Object agreement in Lycian[*]

1 Introduction

The final segment of Lycian preterite verbs alternates between an oral and a nasalized vowel (the latter occur in boldface throughout; '⩽' marks enclitic adjunction):[1]

(1) *Oral Vowel*
unuwẽmi⩽ti prñnawat**e** purihimrbbeseh tideimi hrppi: ladi se tideime.
'Unuwemi, son of Purihimrbbese, built (it) for his wife and children.'   TL 62 (Isinda)

(2) *Nasalized Vowel*
ebẽññẽ: prñnawã: m⩽e⩽ti: prñnawat**ẽ**: mizretije: murãzah: tuhes: mluhidaza: surezi hrppi atli: ehbi: se ladi: se tideime: ehbije: s⩽**ed**⩽ad**ẽ**: atli: hrzzẽ [i]spazijẽ:
'This mausoleum Mizretije the Syran *mluhidaza* son of Murãza built for himself and his wife and his children. He made it for himself, the upper bench.'   TL 84.1–2 (Sura)

In example (1), the final segment of the verb *prñnawate* 'built' is oral. In (2), we have two nasalized preterites: *prñnawatẽ* 'built' and *adẽ* 'made.'

Garrett (1991) argues that Lycian nasalization is object agreement.[2] Building on the work of Imbert (1898: 27), he proposes that the phenomenon is conditioned by the following generalization:

[1] The Lycian writing system only has distinct graphemes for non-high nasalized vowels, so we can only witness nasalization when the verb ends in a non-high vowel. Preterite verbs end in non-high vowels, while present verbs (and imperatives) end in high vowels. Thus one can easily take away the impression that nasalization was in fact restricted to the preterite. As there is no direct evidence for such a restriction, I assume that object agreement characterized both preterite and non-preterite forms. This assumption has no impact on the argument, however.

[2] I too use the term *object agreement*; it could also be classified as differential object marking (DOM), however. See, e.g., Bossong (1983–1984, 1985, 1991), Aissen (2003),

(3)   *The Garrett-Imbert Rule*
       The nasalised preterite ending marks verbs with non-lexical (i.e., clitic or null) objects.[3]

This analysis readily captures examples such as (2) above. The objects of the verbs, namely *ebẽñnẽ prñnawã* 'this mausoleum' and *hrzzẽ [i]spazijẽ* 'upper bench' are both dislocated and cross-referenced by a resumptive clitic pronoun (*e* and *ed*, respectively). On Garrett's analysis, it is the presence of these clitic pronouns that triggers object agreement.

While this analysis accounts for examples with dislocated noun phrases, it runs into difficulties with exceptions such as the following (example 1 from above is repeated here for convenience):

(4)   *Exceptions to the Garrett-Imbert Rule*
a.   unuwẽmi≠ti prñnawate purihimrbbeseh tideimi hrppi: ladi se tideime.
       'Unuwemi, son of Purihimrbbese, built (it) for his wife and children.'   TL 62 (Isinda)

b.   upazi(j)≠ẽne: prñnawate hrppi: prñnezi: ehbi.
       'Upazi built this for his household.'   TL 31.1–2 (Kadyanda)

c.   se pijetẽ: hrzzi: ñtatã: ladi: ehbi: se mñneteidehe esedẽñnewi) se pijetẽ: ẽtri: ñtatã: prñnezi: atlahi:
       'And he gave the upper sarcophagus to his wife and the collateral descendants of Mñneteide. And he gave the lower sarcophagus to his own household.'   TL 36.5–6 (Xanthos)

In the first two examples, object agreement is predicted to occur but does not: in (4a), we expect nasalization because the verb lacks a surface object, while in (4b) the accusative clitic pronoun *ẽne* should trigger the nasalized ending. In example (4c), by contrast, object agreement is predicted not to occur: there are two tokens of the verb *pijetẽ*, the direct object of both of which is a full (non-dislocated) noun phrase, namely *hrzzi ñtatã* 'the upper sarcophagus' and *ẽtri ñtatã* 'the lower sarcophagus.'

I agree with Garrett (1991) that the nasal ending is a form of object agreement.[4] I argue, however, that the presence of the nasal morpheme

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     [3] I presume that this rule was meant to be both necessary and sufficient for nasalization.

is conditioned by the semantic properties of direct objects, and not their syntactic or lexical status. In particular, nasalization is triggered by uniqueness. Expressions, such as singular noun phrases, that refer to just one entity (relative to the context) trigger object agreement. So in example (4c), the noun phrases *hrzzi ñtatã* 'the upper sarcophagus' and *ẽtri ñtatã* 'the lower sarcophagus' both trigger object agreement because their referents are unique: there is one upper sarcophagus, and one lower sarchophagus. Section 2 provides further background on uniqueness and how it is extended to mass noun phrases and plurals.

Indefinite and demonstrative descriptions do not refer to unique entities in the local discourse context and therefore do not trigger object agreement. Indefinite descriptions can be satisfied by any entity in the discourse context that satisfies the description of the noun. Demonstratives are often said to be distinguished from definite descriptions and pronouns by cognitive salience: the entities referred to with demonstrative descriptions need to be salient or accompanied by additional information that makes them salient (Roberts 2002, Hawthorne and Manley 2015: 207–210). While demonstrative descriptions may thus end up with a unique referent, they do not presuppose uniqueness (Lyons 1999: 17, 21). In fact, they are typically used in contexts where there is a contrast between multiple entities that satisfy the description of the noun (Hawkins 1978).[5]

