositions that mark possession in the syntactic format in (1a) may also be used as verbs in the syntactic format in (1b). The suffix *-u* in (1b) comes from a paradigm of genitive clitic pronouns, so that (1b) looks at first glance like (1a) with clitic left-dislocation of the object of the preposition. However, I endeavor to show that it is in fact a transitive verbal use of the preposition with agreement inflection. This use is not contingent on incorporation into an auxiliary. Taking Boneh and Sichel's (2010) analysis of the prepositional construction in (1a) as a starting point, I analyze these formats

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as alternative marking strategies: in (1a), the prominent dependent of the possession relation (the possessor) is marked as such; in (1b), the head of the possession relation is marked.

- (1) a.  $\text{ʕand karīm ḥsāb b-ʔl-bank.}$   
 at Karim account in-the-bank  
 ‘Karim has a bank account.’  
 b.  $\text{Karīm ʕand-u ḥsāb b-ʔl-bank.}$   
 Karim at-GEN.3MS (= has) account in-the-bank  
 ‘Karim has a bank account.’

In section 3, I compare the situation in Syrian with the situation in Maltese Arabic. In Maltese, possession may be expressed by a transitive verb consisting morphologically of an auxiliary and an incorporated preposition. But recent research on Maltese has shown that diachronically, the preposition already functioned as a verb before the incorporation structure arose (Camilleri 2019). This means that Maltese went through a diachronic stage identical to contemporary Syrian Arabic. These considerations point to the conclusion that preposition incorporation is not the pathway through which prepositions acquire a transitive verbal use. Rather, as dependent markers of the possession relation, they are subject to reanalysis as head markers. This reanalysis sets the stage for incorporation of the derived verb into higher functional material, rather than being a result of it.

## 2 Possession in Syrian Arabic

In Syrian Arabic, possession is primarily expressed by the preposition *ʕand*, as in (2a) (= (1a)), the same preposition that expresses the locative relation ‘at’, illustrated in (2b). Several other prepositions I turn to later express possession as well. Arabic is a null copula language; the copula only appears in nonpresent tenses.

- (2) a.  $\text{ʕand karīm ḥsāb b-ʔl-bank.}$   
 at Karim account in-the-bank  
 ‘Karim has a bank account.’  
 b.  $\text{l-ʕasākīr ʕand karīm min sāʕāt.}$   
 the-soldiers at Karim from hours  
 ‘The soldiers have been at Karim’s place for hours.’

The similarity between (2a) and (2b) seems to recommend an analysis of possessive constructions that makes them derivatives of locative constructions. Freeze (1992), for example, claims that the syntax of locative constructions underlies the prepositional schema for the expression of possession, which is derived by raising the locative PP to a left-peripheral position, contingent on the animacy of the object of the preposition. Transitive verbs of possession like English *have*, he claims, are derived from the prepositional possessive schema by incorporation of the preposition into the functional node I[*infl*]. The I+P complex is then spelled out as a transitive verb. Versions of this idea are pursued by Den Dikken (1995, 2006) and Harley (1995, 2002), among others, and by Ouhalla (2000) for (Moroccan) Arabic specifically.

However, Boneh and Sichel (2010) observe an asymmetry between locative and possessive constructions in the availability of PP-initial word order in Palestinian Arabic, which is like Syrian in the relevant respects. For locative constructions, this word order is marginal (3a) except in the presence of the existential particle *fī* (cognate with the preposition *fī* ‘in’ in Classical/Standard Arabic), as shown in (3b), while in possessive constructions this word order is natural without *fī*, though *fī* is available here, too, as (3c) shows.

- (3) a.  $\text{ʔʔʔand karīm tlet ʔasākir.}$   
           at Karim three soldiers  
           ‘Three soldiers are at Karim’s house.’  
    b.  $\text{fī ʔand karīm tlet ʔasākir.}$   
           FI at Karim three soldiers  
           ‘Three soldiers are at Karim’s house.’  
    c.  $\text{(fī) ʔand karīm ḥsāb b-ʔl-bank.}$   
           (FI) at Karim account in-the-bank  
           ‘Karim has a bank account.’

Boneh and Sichel claim for this and other reasons that, contra Freeze, possessive and locative constructions have distinct base structures. In the base structure of the locative construction in (3b), the subject DP and predicate PP are syntactic relata of a “relator” head R, schematized in (4b) on the model of Den Dikken’s (2006) analysis of locative constructions. Spec,IP is subject to an EPP requirement that in principle a PP may fulfill, as we will see in possessive constructions below. However, a PP may not undergo A-movement out of the domain of R, precluding movement of PP to Spec,IP in locative constructions, as (4a) illustrates.<sup>1</sup> In this case, *fī* is inserted to fill the otherwise vacant subject position, making *fī* analogous to English existential *there*. The structure in (4b), which itself represents a natural word order for locative constructions, also admits inversion of PP with the subject DP, deriving (3b), but only in the presence of *fī*. Therefore, this inversion procedure likely involves  $\bar{A}$ -movement of PP to adjunct-of-RP.<sup>2</sup> The fact that (3a)/(4a) is not

<sup>1</sup> Boneh and Sichel (2010) claim, again following Den Dikken (2006), that movement of R to I extends the domain of R, permitting PP-movement to Spec,IP after all. The R+I complex, though, is spelled out as the auxiliary *kān* ‘was’, licensing (i) in the Palestinian dialect they treat (after further movement of *kān* to C; see their discussion on pp. 22–23).

- (i)  $\text{kān ʔanb muna tlet ūlād.}$   
       was beside Muna three children  
       ‘There were three children next to Muna.’ [grammatical in Palestinian; marginal in Syrian]

However, Syrian speakers consistently judge (i) to be as marginal as the counterpart without *kān* in (3a) and insist on inserting *fī* after *kān* in (i). This means that *kān* has no licensing effect on PP-raising in Syrian and so there is no evidence that the domain of R can ever be extended in that dialect. I present a different analysis of the origin of *kān* and *fī* below for Syrian, but follow Boneh and Sichel in their claim that the locative PP complement of R cannot undergo A-movement all other things being equal.

