Agreement shift in embedded reports[*]

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Abstract. The article discusses person agreement in embedded reports in Aqusha Dargwa (Nakh-Daghestanian). In contrast to root clauses, which have obligatory person agreement matching the features of the controller, finite embedded reports allow pronoun–agreement mismatches, such as third person agreement in the presence of the 1SG subject or 1SG agreement in the presence of a third person subject. I argue that person agreement in Aqusha can function in two different modes: plain φ-feature mode and logophoric mode, depending on whether person morphology responds to usual morphological person features or to discourse-related logophoric features. Concentrating on the logophoric mode, I propose that the left periphery of finite embedded reports contains a logophoric complementizer that carries the discourse feature [LOG] and a null pronominal in its specifier specified as [ATTITUDE HOLDER].

Keywords: attitude reports, personal pronouns, person agreement, Nakh-Daghestanian, Dargwa

1 Introduction

It is now well established that in many languages, contrary to Kaplan's (1989) initial theory, that the denotations of indexical pronouns are not necessarily fixed by the context of the actual speech act, but can be changed in syntax, a phenomenon known as "shifted indexicals" or "Kaplanian monsters" (Schlenker 2003, Anand and Nevins 2004; see Deal 2019 for an overview). In such languages, 1.P (1st person) pronouns, when embedded under a propositional predicate of speech or thought, may denote not

the speaker producing the actual utterance (*current speaker*), but the speaker of the reported speech act (*original speaker*, *reporter*, or *attitude holder*), as shown in example (1).

(1) Zazaki (Iranian; Anand and Nevins 2004)

$H\varepsilon seni_j$ $(mi_k\text{-}ra)$ *va*   *kε* $\varepsilon z_{j/k}$ *dεwleti-a*

Hesen.OBL   (I.OBL-to)   said   that   I   rich.be-PRS

'Hesen said (to me) that {I am, Hesen is} rich.'[1]

In this example, the 1.P pronoun in the embedded clause may be interpreted as referring either to the current speaker (*unshifted reading*) or to the attitude holder *Hesen*, expressed as the subject of the matrix clause (*shifted reading*). Indexical shift has been identified in a number of different languages, such as Uyghur, Zazaki, Amharic, Tamil, and many others (Anand and Nevins 2004, Deal 2019, Shklovsky and Sudo 2014, Schlenker 2003, Sundaresan 2011).

Along with personal pronouns, special behavior in embedded reports has also been documented for person agreement markers on the verb. In particular, person agreement is attested to demonstrate mismatches in person features with its controller, as was first described in Tamil (Sundaresan 2011), where 3.P long-distance anaphors bound by the matrix subject trigger obligatory 1.P agreement, the phenomenon dubbed "monstrous agreement," illustrated in (2).

(2) Tamil (Dravidian; Sundaresan 2011)

raman$_i$ [$_{CP}$ *taan$_{\{i,\ *j\}}$*   *jey-pp-{een/*aan}-nnu*] *so-nn-aan*

Raman-NOM   self-NOM   win-FUT-1SG/*3M.SG-that   say-PST-3M.SG

'Raman$_i$ said [$_{CP}$ that he$_{\{i,\ *j\}}$ would win].'

In this example, the embedded subject *taan* is a 3SG anaphor, but the embedded verb
obligatorily bears the 1SG marker -*een*, demonstrating that mismatches are possible
between the pronoun and verbal agreement in this environment.

It has been repeatedly demonstrated that in languages with indexical shift, 1.P
forms do not necessarily represent pieces of direct speech (Anand and Nevins 2004,
Shklovsky and Sudo 2014, Schlenker 2003, Sundaresan 2011). However, despite the
growing body of formal and typological literature reporting indexical shift from
different languages of the world, there is still no consensus about the formal aspects of
syntactic derivation of indexical shift. Pronoun–agreement mismatches are an even
less-studied phenomenon and have received only scarce attention. Shklovsky and
Sudo (2014) bring it up in connection with indexical shift but leave a detailed study
for future work; Spronck and Nikitina (2019) mention the phenomenon in a
typological context. Sundaresan (2011) and Messick (2016, to appear) propose
derivations of less trivial examples like (2).

The subject of this article is person agreement in embedded reports in Aqusha
Dargwa, a language of the Nakh-Daghestanian family.[2] Like Zazaki, Aqusha displays
indexical shift in attitude reports, that is, personal pronouns are sensitive to the context
and may receive a shifted interpretation. The example in (3) illustrates the unshifted
and shifted readings of the 1SG pronoun in a finite complement under the verb
hanbikes 'think'.[3]

(3)   *madinas   hanbikib   [dila   q'al   betaqib   ili]*

Madina   thought.3   my   cow   got.lost.3   COMP

    i. 'Madina (female name) thought that my cow had disappeared.'   *unshifted*

    ii. 'Madina$_i$ thought that her$_i$ cow had disappeared.'   *shifted*

Indexical shift is only possible in finite embedded clauses introduced by the complementizer *ili* under a verb of speech or thought. The complementizer is derived from and is still identical to the perfective converb *ili* of the verb *es* 'say'. The range of verbs that select for the finite complement includes the verbs *es* 'say', *bures* 'tell', *žawab bedes* 'answer', *xarbaes* 'ask', *belk'es* 'write', *baq'es* 'hear', *pikri bares* 'think', *hanbikes* 'think, have an opinion, recall', *uruχk'es* 'fear', and some others. Embedded reports are the only complement type that contains a finite verb inflected for person; other complements include various non-finite forms (infinitives, converbs, participles, and nominalizations) not inflected for person. Indexical shift is impossible in non-finite complements. Example (4) features a nominalized complement of the verb *bahaqes* 'let know'; a shifted interpretation of the 1PL pronoun *nuša* is unavailable.