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[4] It is well known that object agreement and clitic doubling can be difficult to distinguish (Fuß 2005: 130–139, Preminger 2009, Kramer 2012, 2014). I take nasalized verbs in Lycian as an example of the former for three reasons. First, there is no clitic pronoun in the language that consists solely of the feature [+nasal]. Second, nasalization does not exhibit gender or number agreement with the object of the verb (as we would expect from a real pronoun). Third, nasalized verbs co-occur with pronouns, as in example (2) above; in clitic-doubling constructions, clitics typically double full noun phrases, not pronouns. Nasalization is therefore an agreement morpheme. In contrast to Garrett (1991), I do not use the term *clitic doubling* to describe examples such as (2). These are cases of clitic left-dislocation (CLLD), according to which a left-dislocated phrase is resumed by a pronoun (Samuels 2009). It is not entirely clear if Lycian has a clitic doubling construction of the sort found in the Balkans (on which, see, e.g., Kallulli and Tasmowski 2008), that is, where the doubled noun phrase is not dislocated and the doubling element is a clitic and not the nasalization affix. Example (12b) above is possibly one such case. Sideltsev (2011a, 2011b) argues that Hittite has clitic doubling.

[5] It is commonly said that object agreement in various languages is conditioned by "definiteness." An explicit definition of this notoriously complex semantic phenomenon (or perhaps phenomena) is usually not offered, however. And indeed in many cases object agreement appears to be conditioned by factors that intersect or overlap with definiteness, but are not definiteness per se (Comrie 1989: 219, Croft 1990: 166–175, Lyons 1999: 49, 207–212). In Lycian, definiteness cannot be the conditioning factor of object agreement: however one defines this property, it will typically include demon-

As object agreement is not found in any other (attested) Anatolian language, and is otherwise unknown in archaic Indo-European, the question arises as to why it developed only in Lycian. While the paltry state of the data do not yet permit a definitive answer to this question, I suggest that verb-initial order was crucial to the development of object agreement. Furthermore, I argue that the heart of the change is the loss of the anaphoricity of the pronoun *ʑom.

The paper is organized as follows. Section 2 provides background on the semantic concepts of uniqueness and totality, which lays the foundation for sections 3 and 4. The former demonstrates that definite noun phrases, proper names, and anaphoric/cataphoric pronouns all trigger object agreement. The latter in turn shows that indefinite noun phrases (both specific and nonspecific) and demonstrative descriptions do not trigger object agreement. Section 5 argues that object agreement in Lycian is a main-clause phenomenon, and section 6 closes out the synchronic discussion with some problematic data. Section 7 then takes up the diachrony of Lycian object agreement. Section 8 offers concluding remarks and prospects for further research.

2 Uniqueness and Totality

This section offers background on the semantic properties of uniqueness and totality.[6] In the context of noun phrases and determiner phrases, uniqueness means that there is just one entity that satisfies the description of the noun phrase (Lyons 1999: 8, Kadmon 2001: 79–80). Many researchers have argued that uniqueness is the essential property of the definite determiner *the* in English (Hawkins 1991, Birner and Ward 1994, Abbott 1999, Kadmon 2001, Abbott 2008). Consider the following example (from Lyons 1999: 8):

(5)   Mary's gone for a spin in the car she just bought.

On the uniqueness analysis of *the*, the definite determiner requires[7] that there be only one[8] car in the context that satisfies the description of

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stratives (Lyons 1999: 21). And as witnessed above by the examples in (17) below, demonstrative descriptions in Lycian do not trigger object agreement.

[6] The reader should be aware that there is an overwhelming amount of literature on definiteness and its linguistic realization (for overview articles, see Heim 1991, 2011). I have only presented here the essential aspects of this phenomenon that are necessary for understanding the analysis.

[7] I say *requires* here, because I interpret uniqueness with *the* as a presupposition, that is, as a requirement on the use of the word. This view has no impact on my analysis, however.

the relative clause *she just bought*. With indefinite expressions (such as *a book*), there is no requirement of unique denotation: it need only be the case there is at least one entity that satisfies the description of the noun phrase. As with the most of the world's languages, Lycian has no definite determiner, so it is context alone that will tell us whether a translation into English with *the* is appropriate or not. On my analysis, if a noun phrase is rendered in English with *the*, it should trigger object agreement in Lycian.

With mass nouns and plural definite descriptions, uniqueness refers to a maximality or totality of the set denoted by the noun phrase (Lyons 1999: 11). In the following example, *shampoo* has a mass reading (adapted from Lyons 1999: 10, ex. 30b):

(6)   *Mass Noun*
       I can't find the shampoo I put in the bathroom this morning.

What the speaker cannot find is the total amount of shampoo that he put in the bathroom. With plural nouns, *the* appears to encode universal quantification (from Lyons 1999: 11, example 38):

(7)   *Plural Definite Description*
a.   I've washed the dishes.
b.   I've washed all the dishes.

The intuition is that both of these sentences are false in a context with unwashed dishes (Lyons 1999: 11).

As Lyons (1999: 12) notes, uniqueness and totality are the same phenomenon at heart: uniqueness is simply totality when the number of objects satisfying the description of the noun is only one (cf. Hawkins 1978, Sharvy 1980: 623).[9] I accordingly use the term *uniqueness* in a non-standard way, to encompass both uniqueness and totality.

3 Object Agreement Triggers

This section presents evidence that definite descriptions, proper nouns, and anaphoric pronouns all trigger object agreement.

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[8] Uniqueness in first-order predicate logic is defined as follows: $\exists x.[P(x) \wedge \forall x[P(x) \rightarrow y = x]]$, which is read 'There is an x that is P and every y that is P is identical to x.' This goes back to Russell (1905) and does not work for mass nouns and count plurals (Sharvy 1980: 607).

[9] If we think in terms of sum individuals or groups (e.g., Link 1983), then uniqueness and totality both involve maximality. The difference between them comes down to the internal make-up of the group, i.e., whether it is singleton or not (see further Sharvy 1980).