<sup>2</sup> Boneh and Sichel (2010) point out that  $\bar{A}$ -movement is not restricted in the way A-movement is. A locative PP may be  $\bar{A}$ -moved to the left clause edge in both Palestinian and Syrian, but still only in the presence of *fī*, as shown in (i) (see Boneh and Sichel 2010:21–22).

- (i)  $\text{ʔanb muna (kān) fī tlet ūlād.}$   
       beside Muna (was) FI three children  
       ‘Next to Muna there were/are three children.’



directly precede a finite verb, as shown in (6b), where the definite subject may precede or follow NEG+V, but may not intervene between the two morphemes.

- (6) a. *ma* \*(kān / rah yikūn / fī) ʔand karīm ḥsāb b-ʔl-bank.  
 not \*(was / will be / fī) at Karim account in-the-bank  
 ‘Karim didn’t / won’t / doesn’t have a bank account.’  
 b. ⟨l-ʔārib⟩ *ma* waṣal ⟨l-ʔārib⟩ ʔabl ʔl-yurūb.  
 ⟨the-boat⟩ not arrived ⟨the-boat⟩ before the-sunset  
 ‘The boat didn’t arrive before sunset.’

The examples in (6) show that *fī* has the same licensing effect on negation as verbs do, including auxiliaries. This puts *fī* in the class of verbs as far as negation is concerned. One explanation, then, for the necessity to insert *fī* after *ma* in lieu of an auxiliary in possessive constructions like (6a) is that *ma* bears a syntactic selectional feature that triggers head movement of the next lower verb up to *ma*, forming a complex head [Neg [V]]. In Minimalist terms, *ma* probes for the feature [+V]. The verbal element in this complex must be overt, arguably to provide *ma* with a morphological host.<sup>4</sup> Benmamoun (2000) makes a similar claim about *ma*: namely, that it carries the feature [+D] that must be checked by a D-feature-bearing head, which includes verbs by virtue of the agreement suffix they bear. This feature attracts V to Neg in Benmamoun’s system. It may be relevant in this connection that Mohammad (2000) claims that the long vowel in *fī* is a relic of a third person enclitic *-h*, which bled a historical vowel-shortening process before being lost. If *fī* retains the D-feature of its former pronominal suffix, the claims I make here are compatible with Benmamoun’s system.

The crucial thing for present purposes is that *fī*’s interaction with negation is typical of verbs. As (7) reiterates, *fī* occurs between an auxiliary verb—which, as a marker of tense, arguably occurs in T—and the possessor PP, which I claim following Boneh and Sichel occurs in Spec,ApplP. In the standard clause structure [T [vP [ApplP [VP]]]], a verbal position occurs between T and ApplP, namely little-*v*, which—if the possessor is generated in ApplP and the theme in VP—is itself semantically vacuous. I propose that *fī* heads this semantically vacuous vP both in possessive constructions and in locative constructions (where, however, RP occurs instead of ApplP-VP, as described above). This makes *fī* verbal, and rhymes together with the fact that *fī* never precedes an auxiliary in Syrian Arabic.

- (7) kān / rah yikūn fī ʔand karīm ḥsāb b-ʔl-bank.  
 was / will be fī at Karim account in-the-bank  
 ‘Karim had / will have a bank account.’

<sup>4</sup> Aside from the fact that the sequence *ma*+V may not be split up by other material, additional circumstantial evidence supports the idea that *ma* requires a morphological host: when Syrian speakers write negative sentences in the Syrian dialect, they commonly write *ma* together with the following word without a space between them, as if *ma* were a prefix of the following word. This is not Standard Arabic orthography and so presumably reflects an intuition about word boundaries in the dialect. Mohammad (2000) and Benmamoun (2000) also consistently transcribe *ma* as a morphological unit with the following verb in Palestinian and Moroccan, respectively, and Benmamoun refers to *ma* explicitly as a “proclitic” on p. 71. I know of no phonological studies corroborating these intuitions.

This analysis is supported by indications that *fī* blocks the occurrence of a lexical verb, as expected if lexical verbs “span” both big-V and little-v. In Syrian Arabic, if a verbal sentence, for example on the model of (6b), has an indefinite subject, that subject may follow the verb, as in (8a). It may also precede it, but only when in turn preceded by *fī*, as in (8b). But *fī* may not precede the verb when the indefinite subject follows the verb, as (8c) shows. Note that agreement on unaccusative *waṣal* ‘arrive’ is contingent on its linear order with respect to its subject (8a–b), but (8c) is ungrammatical with or without agreement. This pattern is consistent with the claim that *fī* is not compatible with a verbal predicate and that the apparent verb phrase *waṣl-u baʿd ʿl-yurūb* ‘arrived after sunset’ in (8b) is a relative clause modifying the subject *ʿawārib ktīre* ‘many boats’, which in turn is predicated on a null existence predicate (no relative pronoun appears in relative clauses in Arabic when the head of the relative clause is indefinite, as in (8b)). This proposal predicts the ungrammaticality of the word order in (8c), since the relative clause is not a continuous constituent there.<sup>5</sup>

- (8) a. *waṣal ʿawārib ktīre baʿd ʿl-yurūb.*  
 arrived boats many after the-sunset  
 ‘Many boats arrived after sunset.’
- b. *fī ʿawārib ktīre waṣl-u baʿd ʿl-yurūb.*  
 FI boats many arrived-PL after the-sunset  
 ‘There are many boats that arrived after sunset.’
- c. \**fī waṣal ʿawārib ktīre baʿd ʿl-yurūb.*  
 FI arrived boats many after the-sunset  
 (‘There were many boats that arrived after sunset.’)