(4)   *daħnani   bahaqur   [nuša   q'an   d-iʔ-ni]*

children   let.know.3   we   late   1/2PL-become-NMLZ

    i. ^{OK} 'The children let (someone) know that we were late.'   *unshifted*

    ii. * 'The children$_i$ let (someone) know that they$_i$ were late.'   *shifted*

Example (5) features a finite embedded reported introduced by the complementizer *ili* under the same matrix verb; both shifted and unshifted readings of the 1PL pronoun are possible.

(5) *dǥħnani bahaqur* [*nuša q'an d-iub-ra* *ili*]

children let.know.3 we late 1/2PL-became-1 COMP

i. ^{OK} 'The children let (someone) know that we were late.' *unshifted*

ii. ^{OK} 'The children_i let (someone) know that they_i were late.' *shifted*

In addition to indexical shift, Aqusha finite complements also demonstrate special person agreement effects. In finite root clauses, person marking must fully match the features of the controller, as shown in (6); see also van den Berg 1999 for a description of person and gender–number agreement in Aqusha.

(6) *nu* { *r-usul-ra* / **r-usuli* *sa-r* }

I F.SG-sleeping-1 F.SG-sleeping AUX-F.SG.3

'I (female) am sleeping.'

In contrast to that, finite embedded reports allow a number of pronoun–agreement mismatches, such as 3.P verbal marking in the presence of the 1SG subject, as in (7).

(7) *ʔǥlis hanbikib* [*nu r-usuli* *sa-r* *ili*]

Ali thought.3 I F.SG-sleeping AUX-F.SG.3 COMP

'Ali (male name) thought that I (female) was sleeping.'

In (6), the embedded verb must agree with the 1.P pronoun in the subject position in both gender–number (the prefix *r-*) and in person (the suffix *-ra*). However, in a finite embedded report in (7), the same verb still agrees with the subject in gender–number, while failing to agree in person and appearing in the unmarked (3.P) form. Example (7) thus shows that the 1SG pronoun does not necessarily trigger 1SG agreement in embedded reports. Moreover, like in (2) from Tamil, 1.P agreement can be triggered by a non-1.P argument, as shown in (8).

(8) *ʔạlis   hanbikib   [sa-j   q'an   iub-ra   ili]*

     Ali   thought.3   self-M.SG   late   (M.SG)became-1   COMP

     'Ali$_i$ thought that he$_i$ was late.'

In this example, the 1SG inflection on the embedded verb is licensed in the absence of a 1SG pronoun, with the only possible controller being the long-distance reflexive (LDR) *saj* in the subject position.

The goal of this article is to document the pronoun–agreement mismatches observed in Aqusha and to develop a Minimalist account of how person agreement in embedded reports in this language can be derived. The structure of the article is as follows. Section 2 introduces the core data set to be accounted for in this article. In Section 3, I formulate the proposal. The details of the derivation of specific examples are laid out in Section 4. In Section 5, I continue the discussion by providing further motivation for some of the specific components of the proposal. Section 6 concludes.

2 Agreement Shift in Aqusha

As examples (7) and (8) above show, person agreement on the finite verb in an embedded report does not necessarily need to match the φ-features of the argument that controls it. The sentence in (9) establishes a baseline, showing an attitude report where the arguments of the matrix clause and the embedded clause are referentially independent.

(9) *ʔa̲lis hanbikib* [*madina q'an r-iub   ili*]

    Ali   thought.3   Madina   late   F.SG-became.3   COMP

    'Ali thought that Madina was late.'

No special effects are observed here: the intransitive embedded verb *bies* 'become' agrees in person and in gender–number with its intransitive subject *Madina* (female given name).

    Embedded reports that host a personal pronoun in an agreeing position either demonstrate an obligatory match between the pronoun's φ-features and verbal agreement or show optionality between matching and mismatching agreement, depending on the reference of the pronoun. Pronouns referring to one of the participants of the matrix speech act obligatorily trigger matching person agreement, as the examples in (10) demonstrate.