3.1 Definite Descriptions

The following noun phrases have unique reference and therefore trigger object agreement:[10]

(8)   *Definite Descriptions*

a.   se pijetẽ: **hrzzi**: **ñtatã**: ladi: ehbi: se mñneteidehe esedẽñnewi) se pijetẽ: **ẽtri**: **ñtatã**: prñnezi: atlahi:
       'And he gave **the upper sarcophagus** to his wife and the collateral descendants of Mñneteide. And he gave **the lower sarcophagus** to his own household.'   TL 36.5–6 (Xanthos)

b.   ebẽñnẽ: xupu: m≠e≠ti: prñnawatẽ: idamaxzza: uherijeh tideimi: hrppi ladi ehbi: se tideime: se≠i pijẽtẽ pijatu: miñti: **ẽtri**: **xupu**: sixli: aladehxxãne: se **hrzzi tupm̃me**: sixla:
       'This tomb, Idamaxzza, son of Uherije, built for his wife and children. And they gave as a gift to the mindis **the lower tomb** to be *alaha-* for a shekel and **the upper** for two shekels.'
                                                   TL 57.3–6 (Antiphellos)

c.   ebẽñnẽ: xupã: m≠ẽn≠adẽ: krehẽnube: s≠ẽ pijetẽ wazijeje se(j)≠ẽni: se pi[j]etẽ: miñti **ñtawãtã**
       'This tomb, Krehẽnube made. And he gave it to Wazije and his mother. And the local authority granted **(their) inclusion**[?].'
                                                     TL 52 (Sidek-Yayla)

Example (8a) has already been discussed: *hrzzi ñtatã* '(the) upper sarcophagus' and *ẽtri ñtatã* '(the) lower sarcophagus' refer to unique entities in the mausoleum introduced at the beginning of the inscription. Example (8b) follows the same pattern; it differs only in that a tomb (*xupu*) is being described. In example (8c), the meaning of *ñtawãtã* is not completely secure, but if we interpret it as 'inclusion,' it refers to that of Wazije and his mother. So uniqueness is satisfied.

Proper nouns are aligned with definite descriptions in that they are used as though they were absolutely unique (Lyons 1999: 21–22). They accordingly trigger object agreement:

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[10] My analysis would predict that TL 114 belong to this category, but given the difficulties of interpreting the text, it must remain unclassified: *esedeplẽmeje: me≠j≠adẽ: tesi: miñti awahai: xupa: ehbi: se≠i≠ne: epñ: puñtẽ me≠i: [a]wahi: tesi: aladahali -*).

(9)   *Personal Name*[11]

a.   se≠i≠pñ≠pudẽ: idãxre: maxah: **xahbu**: **xili**
'And afterwards Idãxre son of Maxa inscribed thereon (his) **grand-son Xili**.'   TL 78.5 (Tyssa)

b.   se≠ñne≠ñte≠pddẽ≠hadẽ: trm̃mile: pddẽnehm̃mis: **ijeru**: se≠**natrbbijẽmi**: se(j)≠arñna: asaxlazu: **erttimeli**:
'And he appointed for the Lycians **Ijera** and **Natrbbijemi** as deputies, and for Xanthos **Ertimmeli** as governor.' N320.2–5 (Xanthos)

c.   se≠ñn≠aitẽ: kumazu: mahãna: ebette: **eseimiju**: qñturahahñ: tideimi: se≠de: **eseimijaje**: xuwati≠ti:
'They made **Eseimija** son Qñturahahñ priest for these gods and the one who accompanies Eseimija.'   N320.9–11

In each example, the direct object of the verb is a personal name.

3.2 Anaphoric Pronouns

Pronouns prototypically refer back (or ahead) to entities that have been (or will be) named or described. As their reference is determined by their antecedents, it tends to be unique. In fact, Lyons (1999: 32) characterizes the content of a pronoun as a definite noun phrase minus its descriptive content.

The most prominent example of an anaphoric pronoun triggering object agreement comes from clitic left dislocation (CLLD), where the resumptive pronoun uniformly triggers object agreement:

(10) *Resumptive Pronoun with CLLD*

a.   **ebẽñnẽ**: **xupã**: m≠ẽn≠adẽ: krehẽnube: s≠ẽ pijetẽ wazijeje se(j)≠ẽni: se pi[j]etẽ: miñti ñtawãtã
'**This tomb**, Krehẽnube made. And he gave it to Wazije and his mother. And the local authority granted (their) inclusion[?].'
                                                        TL 52 (Sidek-Yayla)

b.   **ebẽñnẽ**: **prñnawã** m≠ẽ≠ti prñnawatẽ xisterija xzzbãzeh tideimi hrppi: ladi ehbi se tideime.
'**This mausoleum**, Xisterija, child of Xzzbãzeh, built it for his wife and children.'   TL 19 (Pinara)

c.   **ebẽñnẽ**: **prñnawã**: m≠ẽ≠ti prñnawatẽ: xluwãnimi: hrppi ladi: ehbi: se tideime ehbije: ẽnẽ periklehe: xñtawata.

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[11] See also N320.9-11 with Garrett (1991: 22).

'**This mausoleum**, Xluwãnimi built it for his wife and children under the rule of Perikles.'   TL 67 (Timiusa)

Examples of this type are robustly attested in Lycian. They tend to follow a stereotypical format, in which a left-dislocated demonstrative description (such as 'this tomb') is resumed with a pronoun (for more on CLLD, see Cinque 1990, Rizzi 1997). The resumptive pronoun is bound by this antecedent, to which it uniquely refers. It is crucial to appreciate that object agreement is triggered by the resumptive pronoun and not by the dislocated noun phrase. As we will see in section 4.2, non-dislocated demonstrative descriptions do not trigger object agreement.