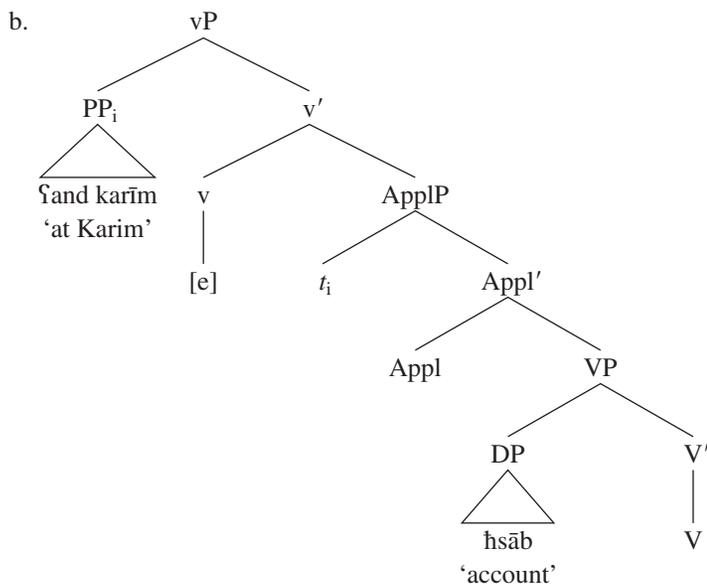
Alexiadou and Anagnostopoulou (1998) propose that the EPP requirement associated with a projection HP may be fulfilled either by insertion of a phrasal constituent in Spec,HP or by insertion of a head in H<sup>0</sup>. I have argued that *fī* is a head in Syrian Arabic, contrary to Boneh and

<sup>5</sup> The verbhood of *fī* is also supported circumstantially by data from the neighboring Palestinian dialect, where the negative particle *ma* triggers a secondary negative suffix *-f* on the following verb, as in (ia) (Mohammad 2000; Benmamoun (2000) and Brustad (2000) report similar facts for Moroccan and Egyptian Arabic). The term *fī* functions as a verb in this respect, as (ib) shows.

- (i) *Palestinian*
- a. *ma dʒā-f ʔeħmad.*  
 not came-NEG Ahmad  
 ‘Ahmad did not come.’  
 (Mohammad 2000:37, (120b))
- b. *ma-fī-f be-d-dār zalame.*  
 not-FI-NEG in-the-house man  
 ‘There is not a man in the house.’  
 (Mohammad 2000:40, (129))

Sichel, and accordingly reformulate the complementarity of *fī* and PP-raising in Alexiadou and Anagnostopoulou's terms: vP bears an EPP feature in Syrian Arabic, which may be fulfilled either by movement of a phrasal constituent to Spec,vP or by insertion of *fī* in  $v^0$ , as illustrated in (10). As before, in locative constructions PP cannot undergo A-movement to Spec,vP and so *fī* must be inserted. In verbal sentences, as described above, this requirement is met systematically by V-to-v movement of the verb itself, blocking *fī*.<sup>6</sup>

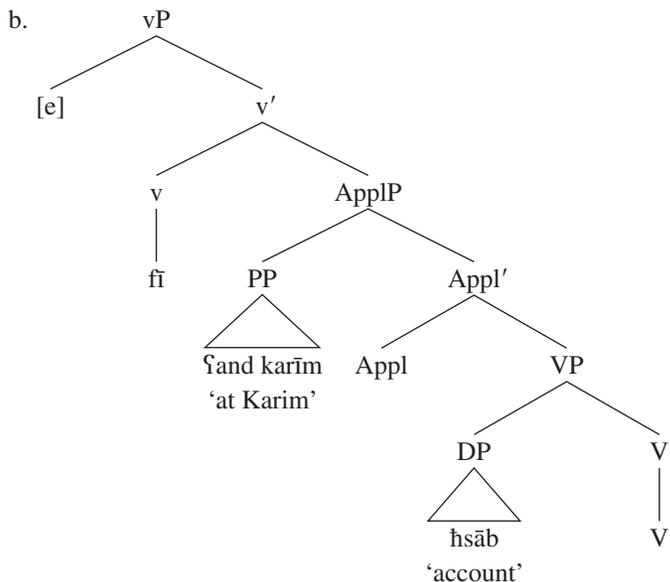
- (9) a.  $\int$ and karīm ḥsāb b-<sup>3</sup>l-bank.  
at Karim account in-the-bank  
'Karim has a bank account.'



<sup>6</sup> The particle *fī* is also incompatible with definite subjects, illustrated in (ia) for locative constructions. I assume this is because a definite subject moves through Spec,vP on its way out of the predicate—a region reserved for weak quantifiers (Diesing 1992)—obviating *fī* in passing, as illustrated in (ib). In Syrian Arabic, such constructions are negated by a distinct negative particle *mu*, which is used exclusively for constituent negation—here of PP, shown in (ic) (Cowell 1964:383–388, Brustad 2000:301–306).

- (i) a.  $\langle *fī \rangle$   $\int$ - $\int$ amsiyye  $\langle *fī \rangle$   $\int$ anb l-bāb.  
 $\langle *FI \rangle$  the-umbrella  $\langle *FI \rangle$  beside the-door  
'The umbrella is next to the door.'  
b. [<sub>vP</sub>  $\int$ - $\int$ amsiyye<sub>i</sub> v<sup>0</sup> [<sub>RP</sub> t<sub>i</sub> R<sup>0</sup> [<sub>PP</sub>  $\int$ anb l-bāb ]]]  
the-umbrella beside the-door  
c.  $\int$ - $\int$ amsiyye mu  $\int$ anb l-bāb.  
the-umbrella not beside the-door  
'The umbrella is not next to the door.'

- (10) a. *fī* *ʕand* *karīm* *ḥsāb* *b-ʔl*-bank.  
 Fī at Karim account in-the-bank  
 ‘Karim has a bank account.’



Now note that the possessive construction in (9a), shown again in (11a), alternates freely with the syntactic format illustrated in (11b), in which the possessor appears clause-initially as a bare DP, followed by the preposition *ʕand* with a suffixal inflection indexing the possessor, followed in turn by the possessee.