(10) Person agreement with pronouns referring to a matrix speech act participant

a. *shifted 1.P pronouns coconstrued with a matrix 3.P attitude holder trigger obligatory 1.P agreement*

ʕ*a̲lis hanbikib* [*nu q'an* { *iub-ra* / **iub* } *ili*]

Ali thought.3 I late (M.SG)became-1 (M.SG)became.3 COMP

'Ali_i thought that he_i was late.'

b. *(unshifted?) 1.P pronouns coconstrued with a matrix 1.P attitude holder trigger obligatory 1.P agreement*

nab hanbikib [*nu q'an* { *iub-ra* / **iub* } *ili*]

I thought.3 I late (M.SG)became-1 (M.SG)became.3 COMP

'I_i thought that I_i was late.'

c. *shifted 2.P pronouns coconstrued with a 3.P addressee of the matrix attitude holder trigger obligatory 2.P agreement*

ʕa̲lini ʕa̲ħmadlizi burib [*ħu q'an* { *iub-ri* / **iub* } *ili*]

Ali to.Ahmad told.3 you late (M.SG)became-2SG (M.SG)became.3 COMP

'Ali_i told Ahmad_j (male name) that he_j was late.'

Unshifted 1.P pronouns show optionality between 1.P agreement and 3.P agreement; see (11).

(11) Person agreement with unshifted 1.P pronouns

a. *unshifted 1.P pronouns denoting the actual speaker show 1.P or 3.P agreement in the presence of a 3.P attitude holder*

ʕa̲lis hanbikib [*nu q'an* { *r-iub-ra* / *r-iub* } *ili*]

Ali thought.3 I late F.SG-became-1 F.SG-became.3 COMP

'Ali thought that I (female) was late.'

b. *unshifted 1.P pronouns denoting the actual speaker show 1.P or 3.P agreement in*

   the presence of a 2.P attitude holder

ħed hanbikib [nu q'an { r-iub-ra   / r-iub }   ili]

you   thought.3 I   late   F.SG-became-1 F.SG-became.3 COMP

'You thought that I was late.'

c. *unshifted 1.P pronouns coconstrued with a 1.P addressee of the matrix attitude*

   holder trigger 1.P or 3.P agreement, but not 2.P agreement

*ʔalini nabzi burib [nu q'an { r-iub-ra   /   r-iub   / *r-iub-ri }   ili]*

Ali   to.me told.3 I   late   F.SG-became-1 F.SG-became.3 F.SG-became-2SG COMP

'Ali told me that I (female) was late.'

Unshifted 2.P pronouns in most cases show optionality between 2.P agreement and 3.P agreement in most example; see (12).

(12) Person agreement with unshifted 2.P pronouns

a. *unshifted 2.P pronouns denoting the addressee of the actual speaker show 2.P or*

   3.P agreement in the presence of a 3.P attitude holder

ʔalis hanbikib [ħu   q'an { r-iub-ri   /   r-iub }   ili]

Ali   thought.3 you   late   F.SG-became-2SG F.SG-became.3 COMP

'Ali thought that you (female) were late.'

b. *unshifted 2.P pronouns denoting the addressee of the actual speaker show 2.P or 3.P*

   agreement in the presence of a 1.P attitude holder

nab   hanbikib   [ħu   q'an   { r-iub-ri   /   r-iub }   ili]

I   thought.3   you   late   F.SG-became-2SG   F.SG-became.3   COMP

'I thought that you were late.'

c. *unshifted 2.P pronouns denoting the addressee of the actual speaker show 2.P or 3.P*

   agreement in the presence of a 3.P addressee of the matrix attitude holder

ʔalini   ʔaħmadlizi   burib   [ħu   q'an   { r-iub-ri   /   r-iub }   ili]

Ali   to.Ahmad   told.3   you   late   F.SG-became-2SG   F.SG-became.3   COMP

'Ali_i told Ahmad_j that you_k (female) were late.'

    However, unshifted 2.P pronouns coconstrued with a local 2.P attitude holder

trigger 1.P or 2.P agreement, as shown in (13).

(13) *ħed   hanbik-ib   [ħu   q'an   { iub-ra   /   iub-ri }   ili]*

   you   thought.3   you   late   (M.SG)became-1   (M.SG)became-2SG   COMP

    'You (singular male) thought that you were late.'

    Long-distance reflexive pronouns (LDRs) coconstrued with the matrix attitude

holder trigger 1.P or 3.P agreement, as shown in (14).

(14) *ʔalis   hanbik-ib   [sa-j   q'an   { iub-ra   /   iub }   ili]*

   Ali   thought.3   self-M.SG   late   (M.SG)became-1   (M.SG)became.3   COMP

    'Ali_i thought that he_i was late.'

In a pretheoretical way, I propose that this paradigm arises as a result of Aqusha having two different modes of person agreement in embedded reports. In the *φ-feature mode*, person agreement behaves normally, just like in independent finite clauses, only being sensitive to the lexical specification for person value. In the *logophoric mode*, only pronouns that denote one of the participants of the speech act described by the matrix clause can trigger person agreement.