With right dislocation of an NP (on which, see McCone 1979, and further Gonda 1959: 7–70, Krisch 1997, McCone 1997), the cataphoric pronoun also triggers object agreement:

(11) *Cataphoric Pronoun with Clitic Right Dislocation*
      ebẽñnẽ: prñnawã: m≠e≠ti: prñnawatẽ: mizretije: murãzah: tuhes: mluhidaza: surezi hrppi atli: ehbi: se ladi: se tideime: ehbije: s≠ed≠adẽ: atli: **hrzzẽ [i]spazijẽ**:
      'This mausoleum Mizretije the Syran *mluhidaza* son of Murãza built for himself and his wife and his children. He made it for himself, the upper bench.'   TL 84.1–2 (Sura)

The standard order is for accusative direct objects to precede datives. Here, however, the direct object follows the dative, as it has been dislocated to the right edge of the clause. The cataphoric pronoun *ed* is bound by the dislocated phrase, *hrzzẽ [i]spazijẽ*.

Non-resumptive anaphoric pronouns also trigger object agreement:

(12) *Non-Resumptive Pronouns*
a.   s≠e≠ije: ñta tãtẽ.
      'They interred **them** therein.'   TL 39.7 (Xanthos; cf. TL 42.4)

b.   s≠ed(e)≠de tuwetẽ: kumezija: tere tere trqqñti: pddãtahi:
      'And he established **them** as sacred precincts everywhere to the local storm god.'   TL 44b.51–52 (Xanthos)

c.   ebẽñnẽ: xupã: m≠ẽn≠adẽ: krehẽnube: s≠ẽ pijetẽ wazijeje se(j)≠ẽni: se pi[j]etẽ: miñti **ñtawãtã**
      'This tomb, Krehẽnube made. And he gave it to Wazije and his mother. And the local authority granted (their) **inclusion**[?].'
                                                TL 52 (Sidek-Yayla)

In example (12a), the pronoun *e* 'them' refers to the total number of people to be buried and triggers object agreement on *tãtẽ* '(they) interred.' In (12b), the pronoun *ed(e)* 'them' triggers object agreement on the verb *tuwetẽ* '(they) established.' In (12c), the pronoun *ẽ* triggers nasalization on the verb *pijetẽ* '(he) gave' in the first line of the inscription.

When the antecedent of an embedded relative clause is unique, object agreement on the matrix verb is triggered:

(13) *Embedded Clause with Unique Antecedent*
    se⸗i pijẽtẽ: **arawã: ehbijẽ: esi⸗ti:**
    'And they gave him **the freedom (of) what is his.**'

                                              N320.11–12 (Xanthos)

The antecedent of the relative pronoun, *arawã* 'freedom,' is an abstract noun. What has been granted is a particular freedom, namely the use without taxation of what belongs to the referent.

Headless embedded relative clauses can also trigger object agreement on the matrix verb (see further Garrett 1991: 20–21):

(14) *Headless Embedded Relative Clause*
a. ebẽññẽ: xupã: m⸗e⸗ti pr[ñ]nawatẽ: apññãtama hrppi: ladi: e[h]bi:
    se tideime: me⸗i⸗pñ: pudẽ: **ti ñte** xahba: [eh]bi: wazzije: kbatra
    'This tomb, Apññãtama built for his wife and son. Afterwards his grandchild, daughter of Wazzije, inscribed on it **what is inside.**'

                                              N320.22–23 (Xanthos)

b. se⸗wa(j)⸗aitẽ: kumaha: **ẽti sttali: ppuweti: km̃mẽ: ebehi:** xñtawataha:
    xbidẽñnaha: se⸗(A)rKKazumaha:
    'And they consecrated **what is engraved on this stele** to the king of Kaunus and ArKKazuma.'   TL 87 (Myra)

Despite the absence of the resumptive pronoun, object agreement is triggered because of the meaning of the relative clause. In both cases they refer to the totality of what is written, whether on the inside of the tomb in the case of (14a), or on the stele in (14b). This is the same property of totality that we observed for mass nouns with the definite determiner *the* above in section 2.[12]

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[12] The Greek version of (14b), N320G, has the following relative clause at lines 28–29: ὅσα ἐν τῆι στήληι ἐγγέγραπται. This relative clause is also headless and refers to the totality of what has been inscribed on the stele.

4 No Object Agreement

This section presents evidence that indefinite and demonstrative descriptions do not trigger object agreement.

4.1 Indefinite NPs

As Indefinite NPs do not refer to a single unique entity in the singular or a totality in the plural, they do not trigger object agreement:

(15)   *Left-Dislocated NP with No Resumptive Pronoun*
       kbi tike me≠i nipe ñtepi tãtu
       '**Anyone else**, let them not put in here.'

                                        TL 88.3 (Myra, see also 93.2)

Here the indefinite non-specific phrase *kbi tike* 'anyone else' is left-dislocated, but is not cross-referenced with a resumptive pronoun, as the resumptive pronoun only co-occurs with dislocated phrases that are definite (Garrett 1992: 208). This example illustrates an important distinction between CLLD and object agreement. Definiteness is a necessary but not sufficient condition on CLLD, which is to say that all dislocated phrases in the CLLD construction are definite, but mere definiteness does is not enough to trigger CLLD. By contrast, the semantic feature of uniqueness/inclusiveness is both a necessary and sufficient condition on object agreement.