- (11) a. *ʕand* *karīm* *ḥsāb* *b-ʔl*-bank.  
 at Karim account in-the-bank  
 ‘Karim has a bank account.’  
 b. *karīm* *ʕand-u* *ḥsāb* *b-ʔl*-bank.  
 Karim at-GEN.3MS account in-the-bank  
 ‘Karim has a bank account.’

The inflection that appears on the preposition in (11b) is identical to the clitic paradigm representing objects of prepositions in general. This paradigm occurs in what in Classical Arabic are genitive case positions, for which reason I refer to this as the *genitive clitic paradigm*, though it is the only vestige of genitive case in modern Arabic.<sup>7</sup> Since Arabic makes heavy use of clitic

<sup>7</sup> The full paradigm is 1s *-i*, 1PL *-na*, 2MS *-ak*, 2FS *-ik*, 2PL *-kun*, 3MS *-hu*, 3FS *-ha*, 3PL *-hun*. The 3FS clitic *-ha* reduces to *-a* after a consonant. The 3MS clitic *-hu* reduces to *-u* after a consonant and to *-h* after a vowel. The reduced form *-h* typically deletes altogether. However, these clitics cause the main word stress to shift to the syllable preceding the clitic, which in turn bleeds shortening of word-final long vowels (Cowell 1964:19, 27). The form [wa'ra:] ‘behind it’ (with unpronounced *-h*) is distinguishable from the unaffixed counterpart [wara] ‘behind’ by the placement of stress and the accompanying vowel length contrast. I write the 3MS clitic after a vowel as *-h*, but emphasize here that this morpheme is typically only audible as a stress alternation that may affect vowel length.

left-dislocation in general (see especially Brustad 2000:chap. 10 and Aoun, Benmamoun, and Choueiri 2010:chaps. 8–9), it stands to reason that it is possible to parse (11b) as the prepositional construction in (11a) with clitic left-dislocation of the possessor to a left-peripheral position. Some evidence discussed below indicates that (11b) can indeed be parsed in this way. But I argue below that an additional parse is available for (11b) in which the term *ʕand-u* ‘at-GEN.3MS’ functions syntactically like a transitive verb. Most revealingly, the negation of the construction in (11b) does not require insertion of *fī*, as illustrated in (12b). This is unlike the prepositional possessive construction seen in (11a), where the preposition takes a full object complement rather than a clitic, and negation requires insertion of *fī* (or an auxiliary), as illustrated in (12a) (and (6a)). But (12b) is like the verbal construction in (6b), where *ma* directly precedes the verb without an intervening *fī*. The term *ʕand-u* in (11b) is like a verb in this respect.<sup>8</sup>

- (12) a. *ma \*(fī) ʕand karīm ḥsāb b-ʔl-bank.*  
 not \*(F1) at Karim account in-the-bank  
 ‘Karim doesn’t have a bank account.’  
 b. *karīm ma ʕand-u ḥsāb b-ʔl-bank.*  
 Karim not at-GEN.3MS account in-the-bank  
 ‘Karim doesn’t have a bank account.’

In addition to the differing behavior under negation, (11a) and (11b) differ in whether they allow the possessee to be definite. The prepositional construction in (11a) does not, as (13a) shows. It is unclear why, if (13b) is merely (13a) with left-dislocation of the possessor, they should place different definiteness requirements on the theme.

- (13) a. *\*ʕand karīm ha-ll-ʔktāb kamān.*  
 at Karim that-the-book too  
 (‘Karim has that book, too.’)  
 b. *karīm ʕand-u ha-ll-ʔktāb kamān.*  
 Karim at-GEN.3MS that-the-book too  
 ‘Karim has that book, too.’

The definite object in (13b) may also be pronominal, in which case it is pronominalized in the accusative clitic paradigm reserved for object pronouns. A head may not bear more than one clitic suffix in Arabic, and since the head *ʕand* already bears an inflection agreeing with the possessor in (11b) in the genitive clitic paradigm, it may not also host an accusative object clitic. In this case, the object clitic appears on the dummy host *yā*, seen in (14a<sub>ii</sub>), which also occurs in certain verbal constructions, such as double object constructions when both objects are pronom-

<sup>8</sup> In Palestinian Arabic, the phrase *ʕand+AGR* takes the secondary negative suffix *-ʕ*, as (i) shows; in this respect, it behaves like *fī*, which in turn behaves like a verb (see footnote 5). Benmamoun (2000) and Brustad (2000) report similar facts in Moroccan and Egyptian.

- (i) *ma-ʕend-u-ʕ ktāb.*  
 not-at-him-NEG book  
 ‘He doesn’t have a book.’  
 (Mohammad, n.d.:18, (58a))

inalized, illustrated in (14b) (see Cowell's (1964:413, 545) remark that *ʕand*+AGR is like a verb in this respect).<sup>9</sup>

- (14) a. i. wēn qāmūs-ak l-inklīzi?  
 where dictionary-GEN.2MS the-English  
 'Where's your English dictionary?'  
 ii. muna ʕand-a yā-h.  
 Muna at-GEN.3FS YA-ACC.3MS  
 'Muna has it.'  
 b. muna ʕaṭi-t-ni yā-h.  
 Muna gave-3FS-ACC.1S YA-ACC.3MS  
 'Muna gave me it.'

The pronominal possessee in (14a<sub>ii</sub>) is not possible in the prepositional configuration with *ʕand* (where the possessor occurs as object of the preposition), as (15) shows. This suggests that the grammatical (14a<sub>ii</sub>) contains a verbal element that assigns accusative case to the object. Accusative case correlates with the possibility of definiteness seen in (13b), perhaps because case facilitates covert movement of the possessee to a predicate-external position for strong quantifiers, while in the absence of case the possessee cannot escape the predicate and therefore must remain indefinite (Diesing 1992).

- (15) \*ʕand muna yā-h.  
 at Muna YA-ACC.3MS  
 ('Muna has it.')