Following the tradition established in African studies (Hagège 1974, Clements 1975, Culy 1997, Huang 2000), I call *logophoric* an element inside the embedded report that refers to the original speaker/attitude holder reporting the utterance. With respect to Aqusha, logophoric agreement means that the agreement behavior of an embedded argument depends on whether or not the argument is coconstrued with the (closest) attitude holder or their addressee. On the logophoric mode of agreement, 1.P agreement in *ili*-complements is only triggered by arguments that denote the matrix speaker/attitude holder; 2.P agreement inside embedded reports is reserved for arguments that refer to the addressee of the matrix speaker. All other arguments are treated in the logophoric mode as 3.P arguments regardless of their lexical specification for person, as generalized in (15).[4]

(15) Logophoric mode of person agreement in embedded reports
a. Pronouns coconstrued with the matrix attitude holder trigger 1.P agreement regardless of their φ-features;
b. 2.P pronouns coconstrued with the addressee of the matrix attitude holder trigger 2.P agreement;
c. Other pronouns trigger 3.P agreement regardless of their φ-features.

Table 1 summarizes agreement options in embedded reports in Aqusha and attributes specific choices in the examples above to one of the two available modes of person agreement.[5]

Table 1. Person agreement in Aqusha embedded reports.

pronoun	interpretation	φ-feature mode	logophoric mode	ex.
nu '1SG'	shifted	1SG	1SG	10a
	unshifted, coconstrued with the closest attitude holder	1SG	1SG	10b
	unshifted, disjoint from the closest attitude holder	1SG	3SG	11a –b
	unshifted, coconstrued with the matrix addressee	1SG	3SG	11c
ħu '2SG'	shifted	2SG	2SG	10c
	unshifted, coconstrued with the closest attitude holder	2SG	1SG	10d
	unshifted, disjoint from the closest attitude holder	2SG	3SG	12

saj 'REFL.M.SG'	coconstrued with the closest attitude holder	3SG	1SG	14

Both modes converge on yielding 1.P agreement in (10a) and (10b) and 2.P agreement in (10c). In (10a), for instance, the agreement controller is the 1SG pronoun *nu*, which is sufficient to yield 1.P agreement on the φ-feature mode, but it also is shifted, that is, interpreted as the closest attitude holder found in the immediately dominating matrix clause, which is enough to trigger 1.P agreement on the logophoric mode.[6] In (10c), the 2SG pronoun *ħu* can trigger 2SG agreement due to its φ-features, but it also denotes the addressee of the matrix speech event and thus results in 2SG agreement on the logophoric mode as well.

The availability of two different modes creates variation in person agreement in other examples. In (11a), for example, the pronoun is 1SG, thus triggering 1.P agreement on the φ-feature mode. However, the pronoun refers to the actual speaker, not the closest attitude holder, and thus counts as 3.P on the logophoric mode. The example in (11b) demonstrates that the person of the matrix attitude holder plays no role in the computation of person agreement with an unshifted 1.P pronoun. In (13), the matrix subject and the embedded subject are expressed as the 2SG pronoun *ħu*, both interpreted as the addressee of the actual speech act (i.e., having unshifted interpretation).[7] The φ-feature mode yields regular 2.P agreement in the embedded clause, whereas the logophoric mode results in 1.P agreement, since the 2SG pronoun is coconstrued with the matrix attitude holder.

In a similar way, the logophoric mode accounts for one more case of 1.P agreement in embedded reports, the one triggered by the 3.P LDR bound by the matrix

subject expressing the attitude holder, as shown in (14). Here, the LDR in the embedded subject position is coconstrued with the matrix attitude holder and thus triggers 1.P marking on the embedded verb. The reflexive is a 3.P anaphor and can thus also trigger 3.P agreement, according to its φ-features.[8]

With respect to 2.P agreement, a similar picture emerges. In the φ-feature mode, any 2.P pronoun is able to trigger 2.P agreement regardless of whether it refers to the current addressee or the addressee of the reported speech act, as seen from 2.P agreement in both (10c) and (12). In the logophoric mode, however, only pronouns coconstrued with the addressee of the closest attitude holder trigger 2.P agreement, as in (10c), whereas other instances of 2.P pronouns yield 3.P agreement, as in (12).

We can thus see that the rules of person agreement in embedded reports in Aqusha are relatively straightforward, operating in either plain φ-feature mode or logophoric mode. In the φ-feature mode, pronouns trigger person agreement in accordance with their lexical specification for φ-features. The situation is more complex in the logophoric mode: only pronouns denoting the matrix attitude holder, show 1.P agreement, whereas pronouns referring to another participant cannot trigger 1.P agreement. Likewise, pronouns coconstrued with the addressee of the matrix speech act show 2.P agreement in the logophoric mode. The only exception to this rule is examples like (11c) where the 1SG pronoun *nu* inside the embedded report is coconstrued with the same pronoun expressing the addressee in the matrix clause. The φ-feature mode of person agreement in embedded reports correctly predicts 1.P agreement here. The most straightforward application of the "logophoric logic" predicts 2SG agreement here, since the 1SG pronoun is coconstrued with the matrix addressee; cf. the mirror pattern where the 2SG pronoun shows 1.P agreement when

coconstrued with the matrix attitude holder in (13). However, this prediction is not borne out; 2SG agreement is ungrammatical. Instead, 3.P agreement is available here. We can thus conclude that the logophoric mode of person agreement only allows shifted 2.P pronouns to trigger 2.P agreement, as stated in (15). The technical implementation discussed in Sections 3 and 4 below makes it clear why only 3.P agreement is allowed in the logophoric mode in examples like (11c).