Non-dislocated indefinite noun phrases also do not trigger object agreement:

(16)   *Indefinite NPs*
a.   me≠ñ[ne]: **t[a]mã**: axa:
       'I built **a house** for them.'   TL 44c.14–15 (Xanthos)

b.   se≠ti: teθθiweibi: ade mẽ: leθθi: **qlã**:
       'And Teθθiweibi likewise built himself **a (sacred) precinct** of
       Leto.'   TL 44b.60–61

While the interpretation of these examples is not entirely straightforward, the objects in both cases appear to be indefinite and specific. That is, there is a particular house and a particular sacred precinct that the author of the text has in mind.

4.2 Demonstrative Descriptions

Demonstrative descriptions typically refer to an entity in the spatio-temporal environment (Diessel 1999: 94–95). As their referents are usu-

ally established with the aid of supplemental information, they do not presuppose uniqueness and accordingly do not trigger object agreement:

(17) *Demonstrative Description*
a. [p]ajawa: manax[in]e: prñn[a]wate: **prñn[aw]ã: ebẽñnẽ.**
    'Pajawa Manaxine built **this mausoleum.**'

    TL 40a (= 40b) (Xanthos)

b. purihimeti≠ti: prñnawate: masasah: tideimi **χupã:: ebẽñnẽ** hrppi: atli: ehbi: se tideime: ehbije:
    'Purihimeti, the son of Masasa, built **this tomb** for himself and his sons.'   TL 99 (Limyra)

The object NPs in both examples refer to objects (a mausoleum and a tomb, respectively) in the spatial environment. It is this salience in the immediate environment that allows their referent to be determined. Crucially, reference is not calculated on the basis of the linguistic expression alone, that is, on the basis of the demonstrative determiner. This is what sets this class apart semantically from the definite descriptions in section 3.1. Why some funerary inscriptions are structured like (17) and others introduce the grave structure with CLLD is not yet clear.

We can include in this class the following once-problematic examples (from Garrett 1991: 19), where the pronoun *ẽne* is used deictically:[13]

(18)
a. upazi(j)≠ẽne: prñnawate hrppi: prñnezi: ehbi.
    'Upazi built **this** for his household.'   TL 31.1–2 (Kadyanda)

b. xñtlap≠ãne: prñnawate: perikleh: mahinaza: epñtibazah tideimi
    'Xñtlapa, mahinaza of Perikles, son of Epñtibazah built **this**.'

    TL 133 (Limyra)

c. [erb]bina(j)≠ẽne ubete   xruwata   ertẽmi   [xer]igah   tideimi se(j)≠upẽneh.
    'Erbinna, son of Xeriga and Upẽne, dedicated **this** as an offering to Artemis.'   N311 (Xanthos)

These examples all show the long form of the pronoun *ẽne*.[14] There is at least one potential example with the short form:

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[13] In line with these examples, I would restore *tuwe[te]* at TL 51, not *tuwe[tẽ]*.

[14] If this analysis is correct and clitic *ẽne* can in fact be used demonstratively, then it has repurcussions for our understanding of the development of the Anatolian deictic system. In particular, this means that it was not just the second person *ob(h)ó/í-* but also *é/óno-* and potentially *é/o-* that were used as first person demonstratives after the

(19) *Short deictic form?*

mexisttẽn≠ẽ: ep[i] tuwete: atli: ehbi: sxxulijah: tideimi: sa≠ladi: ehbi: merimawaj[e] petẽnẽneh: tideimi: se tideimi ehbi: sxxulije.
'Mexistte erected **this**[?] for himself, the child of Sxxulija, for his wife Merimawa, daughter of Petẽnẽneh, and for his child Sxxulija.'   TL 27 (Düwer)

It is also possible that the short form here is actually a haplologized version of the long form, i.e. *mexisttẽn≠ẽne > mexisttẽn≠ẽ.*

Garrett (1991: 19-20) offers a diachronic explanation for the failure of the object to trigger nasalization in examples (18): "at some stage of pre-Lycian, a sentence-initial word order Subject + Verb was at least fairly common. As in any archaic Indo-European language, the subject would have been optional and in most cases omitted; the verb would then have been sentence-initial and followed by any clitics. Such sentence-initial verbs followed by the accusative clitic *om > ẽ* were the original locus for the creation of the nasalized preterite. However, in sentences with an overt subject the Wackernagel's Law clitics would have followed the first word and not the verb." What we have above in (18) is then a synchronically unmotivated archaism that reflects the original distribution of the accusative non-neuter pronominal clitic.

But there is synchronic motivation for the examples in (18). It lies in the fact that the clitic pronoun is not being used anaphorically, but rather deictically, to refer to an object in the physical environment, just like example (17). They accordingly do not have an anaphoric reading 'it,' but rather a demonstrative reading 'this.' Given this meaning they pattern just like the noun phrases with *ebẽñẽ* above. We can contrast this behavior with the resumptive use of the clitic found with clitic left-dislocation structures like the following:

Further motivation for this analysis comes from the fact that Lycian grave inscriptions so often open with the clitic left-dislocation construction:

(20) **ebeija: [xr]uwata**: m≠e≠ije pijetẽ: wat[aprd]ata: xssadrapa: pa-[rz]a:
'**These votive offerings**, Wataprdata the Persian satrap gave them here.'   TL 40d.1 (Xanthos; Garrett 1992: 203)

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loss of *ko/i-*. See further Melchert (2009: 158), and Goedegebuure (2014) for demonstratives in Hittite.

Clitic left-dislocation here takes a discourse-new NP and makes it the topic of the sentence. It finds a very close parallel in the English construction that Prince (1997: 4) calls "simplifying dislocation":

(21) It's supposed to be such a great deal. The guy$_i$, when he came over and asked if I wanted a route, he$_i$ made it sound so great. Seven dollars a week for hardly any work. And then you find out the guy told you a bunch of lies.