It seems unlikely that the differences between the prepositional construction in (11a) and the alternant in (11b) could reduce to a purely information-structural contrast accompanying clitic left-dislocation. If anything, the derivation of a topic-comment structure accompanying clitic left-dislocation might be expected to place an *indefiniteness* requirement on the possessee, since it is part of the comment on the given information represented by the topic. There is no particular reason to expect that the possessee can be definite just when the possessor is left-dislocated. Nor is it clear how accusative case as reflected in the object clitic agreement paradigm in (14a<sub>ii</sub>) could arise by virtue of clitic left-dislocation of the possessor alone. On the other hand, treating *ʕand*+AGR in (11b) as a transitive verb explains why its object may be definite (transitive verbs generally do not place an indefiniteness restriction on their object) and why the object is accusative (transitive verbs assign accusative case).

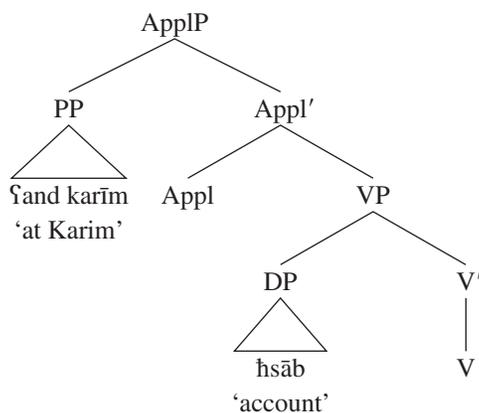
We have also seen that the negation of the prepositional structure in (11a) demands *fī*, as (12a) shows, because, as I have argued, negation requires a morphological host. If (12b) is simply

<sup>9</sup> The accusative clitic paradigm is the same as the genitive clitic paradigm cited in footnote 7, except in the first person singular, where the genitive is *-i* and the accusative *-ni*. Compare *ʕand-i* 'at me' with *ʕāf-ni* '[he] saw me'.

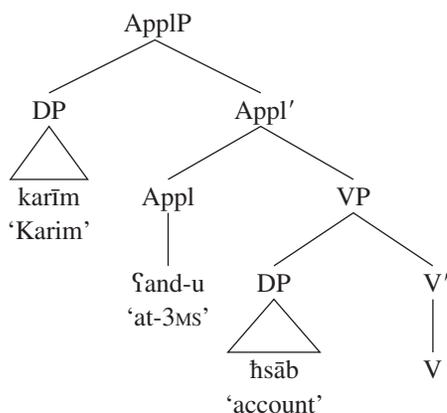
(12a) with clitic left-dislocation of the possessor, it is unclear why *fī* is not required in (12b). There is no particular reason to expect the derivation of a topic-comment structure to suspend a requirement associated with negation. On the other hand, the idea that  $\zeta and+AGR$  can be construed as a head in (11b)/(12b) predicts that *fī* will not be found in this environment, since  $\zeta and+AGR$  itself can function as a morphological host for negation in that case.

I therefore propose that (11b) may be parsed into a syntactic structure in which  $\zeta and+AGR$  has the syntactic status of a verb and may therefore function as a host for negative *ma*. Following the typological literature on Arabic, I refer to  $\zeta and+AGR$  as a *pseudoverb*, since it is syntactically but not morphologically verbal.<sup>10</sup> Specifically, I propose that  $\zeta and$  in (11b) is base-generated in the head of ApplP, rather than as a preposition in the specifier of ApplP. The preposition  $\zeta and$  that occurs as a marker of the specifier of ApplP in the prepositional construction in (11a) is construed in (11b) as a marker of the head of ApplP, that is, as occurring in Appl<sup>0</sup> itself. The possessor, which is base-generated as a complement of  $\zeta and$  in the prepositional structure, is base-generated as a bare DP in Spec,ApplP in the pseudoverbal structure and controls the agreement suffix on the head in Appl<sup>0</sup>. On this view, the underlying structure of the prepositional possessive sentence in (11a) is as shown in (16) (the same structure illustrated in (10b), based on Boneh and Sichel's (2010) proposal), while the underlying structure of the pseudoverbal possessive sentence in (11b) is as shown in (17). As the head of Appl<sup>0</sup>,  $\zeta and+AGR$  in (17) may raise to Neg (via  $v^0$ , not shown) to provide negation with a syntactic host.

(16) *Prepositional possession*



<sup>10</sup> See also Cowell 1964:412–416, Comrie 1991, 2008, and Brustad 2000:151–161, among others. Among other terms that have been described as pseudoverbs in the Arabic literature are *bidd+AGR* 'want' (etymologically *bi-wudd-i-AGR* 'by-wish-GEN-AGR'; i.e., 'by so-and-so's wish'), *lāzim+AGR* 'need' (morphologically an active participle), *fī+AGR* 'can, be able' (from the preposition *fī* 'in' but with a different distribution from the existential *fī* above, which does not accept an agreement suffix). Although the class of pseudoverbs is larger than the class of markers of possession, only  $\zeta and$  and other markers of possession described later alternate between a pseudoverbal and a prepositional use.

(17) *Pseudoverbal possession*

This analysis raises the question of whether example (11b), which I claim can be parsed as a pseudoverbal construction, may optionally be parsed as a prepositional construction in which the possessor is clitic-left-dislocated. At least one observation indicates that this is so: *fī* may occur in (11b), but then the possessee may not be definite, as (18) shows (cf. (13)). This indicates that (18) is a prepositional possessive construction, but that this construction admits clitic left-dislocation of the possessor, deriving a string identical in word order to but different in structure from the pseudoverbal construction.

- (18) *karīm fī ʔand-u ktāb / \*ha-ll-ʔktāb / \*yā-h.*  
 Karim <sub>FI</sub> at-GEN.3MS book / \*that-the-book / \*YA-ACC.3MS  
 ‘Karim has a book / \*that book / \*it.’