In the pages ahead, I abstract away from the φ-feature mode of agreement, which presents no particular theoretical challenge (see also footnote 11), and instead concentrate on the derivation of logophoric agreement.

3 Proposal

Two major lines of investigation can be isolated in current theoretical literature on indexical shift—one syntactic and one semantic—depending on where the primary locus of the shift in the semantics of indexical pronouns is assumed to be: narrow syntax or LF.[9] Following earlier proposals for logophoric pronouns (Koopman and Sportiche 1989), the syntactic approach relies on the existence of a dedicated projection in the C layer of the clause that hosts null arguments, or features, or operators for the speaker (and for the addressee), such as the S(peaker) and A(ddressee) arguments in Baker 2008 or a logophoric agent (Λ_A) and logophoric patient (Λ_P) in Sigurðsson 2004, 2007, 2013; see also Speas and Tenny 2003, Schlenker 2004. Following the evidence from syntax and semantics that at least some personal pronouns are minimal, that is, originally merged without φ-features (Heim 2008, Kratzer 2009), syntactic approaches to indexical shift tend to assume that pronouns merge as bare variables and receive φ-features later in the syntactic

derivation. All uses, both shifted and unshifted, of 1.P and 2.P pronouns are analyzed as being referentially dependent on the closest Speaker/Addressee element in the left periphery. The exact nature of the relation between the left-peripheral element and the variable in the embedded clause is different depending on the approach. According to Schlenker (2003, 2004) and Baker (2008, 2018), the referential dependency is established via binding, whereas Sigurðsson (2004, 2007, 2013) proposes that it is due to Agree in a probe–goal relation between the pronoun and the left-peripheral argument. The left-peripheral Speaker element that refers to the participants of the current speech act is obligatory in main clauses, ensuring that all pronouns bound by this element show up as 1.P pronouns. In addition, clausal complements of some matrix verbs, such as predicates of speech or thought, are large enough to include their own Speaker, which intervenes between the matrix Speaker and the minimal pronoun in the embedded clause and serves as the source of φ-features for that minimal pronoun. The Speaker argument in the left periphery of the embedded clause, in turn, receives its reference from either the matrix subject or the matrix left-peripheral Speaker, thus yielding shifted or unshifted uses of personal pronouns, respectively.

The semantic approach to indexical shift holds that the context of interpretation in embedded reports is shifted by a semantic operator (*monster*) that manipulates the assignment function at LF, rewriting the context coordinates of the embedded clause and substituting the participants of the current speech act with the participants of the speech act denoted by the matrix clause (see a thorough overview in Deal 2019). While earlier work by Schlenker (2003, 2004) assumed that the attitude verb itself is the context-manipulating monster, most current work seems to converge on the conclusion that the monster that regulates indexical shift is better analyzed as a

dedicated operator sitting in the left periphery of the embedded clause (Anand and Nevins 2004, Anand 2006, Sudo 2012, Shklovsky and Sudo 2014). For example, Shklovsky and Sudo (2014) show that the embedded report in Uyghur (Turkic) is partitioned into two domains depending on the interpretation of personal pronouns: accusative subjects sitting in the left periphery never receive the shifted interpretation, whereas nominative subjects canonically located in Spec,TP are obligatorily interpreted as shifted. This is not expected under Schlenker's attitude verb-as-monster approach but follows naturally if the monster operator is in the specifier of a left-peripheral projection in the embedded clause: personal pronouns below the monster have an obligatory shifted interpretation, while personal pronouns above the monster never do.

The two phenomena introduced above—indexical shift and agreement shift—evidently relate to each other in Aqusha, as they appear in exactly the same syntactic environment—finite complements with the complementizer *ili* under a matrix verb of speech/thought—in addition to showing a non-trivial correlation with each other, as demonstrated in Section 2 above. In light of this fact, I assume that both phenomena are derived by a single mechanism. Given that this mechanism leaves a morphosyntactic trace in the form of morphological agreement, which apparently cannot be derived at LF, I side with the syntactic (binding) line of research and propose that both indexical shift and agreement effects in attitude reports arise in the narrow syntax due to the logophoric properties of the complementizer *ili*. My theory of indexical shift and person agreement in embedded reports in Aqusha includes three components: (i) a particular, though not entirely new, view of the left periphery of
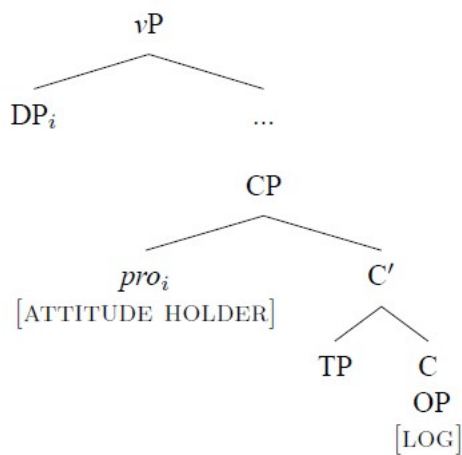
embedded reports, (ii) a specific proposal about the structure of personal pronouns, and (iii) a set of Vocabulary Insertion rules for verbal person markers.