Here left-dislocation dislocation of *the guy* is being used to introduce a new subject, as well as establish this referent as the topic around which the rest of the utterance is built. Lycian clitic left-dislocation serves the same purpose in the building inscriptions.

Before moving on, it is worth noting that the inability of demonstratives to trigger object agreement finds a parallel in the behavior of the Hebrew definiteness marker *et* (the examples are from Danon 2002; cf. Givón 1978):

(22) *Hebrew Definiteness Marker*
a. Dan kara **sefer**.
Dan read book
'Dan read **a book**.'

b. Dan kara **et ha-sefer**.
Dan read DEF the-book
'Dan read **the book**.'

(23) *Definiteness Marker and Demonstrative Determiner*
a. Dan kara et **ha-sefer ha-ze**
Dan read DEF the-book the-this
'Dan read **this book**.'

b. Dan kara **sefer ze**
Dan read book this
'Dan read **this book**.'

The definiteness marker *et* is licensed with noun phrases accompanied by the definite article *ha* and noun phrases in combination with a definite article and a demonstrative *ha-ze*, but not with noun phrases marked solely by a demonstrative *ze*. This is precisely the pattern that we would have expected from Lycian if it had had a definite article. I leave for future research the question of what lies behind this similarity in the two languages and whether it has anything to do with similarities in the diachrony of *et* and the nasal feature on Lycian verbs (see, e.g., Wilmsen

2013, who claims that *et* and its cognate originate in oblique personal pronouns).

4.3 Null Objects

The following verbs are transitive, but lack an overt direct object:[15]

(24) *Object Deletion*
a.   tebursseli: prñnawat**e**: lusñ[tr]e: ẽti wazisse:
       'Tebursseli built (a tomb) under the -ship of Lusñtre.'

                                                        TL 104a (Limyra)

b.   unuwẽmi≠ti prñnawat**e** purihimrbbeseh tideimi hrppi: ladi se tideime.
       'Unuwemi, son of Purihimrbbese, built (a tomb) for his wife and children.'   TL 62 (Isinda)

c.   pizzi≠ti: prñnawat**e**: ddepñneweh: tideimi: hrppi ladi: ehbi: se tideime
       'Pizzi built (this chamber) for his son and and children.'

                                                        TL 98 (Limyra)

One might object that these verbs are simply intransitive and for this reason would not be expected to trigger object agreement, but this line of reasoning collides with the semantic interpretation of the inscriptions, which presumably refers to some object in the context. I presume that these examples all have the reading 'built this tomb,' that is, the tomb (or other funerary structure) that has been built is present in the physical environment. On this interpretation, I would classify these examples with the demonstrative descriptions in section 4.2. Alternatively, if there is no object in the context, then the three examples above would simply refer to indefinite objects, i.e., 'a tomb' or 'a chamber.' On either interpretation, object agreement is predicted not to occur.

There is a small class of examples with a nasal vowel before the reflexive marker *ti* but no nasalization on the verb. While others have taken this as the accusative singular clitic *-ẽ*, I tentatively suggest that the nominative singular of these names ends in a nasal vowel:

(25) *Clause-initial PNs ending in a nasal vowel*
a.   °eburehi(j)ẽ≠ ti: prñ[n]awate ..°i..°l.°[h tide]imi .....°addeh tuhes hrpp(i)≠ẽni: ehbi: se tuhe ehbije [me≠i(j)≠a]di ti[k]e tihe [z]uṁmẽ m≠ẽne itlehi: qañt[i] trṁmili: h[u]we[dri]

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[15] See also TL 104b, 116, 127, 131.

'PN son of PN, nephew of PN, built (this tomb) for his mother and his nephews. If anyone does any damage to it, all the Lycian allies will destroy him.' TL 95 (Myra)

b. prddewã≠ti: prñnawa[te]: zãnaza: serm̃maij°... neru°......... °ñne: ...°mãte
'Prddewã the *zãnaza* son of S. built (this tomb)...'
TL 126 (Limyra)

These names would then be deadjectival formations of the *Cato, Catonis* type ('the sly one' from *catus* 'sly, sharp'; see further Bader 1997), as we have in *Xudalijẽ* 'the nimble one' beside *Xudali-*, and *Mutlẽi* 'the mighty one' beside Luvian *muwatalla/i-* 'mighty' (Melchert 2013).

5 Object Agreement is a Main-Clause Phenomenon

I am aware of no examples of object agreement in a subordinate clause (cf. Miyagawa 2012 on allocutive reduplication of Basque, which is limited to main clauses). In the following examples of subordinate clauses, we would expect nasalization:

(26) *Adjoined Clause with ẽke 'when'*
a. ẽke: **trm̃misñ**: xssahrapazate: pigesere: katamlah: tideimi:
'When Pigesere son of Katamla was satrap of **Lycia** ...'

b. tebursseli: prñnawate: gasabala: ẽke: ese: perikle: tebete: **arttum̃mparã**: se m̃parahe: **telẽzijẽ**
'Tebursseli the treasurer[?] built (this tomb) when Perikles conquered **Arttum̃mpara** and (his) **military fort** in Imbros.'
TL104b (Limyra)

(27) *Adjoined Clause with teri 'when'*
a. ebẽñnẽ prñnawã: m≠ẽ≠ti≠prñnawatẽ: ddapssm̃ma: padrm̃mah tid[eimi] hrppi prñnezi: ehbi: urebillaha: **trm̃misñ**: xñtewete ter[i] arttum̃para:
'Ddapssm̃ma son of Padrm̃mah built this mausoleum for his household Urebillaha when Arttum̃para ruled Lycia.'
TL 11.1–2 (Pinara)

b. **trm̃misñ**: ñtepi: xñtawata: apptte teri:
'When (Alexander) took **Lycia** into his rule'
TL 29.9 (Samuels 2009: 282, ex. 9)