In light of this conclusion, we might also expect the possessor itself to display different properties depending on whether *fī* is present in the context in (18). With *fī*, the possessor is clitic-left-dislocated; without *fī*, it is itself the external argument. It so happens that clitic-left-dislocated DPs largely display argument properties in Arabic and for that reason are commonly referred to as “broad subjects” rather than “topics” (Doron and Heycock 1999, 2010, Alexopoulou, Doron, and Heycock 2004, Aoun, Benmamoun, and Choueiri 2010). Unlike in Romance languages (see, e.g., Cinque 1990), quantificational DPs may be clitic-left-dislocated in Arabic, as shown in (19), where an object is dislocated (Alexopoulou, Doron, and Heycock’s example (32b) from Lebanese Arabic, here slightly Syrianized; Aoun, Benmamoun, and Choueiri (2010:197) make this same point about Lebanese).

- (19) *wala wāhid<sub>i</sub> b-i-fawwt-u l-muwazzifīn illi b-i-ʔtiyl-u maʔ-<sub>i</sub>.*  
 no one IND-3-let.in-PL the-employees that IND-3-work-PL with-him  
 ‘No one<sub>i</sub> is such that they let in the employees who work with him<sub>i</sub>.’

As expected, then, there is no difference in the range of quantifiers that can occur as possessors with and without *fī*, where *fī* disambiguates in favor of the clitic-left-dislocation parse of the

prepositional construction. The negative quantifier *wala wāhid* ‘no one’, for example, may occur as possessor in (20b) with or without *fī*. As a result, the clitic-left-dislocation parse of (11b) is not distinguishable from the pseudoverbal parse in terms of properties of the (broad) subject; the two construals are distinguished only in the way they interact with *fī*, negation, and the (in)definiteness of the object.<sup>11</sup>

- (20) a. This game is so hard, that . . .  
 b. *wala wāhid (fī) ʕand-u furṣa la-yi-fūz fī-ha.*  
 no one (F1) at-GEN.3MS chance to-3MS-win in-it  
 ‘No one has a chance to win it.’

Several other prepositions expressing possessive relations in Syrian Arabic also enter into the head- vs. dependent-marking alternation I have described above. That is, there is some generality to the alternation between head and dependent marking of possession. The other prepositions that enter into the alternation express subcases of possession. As Naïm (2003), Boneh and Sichel (2010), and others discuss (see Shboul 1983 on Standard Arabic), the allative preposition *la-* ‘to’ also expresses inalienable (21a) or part-whole (21b) possession, and the comitative preposition *maʕ* ‘with’ carries a connotation of relatively direct physical contact between the possessor and the possessee (21c). That these are prepositional constructions is clear from the fact that they cannot be negated without *fī* (or an auxiliary verb, not shown).

- (21) a. *ma \*(fī) la-muna ʕyūn hilwīn.*  
 not \*(F1) to-Muna eyes pretty  
 ‘Muna doesn’t have pretty eyes.’  
 b. *ma \*(fī) la-ll-ʕxzāne ʔarbaʕ bwāb.*  
 not \*(F1) to-the-cupboard four doors  
 ‘The cupboard doesn’t have four doors.’  
 c. *ma \*(fī) maʕ muna mūbāyḷ.*  
 not \*(F1) with Muna cell.phone  
 ‘Muna doesn’t have a cell phone with her.’

These prepositions may also be used pseudoverbally, as illustrated in (22), where negation does not require *fī*; the preposition-clitic complex may itself function as host for negation. Note that *la-* is resyllabified as *il-* when it bears an inflectional suffix.

<sup>11</sup> For the record, quantifiers like *wala wāhid* ‘no one’ may also occur in the prepositional phrase in the prepositional possessive construction, as (i) shows, an alternative way of expressing (20b), though when the negative quantifier is a nonsubject the sentence must also bear clausal negation, which in turn requires *fī* (or an auxiliary).

(i) *ma fī ʕand wala wāhid furṣa la-yi-fūz fī-ha.*  
 not F1 at no one chance to-3MS-win in-it  
 ‘No one has a chance to win it.’

- (22) a. *muna ma il-a ʕyūn hilwīn.*  
 Muna not to-GEN.3FS eyes pretty  
 ‘Muna doesn’t have pretty eyes.’
- b. *l-ʔxzāne ma il-a ʔarbaʕ bwāb.*  
 the-cupboard not to-GEN.3FS four doors  
 ‘The cupboard doesn’t have four doors.’
- c. *muna ma maʕ-a mūbāyl.*  
 Muna not with-GEN.3FS cell.phone  
 ‘Muna doesn’t have a cell phone with her.’

The restrictions on the subtype of possession marked by these morphemes hold regardless of their use as prepositions or pseudoverbs. Examples (23a–b) show that *maʕ* ‘with’ is incompatible with an abstract property possessee in both its prepositional and pseudoverbal uses, respectively, and (24a–b) show that *la-/il-* is incompatible with alienable possession in both uses.

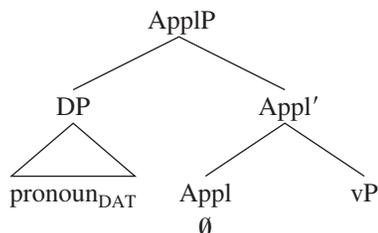
- (23) a. *\*ma fī maʕ muna mawhibe mūsīqīyye kbīre.*  
 not FI with Muna talent musical great  
 (‘Muna doesn’t have great musical talent.’)
- b. *\*muna ma maʕ-a mawhibe mūsīqīyye kbīre.*  
 Muna not with-GEN.3FS talent musical great  
 (‘Muna doesn’t have great musical talent.’)
- (24) a. *\*ma fī la-muna ḥsāb b-ʔl-bank.*  
 not FI to-Muna account in-the-bank  
 (‘Muna doesn’t have a bank account.’)
- b. *\*muna ma il-a ḥsāb b-ʔl-bank.*  
 Muna not to-GEN.3FS account in-the-bank  
 (‘Muna doesn’t have a bank account.’)