With regard to the left-peripheral infrastructure, I propose that the complementizer *ili* is a logophoric operator that syntactically represents the context of the speech event introduced in the immediately dominating matrix clause (cf. Messick to appear). In the semantics, it can be thought of as a context λ-abstractor that binds indexical expressions it c-commands and thus defines their context of interpretation (cf. Schlenker 2003, Sundaresan 2021). In the syntax, that operator carries the feature [LOG] and can syntactically bind c-commanded indexicals. In addition, the logophoric complementizer *ili* introduces a null argument in the specifier of its CP. In the syntax, this null argument acts as the subject of the logophoric context operator in C; that is, it syntactically represents within the embedded report the attitude holder of the matrix clause speech event. It carries the feature [ATTITUDE HOLDER] and can be thought of as the attitude holder *par excellence*. In the semantics, this logophoric subject binds the speaker variable of the context λ-operator, thus ensuring that the referent of the matrix subject is understood as the reporter/attitude holder whose speech/thoughts are reported in the embedded clause (cf. Charnavel 2019, 2020).

A note is in order here about the syntactic properties of this null logophoric pronoun. In the current version of the proposal, I consider it to be a regular null referential pronoun (*pro*) merged with a full set of φ-features, which restrict the binding options within the embedded reports and ensure that only a pronoun with a set of matching φ-features can be bound by that null pronominal. With regard to the relationship between the null pronoun in the embedded Spec,CP and the matrix attitude holder, I propose that they do not establish a direct syntactic connection of

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any kind, but rather that they are subject to the φ-feature matching, as discussed in Section 4 below. The schematic representation of the proposed syntactic structure of attitude reports is shown in (16).

(16) The structure of attitude reports

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                    vP
              /          \
        DP_i              ...
                           CP
                       /        \
                   pro_i          C′
              [ATTITUDE HOLDER]   /  \
                              TP    C
                                    OP
                                  [LOG]
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This is where the story ends when the embedded report does not contain any pronouns that can be bound from the left periphery. The machinery described above, including both the logophoric operator and the null logophoric subject in Spec,CP, remains inactive and largely invisible in that case. However, the embedded TP can also host an LDR or a personal pronoun. The interaction between the embedded LDR/pronoun, on one hand, and the left-peripheral infrastructure shown in (16), on the other hand, determines the interpretation of the LDR/pronoun and its agreement behavior, as spelled out in detail in Section 4.

The second part of my proposal concerns the structure of pronouns in Aqusha. First, I propose that the person–number specification that pronouns bear is inherent; that is, it is part of their lexical representation (see Section 5 below for a discussion).

Second, I propose that all indexicals feature a syntactic representation of the context in the form of a context index. Participant pronouns thus represent a combination of an individual index and a context index,[10] whereas 3.P pronouns, including LDRs, only have an individual index. The syntactic structure of participant and reflexive pronouns is shown in (17).

(17)　　a. 3SG LDR:　　　　　　　　　　$x_{i[3SG]}$

　　　　b. 1SG pronoun:　　　　　　　　$x_{i[1SG]\oplus k}$

　　　　c. 2SG pronoun:　　　　　　　　$x_{i[2SG]\oplus k}$,

　　　　where i is an individual index and k is a context index.

The individual index carries the usual person features, which determine the discourse role of the corresponding individual in a speech act (the speaker, the addressee, or a non-participant). The context index of a personal pronoun determines the context of interpretation of that discourse role for the pronoun, specifying exactly which speech act that personal pronoun must be interpreted against. In order to receive interpretation, the context index can be semantically bound by a c-commanding context operator or be understood as the current speech act as the default option. In the syntax, the context index can be bound by the local left-peripheral context operator and receive the [LOG] feature from it, or remain free within the embedded report. The last piece of my proposal regarding pronouns is the idea that any pronoun can receive the feature [ATTITUDE HOLDER] when syntactically bound by the null logophoric subject in Spec,CP.

Finally, the third component of the proposal concerns morphological exponence. I suggest that on the logophoric mode of person agreement, Vocabulary Insertion rules for person markers are sensitive to the [LOG] feature: only a combination of a person feature with [LOG] results in overt agreement in morphology, whereas a person feature without [LOG] receives an elsewhere (3.P) exponence, as in (18) (allomorphs are distributed across TAM forms and lexical verbs; some allomorphs are clitic-like, others unambiguously represent morphological agreement; I am not aware about any differences between the two with regard to the behavior in embedded reports).

(18)   a. [1SG, LOG] $\rightarrow$ *-ra/-s*

     b. [2SG, LOG] $\rightarrow$ *-ri/-d*

     c. elsewhere $\rightarrow$ *-0/-r/-n/-a/-u*

The feature [ATTITUDE HOLDER] plays a special role in the current system: being the signature of the attitude holder of the local context, it triggers 1.P morphology on its own, regardless of the φ-features a pronoun has, as expressed in (18d).