As personal names are unique, these examples should pattern like those in example (9) above. The verb in a relative clause also never undergoes object agreement:

(28) *Relative Clauses*

a.   ebẽññẽ: xup[ã m≠]ẽne: prññawatẽ xlasitini: magabatah: tideimi **xali**: qehññite≠ti: **ebẽññẽ**: ẽ[nẽ]: arppaxuhe: xñt[aw]ata
'This tomb, Xlasitini the son of Magabata built, who ?-ed **this precinct** under the rule of Arpaxxu.'   N310

b.   ebeli: me sijẽni: xssẽñzija: xñtlapah: tideimi: mutleh: prññezijehi: prññawate≠ti: **ñtatã**: atli: ehbi:
'Here lies Xssẽñzija son Xñtlapa of the household Mutlẽni, who built the **burial chamber** for himself.'   TL 150.1–4 (Rhodiapolis)

The object of the verb in (28a) is a demonstrative description and is not predicted to trigger object agreement in any syntactic environment. In (28b), by contrast, the object of the verb appears to have a definite reading, and therefore should pattern like the examples in (8) above and trigger object agreement. I attribute the absence of object agreement to the syntactic environment.

6 Problematic Data

A handful of examples present challenges that do not allow them to be readily classified into the above categories. It is not entirely clear what sort of challenges these examples pose because in some cases the texts are not well understood or the construction is too poorly attested:

(29)   me≠hñti≠tubedẽ: arus: se(j)≠epewẽtlṁmẽi: arññai: ṁmaitẽ: kumezijẽ: θθẽ: xñtawati: xbidẽñni: se(j)≠arKKazuma: xñtawati:
'The citizenry and perioikoi of Xanthos resolved. They constructed (the?) sacred altar to the lord of Kaunos and to king ArKKazuma.'   N320.5–9

It appears that *hñti≠tubedẽ* has a meaning along the lines of 'resolved' or 'agreed.' The first question is why the final segment of *tubedẽ* is nasalized. It seems to be a cataphoric pronoun bound by the subsequent clause that describes the content of what was resolved. The problem here is that the following clause is not embedded; so we do not have a structure comparable to that of embedded relative clauses. Furthermore, the verb of this clause *ṁmaitẽ* '(they) constructed' is also in the preterite (and also nasalized, a feature that I will come back to shortly). The past

tense here is hard to reconcile with a verb meaning 'resolve,' as it is future events that are resolved. It seems easier to interpret both sentences as root clauses, the first of which describes the event of the resolution, and the second that of the building. But on this interpretation there is no reason why *tubedẽ* should be nasalized.

The second issue is the nasalization of *m̃maitẽ* '(they) constructed,' the object of which is *kumezijẽ θθẽ* 'sacred altar.' In the Greek version of the inscription (N320.7), we have just the bare noun βωμόν 'altar.' Prima facie the absence of the definite determiner in the Greek suggests that *kumezijẽ θθẽ* should be read 'a sacred altar.' If we interpret this clause as the object of the preceding clause, then a translation '(they) resolved that they (would) construct a sacred altar...' But as discussed in the previous paragraph it seems that this clause is not embedded. If we interpret it as a root clause, then it would be a past-tense description of their actions: 'They constructed the sacred altar to the lord of Kaunos and to king ArKKazuma'.

In the final example, a noun phrase with a demonstrative triggers nasalization:

(30) se≠i agã: ijase: **hrm̃mã: ebẽ:**
    'And I made **this temenos** in the *ijas.*'   TL 149.13 (Rhodiapolis)

The meaning of *ijase* is unclear, so the meaning of the sentence is not entirely understood. What does seem reasonably secure, however, is that the nasalization on the verb *agã* '(I) did' is due to the phrase *hrm̃mã ebẽ* 'this temenos.' On my account, this phrase should be anaphoric (that is, a unique *hrm̃mã* should already be established in the context), as it would have the necessary semantics to trigger object agreement. If it is deictic, then it should not trigger object agreement. The context is still too poorly understood to decide either way. Once the texts are better understood, examples such as this may indicate the necessity for an analysis that incorporates information structure (cf. Dalrymple and Nikolaeva 2011).

7 Diachrony

To sum up my synchronic argument, I have argued that object agreement in Lycian is conditioned by the semantic feature of uniqueness and only occurs in main clauses. The question that I address in this section is how object agreement originated. While the diachrony of this construction is difficult to establish with certainty on account of the paucity of data, at least two things are clear. The first is that this is an inner-Lycian

development: no other attested Anatolian language exhibits object agreement. Indeed, it is unknown in archaic Indo-European generally (although see Griffith 2011 on Old Irish; within modern Indo-European languages, clitic doubling is an areal feature of the Balkan languages). Second, nasalized preterites result from object incorporation, specifically from the incorporation of the accusative singular common gender pronoun *=om after an (originally middle) verbal ending *-to, i.e. *t(o)=om > Lyc. -tẽ, as argued by Garrett (1991: 17), following a suggestion of Craig Melchert. Similar developments are known from Bantu (Bresnan and Mchombo 1987) and Hungarian (Coppock and Wechsler 2010). The change from a pronominal clitic *=om to a nasal morpheme thus follows the typical grammaticalization trajectory of clitic > affix (Spencer and Luís 2012: 31–32).