These observations show that there is some generality to the alternation between the prepositional and pseudoverbal use of the prepositions that express possession. In each case, the preposition can be used to mark the possessor directly or to mark the head of the possessive relation. They differ only in restrictions they place on the possession relation: *la-* requires inalienability, *maʕ* requires direct contact. *ʕand* is the least restrictive. In terms of the present proposal, this situation suggests that the different prepositions reflect different “flavors” of possession relation. We might represent these different flavors as features of  $\text{Appl}^0$ —[+inalienable] for *la*, [+contact] for *maʕ*. This idea represents a fine-grain extension of the notion that different thematic roles of indirect objects are assigned by different  $\text{Appl}$  heads (Pylkkänen 2002, 2008, Cuervo 2003, 2010). The crucial thing for present purposes is that as restrictions on the possessive relation that  $\text{Appl}^0$  denotes, these features are equally capable of selecting the form of the preposition in  $\text{Spec,ApplP}$  as the head  $\text{Appl}^0$  itself, since the specifier is within the selectional domain of the head. These formatives—*ʕand*, *la-*, and *maʕ*—carry the same features in the prepositional and pseudoverbal formats. In some dialects of Arabic, though, the prepositional variant has fallen out of usage. I describe the significance of this in the following section.

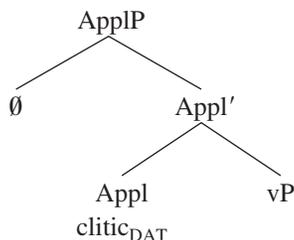
### 3 Head Marking Is prior to Incorporation

The analysis of the syntax of possession in Syrian Arabic outlined above bears a resemblance to certain proposals in diachronic syntax. Roberge and Troberg (2009), for example, claim that noncore dative clitics in Romance languages are Appl<sup>0</sup> heads along the lines of Sportiche's (1996) analysis of clitic constructions; further, they claim that these constructions arose as reanalyses of full pronouns that occurred in the specifiers of those heads, as schematized in (25) and (26) (Roberge and Troberg 2009:287, (59a–b)). These clitics occur above vP.

(25) *Late Latin*

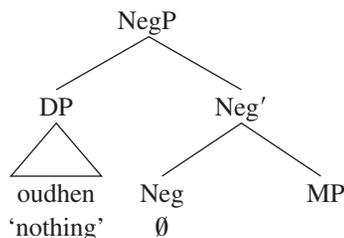


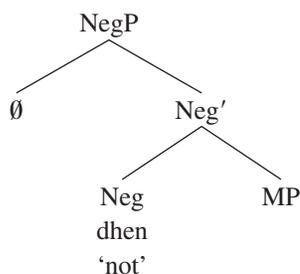
(26) *Modern Romance*



Similarly, citing Horrocks (1997), Roberts and Roussou (2003) consider the development of the modern Greek negative marker *dhen* 'not' to be a reanalysis of the quantifier *oudhen* 'nothing' in Spec,NegP as the head Neg itself; this is illustrated in (27) and (28) (after Roberts and Roussou 2003:159, (53b); (MP = Modal Phrase)). Roberts and Roussou regard this process as one main type of grammaticalization, the other main type being reanalysis of a head H adjoined (i.e., raised) to a head X as X itself.

(27) *Koine Greek*



(28) *Modern Greek*

The analysis of Syrian Arabic described above bears a resemblance to these diachronic events. There, the expression P+AGR can be construed either as a PP (containing an object clitic pronoun) in Spec,AppIP or as an inflected head in AppI<sup>0</sup>. A conventional analysis of transitive verbs of possession going back to Benveniste 1966 treats them as derived by incorporation of an abstract preposition into an auxiliary or functional head. Possessive verbs in some languages transparently display the internal composition Aux+P, seemingly proving Benveniste's point. Evidence reviewed below, however, suggests that that state of affairs is preceded by a diachronic step in which the preposition is reanalyzed as a transitive verb in its own right, along the lines of what I have argued for Syrian Arabic. It is not incorporation of P into an auxiliary that derives a transitive verb, but reanalysis of P as a head marker, which may in turn feed incorporation.

For example, Heine (1997:77–78) describes the development of the Coptic verb *wenta-f* 'have-3MS' from Late Egyptian *wn mdj-f* 'be with-3MS' as fusion of the preposition with the auxiliary in the latter form, resulting in a morpheme that is inflected in the same paradigm as the clitic suffix of the erstwhile preposition, parallel to Arabic. Stassen (2009:chap. 6) describes similar diachronic developments in a variety of other languages. The beginnings of this process can be observed in Syrian Arabic. In Syrian Arabic, the pseudoverb *il*+AGR, but not the preposition *la-*, may be encliticized to a preceding auxiliary *kān*, as (29) shows. The encliticization is evident in the shortening of the stem vowel of the auxiliary *kān* in (29a) in the environment of the complex coda created by cliticization. Some but not all speakers also admit assimilation of /n/ to [l] in this environment. The bona fide preposition *la-* (preceding a full DP), however, cannot be encliticized to preceding *kān*, as (29b) shows; only pseudoverbal *il*+AGR may.

- (29) a. muna kan-l-a            / %kal-l-a            ʔyūn hilwīn.  
 Muna was-to-GEN.3FS /    was-to-GEN.3FS eyes pretty  
 'Muna had pretty eyes.'
- b. \*kan-la-muna ʔyūn hilwīn.  
 was-to-Muna eyes pretty  
 ('Muna had pretty eyes.')

Although this optional encliticization is a potential launching point for future reanalysis of *kall*+AGR into a verbal word form of the kind seen in Coptic and other languages, the synchronic evidence in Syrian presented in this article indicates that *il*+AGR is *already* functioning as a verb in this language, even when it does not cliticize to an auxiliary. The verbal use feeds encliticization

(29a); the prepositional use does not (29b). Reanalysis of the preposition as a verb makes encliticization possible; lexicalization of the encliticized form may follow.