(18)   d. [ATTITUDE HOLDER] $\rightarrow$ *-ra/-s*

The rules in (18) ensure that the finite head of the embedded report will have 1SG inflection when the pronoun is specified as [1SG; LOG] or carries [ATTITUDE HOLDER]; 2SG agreement will appear when the pronoun has [2SG; LOG]; 3.P inflection is used when the pronoun does not have [LOG] or [ATTITUDE HOLDER], regardless of the pronoun's person features.[11]

This architecture, I believe, is necessary and sufficient to derive the semantic interpretation and agreement behavior of personal pronouns and LDRs in Aqusha. The next section describes the derivation of person agreement in embedded reports in more detail. In Section 5, I unpack some of the pieces of the proposal laid out in the preceding paragraphs and show the motivation behind them.

4 Deriving Indexical Shift and Person Agreement in Embedded Reports

Beginning with the most trivial examples, let us consider the derivation of matching person agreement, that is, 1.P and 2.P agreement with 1.P and 2.P pronouns, respectively, as in (10a) and (10c), repeated here as (19) and (20); only the agreement attributed to the logophoric mode is shown in the examples in this section.

(19) *ʔalis hanbikib* [*nu q'an iub-ra ili*]

Ali thought.3 I late (M.SG)became-1 COMP

'Ali$_i$ thought that he$_i$ was late.'

(20) *ʔalini ʔaħmadlizi burib* [*ħu q'an iub-ri ili*]

Ali to.Ahmad told.3 you late (M.SG)became-2SG COMP

'Ali$_i$ told Ahmad$_j$ (male name) that he$_j$ was late.'

Recall that both 1.P and 2.P pronouns have a context index in their structure. The pathway to shifted personal pronouns lies in the syntactic binding of that context index by the logophoric operator and the subsequent transmission of the feature [LOG] from the binder to the bound pronoun, as in (21).
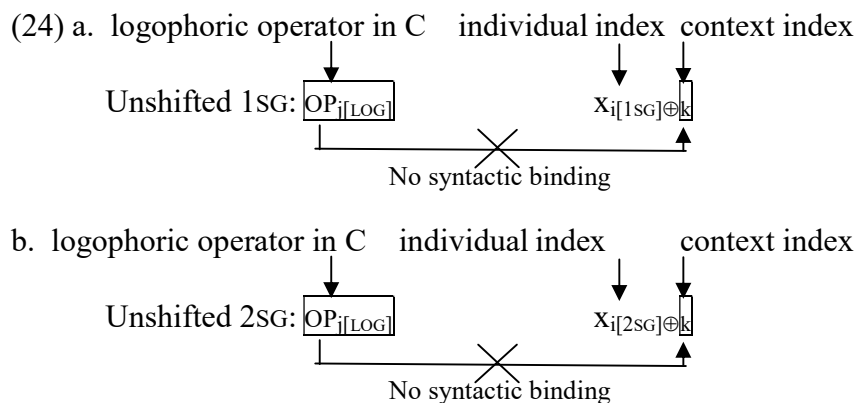
(21) a.

logophoric operator in C   individual index   context index

Shifted 1SG: $\boxed{OP_{k[\text{LOG}]}}$ $x_{i[1\text{SG}]\oplus \boxed{k[\text{LOG}]}}$

Syntactic binding

b.

logophoric operator in C   individual index   context index

Shifted 2SG: $\boxed{OP_{k[\text{LOG}]}}$ $x_{i[2\text{SG}]\oplus \boxed{k[\text{LOG}]}}$

Syntactic binding
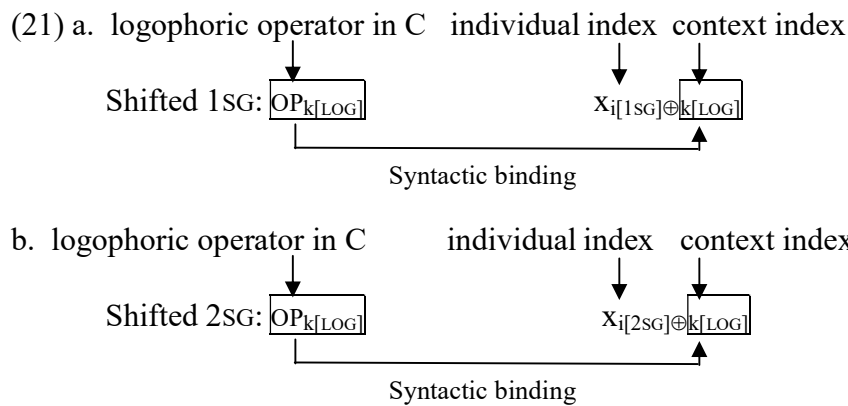
(21) shows the interaction between the left-peripheral operator lexicalized by the complementizer *ili* and a personal pronoun embedded under it. In (21a), the context index within the 1SG pronoun is bound by the logophoric context operator and receives the [LOG] feature from it. In the semantics, the pronoun with the feature structure [1SG; LOG] is interpreted as the attitude holder of the local context. In the morphology, a 1.P agreement controller that also carries [LOG] triggers the insertion of 1.P verbal morphology. A similar situation is observed in the 2SG pronoun, as shown in (21b). The context index of the pronoun is bound by the left-peripheral operator, thus acquiring the feature [LOG] from it. In the semantics, the pronoun with the feature set [2SG; LOG] is understood as the addressee of the attitude holder of the local context. In the morphology, a 2.P pronoun that carries [LOG] triggers overt 2.P agreement on the finite verb.