As a pronoun, *=om would have been both anaphoric and definite. On my analysis, the nasalization morpheme that develops from the pronoun has the second property, but not the first. As far as its surface distribution in the clause is concerned, I presume that *=om as a second-position clitic was characterized by "host promiscuity" (see Goldstein 2014, 2015). The nasalization affix is, by contrast, restricted to verbs. So the development of object agreement in Lycian comes down to two changes: the loss of anaphoricity of the original pronoun and the loss of host promiscuity. I suggest that these losses are at least in part a consequence of the shift to verb-initial word order.[16]

Wackernagel's Law is a generalization about the surface distribution of enclitics in archaic Indo-European (Wackernagel 1892). In short, the host of an enclitic is required to occupy the left edge of a syntactic constituent (additionally, prosodic constituency can also play a role, as argued by Goldstein 2015 for Greek). So if we assume verb-final word order for Common Anatolian, the host of an object pronoun clitic would have been the first (prosodic?) word of the clause, regardless of its category (in the interest of a simplified exposition I do not offer more precise syntactic information about the constituents involved; I use the category label D for pronouns without taking a stand on the question of whether pronominal clitics are heads or phrases in Lycian):

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[16] It is also worth considering an exogenous factor, namely contact with Aramaic, which also exhibits differential object marking (see Folmer 1995). Pursuing this hypothesis further would require a detailed investigation of the Aramaic data, which is beyond the scope of this study.

(31) *Host promiscuity*
a.   NP$_{Subj}$≠D$_{Obj}$ V
b.   ADJ≠D$_{Obj}$ NP$_{Subj}$ V
c.   ADV≠D$_{Obj}$ NP$_{Subj}$ V

This is the "host promiscuity" that characterizes Wackernagel clitics. The shift to verb- initial word order[17] would have altered the surface distribution of second-position clitics such that they were predominantly hosted by the verb:

(32) V≠D$_{Obj}$ NP$_{Subj}$

Given the presumed frequency of this pattern and the close semantic and syntactic relationship between the verb and the object, this surface pattern could have been reanalyzed as requiring the verb to host the object pronominal clitic. This loss of host-promiscuity was not an across-the-board change, but rather one that specifically targeted the object pronominal clitic. As our texts amply demonstrate, Lycian still has host-promiscuous second-position pronominal clitics. I would suggest that the change is restricted to *≠om because there was a stage of clitic doubling that involved exclusively this pronoun. Clitic doubling refers to a construction such as the following in which an object pronominal clitic occurs with a full nominal object:

(33) *Clitic doubling*
      V≠D$_{Obj}$ NP$_{Subj}$ NP$_{Obj}$

Typically object clitics function as arguments of the verb and accordingly block the presence of full objects. Here, however, the clitic pronoun coreferences the full object, and is therefore not anaphoric. Evidence for this stage perhaps comes from the following example, in which nasalization is blocked by the fact that *ẽ* is hosted by the verb:

(34) [pijet]e≠ñn≠ẽ pixe[s]ere kat[amla]h arñna se tlawa se p[inale] se
      xadawãti
      'Pixsere (son) of Katamla gave **it** to Xanthos and Tlos and Pinara
      and Kadyanda.'   TL 45.1–3 (Xanthos)

On the assumption that the text is sound (and that ≠ñn≠ẽ is not an error for *ẽne*), *ñn* is a dative pronominal clitic and *ẽ* the common gender ac-

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cusative singular. As *ẽ* has unique reference, we would expect [*pijet*]*e* to exhibit nasalization. Here I would argue that nasalization does not occur because the verb is the host of the clitic. If Lycian nasalization is the continuation of a clitic doubling construction such as (33), what we have in (34) is a holdover from this stage. In the clitic-doubling construction, a clitic on the verb would have cross-referenced a full noun phrase. It would have never cross-referenced another clitic, as both would have been hosted by the verb. Once the reduction to nasalization took place, then it became possible for a pronominal clitic and the nasal morpheme to co-occur, as the latter was no longer a clitic. A verb could evidently not both host a pronominal clitic and have a nasalized ending. One wonders in fact if clause-initial *me* developed as a reponse to this constraint: it provides a host for second-position clitics that is not the verb.

To summarize, the historical steps would be as follows: loss of host promiscuity > rise of clitic doubling > Lycian nasalization construction. Even if this is more or less an accurate description of the historical process, there remains of course the big question of how (33) came to be a licit structure.[18] One possibility is that this is the product of phonetic reduction. With the loss of the nasal consonant on *=om*, its gender and case features would have been less clear (cf. Garrett 1991: 26). Loss of host promiscuity may have also contributed to the latter. That is, the position of the pronoun after the verb may have come to indicate to its object status, as opposed to its form. With the loss of these two features, that leaves the feature of number. On my analysis, this is essentially the feature that lives on in nasalized verb forms.

8 Conclusion and Outlook

I have argued that the distribution of the Lycian oral and nasal preterite endings is conditioned not by the status of the object, but rather by the semantics of the object NP, and specifically by the property of uniqueness. It is this feature that is responsible for the following distribution of the nasalized preterite:

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[18] One possibility is that clitic doubling arose from a CLLD construction (cf. Marcantonio 1985, Bresnan and Mchombo 1987: 777, Dalrymple and Nikolaeva 2011: 207–215), i.e. NP_{Obj} V=*om* NP_{Subj}. The NP_{Obj} would be preposed and resumed by the *=om*. This pattern could either have been reanalyzed as not involving left-dislocation/preposing or simply extended to contexts without a preposed object. It is not clear how old CLLD within Lycian is, however.

Nasal Vowel	Oral Vowel
Anaphoric Pronoun	Indefinite NPs
Proper Noun	Demonstrative Descriptions
Definite NP	
Embedded Determinate Relative Clause	
Complement Clause?	

Table 1: Oral-Nasal Distribution

How exactly Lycian acquired object agreement remains an open question, but verb-initial syntax appears to have played a crucial role.

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