Just this diachronic development is postulated for the Maltese dialect of Arabic by Camilleri (2019). As Comrie (1981), Peterson (2009), Spagnol (2009), and others describe, possession in the present tense is expressed in Maltese by *ghand*+AGR, cognate with Syrian *ʕand*+AGR (30a). If *ghand* is followed by a full DP, it may only express location at the DP referent. The possessive use is only found for the inflected form whose subject functions as possessor. But to express possession in the nonpresent tense, the transitive verb *kell*+AGR is used (30b) (the citation form is the past tense form; for the future, the predictable imperfect form *ikoll*+AGR is used). AGR represents the genitive clitic paradigm in Maltese as in Syrian. Comrie and others analyze the nonpresent form as fusion of the string *kien il*+AGR, cognate with Syrian *kān il*+AGR. What in Syrian is still an optional encliticization of the pseudoverb *il*+AGR to an auxiliary has been reanalyzed as a word form in Maltese.

- (30) a. Pawlu *ghand*-u ktieb.  
 Pawlu at-GEN.3MS book  
 ‘Pawlu has a book.’  
 b. Pawlu *kel*-l-u ktieb.  
 Pawlu was-to-GEN.3MS book  
 ‘Pawlu had a book.’

The incorporated form *kell*+AGR (< *kien il*+AGR) is now in an allomorphic relationship with the nonincorporated form *ghand*+AGR, conditioned by tense. Both *ghand*+AGR and *kell*+AGR display diagnostics of transitivity (see Comrie 1981, 1991, Borg and Azzopardi-Alexander 1997, Stassen 2009, Camilleri 2019). However, Camilleri (2019) points out that *il*+AGR is still used in contemporary Maltese as an auxiliary in its own right, marking the continuous perfect construction, shown in (31a). She reports this use in Syrian as well, as shown in (31b). But in Maltese, *il*+AGR in its perfect usage may not cliticize to an auxiliary as it does obligatorily in its possessive use. In Syrian, on the other hand, enclisis of *il*+AGR to *kān* is optional in both its perfect use, shown in (31b), and its possessive use, shown in (29a).

- (31) a. *Maltese*  
 Kien-et il-ha / \*kel-l-ha snin twal t-ghix hemm.  
 be.PFV-3FS have-GEN.3FS / \*be.PFV-have-GEN.3FS years long 3FS-live there  
 ‘She had lived there for many years.’  
 (Camilleri 2019:702, (51))  
 b. *Syrian*  
 Kān il-u / kan-l-u / %kal-l-u jahr  
 be.PFV have-GEN.3FS / be.PFV-have-GEN.3FS / be.PFV-have-GEN.3FS month  
 musāfir.  
 traveling  
 ‘He had been traveling for a month.’  
 (Camilleri 2019:701, (50))

In Maltese, *il*+AGR incorporates into the auxiliary only when it expresses possession, not when it expresses the continuous perfect (Camilleri glosses both as ‘have’ and draws parallels to the English use of *have* to mark the perfect). Camilleri concludes that the perfect use of *il*+AGR developed before the possessive use became obligatorily subject to incorporation into the auxiliary *kien*. If it had developed later, the perfect use would also obligatorily encliticize to *kien* in the nonpresent. Yet the perfect use has in common with the possessive use that neither admits an uninflected prepositional use. In both cases, *il* is obligatorily inflected and the DP indexed by the inflection occurs as syntactic subject. This means that the prepositional possessive use of *la-* had developed into the pseudoverb *il*+AGR before its use as a marker of the continuous perfect developed, which in turn preceded the development of the incorporation structure for expressing possession in the nonpresent. If this diachronic trajectory is representative, then transitive verbs of possession of the form Aux+P are not in the first instance derived by preposition incorporation; rather, they are derived by reanalysis of a preposition as a verb, that is, of dependent marking as head marking. Incorporation of this new head into a higher functional head might follow, but is not essential to the derivation of a transitive verb of possession.

Then, the Maltese verb *kell*+AGR does not strictly speaking contain the preposition *l-*; rather, it contains the verb *l-*, together with the morpheme *kel* (< *kien*) that expresses tense. In light of this, such languages do not offer any particular impetus to analyze a verb like English *have* as consisting of abstract Aux and P. An analysis of *have* as a nonalternating head marker of the possession relation in Appl<sup>0</sup> is compatible with the analysis of the syntax and morphological marking of possession fleshed out above. *Have* differs from Syrian *ʕand*+AGR in being morphologically compatible with tense, and so does not require auxiliary support. This difference is fundamentally morphological, not syntactic. The idea that *have* is a spell-out of Aux+P is not supported by mere analogy to Coptic or Maltese.

#### 4 Conclusion

This article has presented an extension of Boneh and Sichel’s (2010) analysis of prepositions in the expression of possession in Levantine Arabic that captures the pseudoverbal use of the same prepositions. It characterizes the syntactic relationship between the two constructions as dependent vs. head marking of possession. Concretely, Syrian Arabic marks either the possessor in Spec,-AppIP or the possession relation in Appl<sup>0</sup>. What is revealing about Arabic is that the marker is the same: a class of prepositions mark possession in Arabic, and the peculiarities of their use (that *la-* marks inalienable possession, *maʕ* possession under close physical contact, etc.) apply to their use both as dependent and as head markers. According to this analysis, head vs. dependent marking is a crosslinguistic parameter for the expression of possession, whose value is not fixed in Syrian Arabic (both are equally possible).

The parametric point of variation at issue here is usually framed in terms of preposition incorporation. I have claimed that to the extent that preposition incorporation is found in the syntax of possession, as in for example Coptic and Maltese Arabic, it is preceded by a reanalysis of the preposition as a verb, as I have described here for Syrian Arabic. This reanalysis step exemplifies a major type of diachronic change as described by Roberts and Rousson (2003). This

“pseudo” verb may incorporate into a higher functional head, but incorporation is not essential to its construal as a verb.

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