Now let us consider the derivation of sentences with 1.P and 2.P pronouns that fail to trigger expected person agreement in the embedded report, combining instead with a 3.P finite verb, as in (22) and (23), repeated from (11a) and (12a).

(22) *ʔɑ̱lis hanbikib* [*nu q'an r-iub   ili*]

Ali   thought.3   I   late   F.SG-became.3   COMP

'Ali thought that I (female) was late.'

(23) *ʔɑ̱lis hanbikib* [*ħu q'an r-iub   ili*]

Ali   thought.3   you   late   F.SG-became.3   COMP

'Ali thought that you (female) were late.'

The unshifted interpretation of an embedded pronoun obtains where the left-peripheral context operator leaves the pronoun unbound; see (24).[12]

(24) a. logophoric operator in C   individual index context index

Unshifted 1SG: $OP_{j[LOG]}$ $x_{i[1SG]\oplus k}$

No syntactic binding

b. logophoric operator in C   individual index   context index

Unshifted 2SG: $OP_{j[LOG]}$ $x_{i[2SG]\oplus k}$

No syntactic binding

In (24a), the pronoun remains free within the embedded context and therefore never receives the [LOG] feature, with consequences for its interpretation and morphology: it cannot be understood as referring to the attitude holder of the local context and never triggers 1.P morphology on the finite verb. In (24b), the 2SG pronoun also remains free within the embedded report and does not acquire the [LOG]

feature, meaning it is understood as the addressee in a context other than that of the embedded report and cannot overtly agree in 2.P with the verb.[13]

Summing up, the locus of indexical shift lies in the context index within the indexical expression that may or may not be bound by the logophoric context operator in the embedded C. This same operator is responsible for the agreement behavior of personal pronouns: whether or not a personal pronoun triggers person agreement in the logophoric mode depends on the presence of the feature [LOG]. Shifted pronouns in (21) bound by the logophoric operator receive that feature and trigger person agreement according to the VI rules in (18). Unshifted pronouns in (24), which remain free within the embedded report, do not have a source to receive the feature [LOG] from and cannot thus trigger person agreement.[14]

Let us now consider another mismatch between the lexical specification of a pronoun and the person marking it triggers on the verb. According to my descriptive account of the logophoric mode, the verb in the embedded report has 1.P agreement whenever the argument it agrees with is coconstrued with the matrix attitude holder. As shown in Section 2, the coconstrual requirement is also satisfied in examples (13) and (14), repeated here as (25) and (26).

(25) *ħed hanbik-ib* [*ħu q'an iub-ra ili*]

    you thought.3   you late (M.SG)became-1 COMP

    'You (singular male) thought that you were late.'

(26) *ʔalis hanbik-ib* [*sa-j q'an iub-ra ili*]
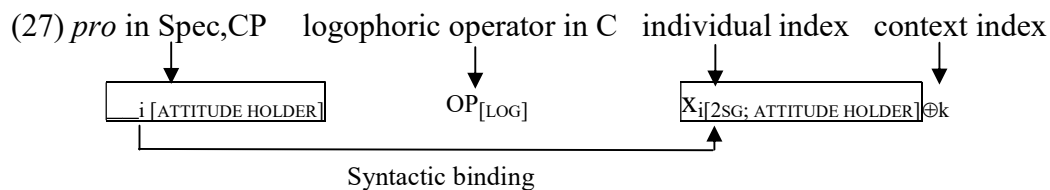
    Ali   thought.3   self-M.SG late (M.SG)became-1 COMP
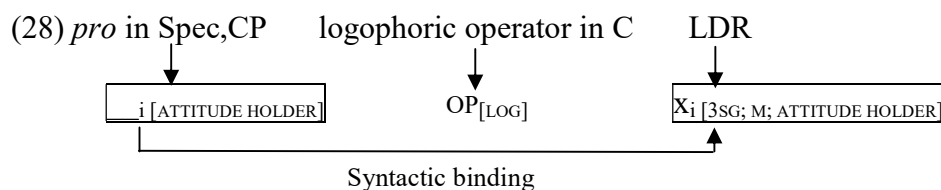
    'Ali$_i$ thought that he$_i$ was late.'

In example (25), both the matrix subject (attitude holder) and the embedded subject are expressed by the 2SG pronoun and are coconstrued, both referring to the addressee of the actual speech act. In a similar way, in (26), the embedded LDR coconstrued with the matrix subject triggers 1.P agreement. Note that these two examples are similar enough for us to want to treat them in a uniform way: both involve 1.P agreement with something that is not a 1.P expression. I maintain that unlike with shifted indexicals, where 1.P agreement arises due to the left-peripheral logophoric operator, the derivation of 1.P agreement in (25) and (26) does not involve it, for two reasons. First, the analysis proposed above suggests that personal pronouns bound by that operator receive the shifted interpretation. The 2SG pronoun in (25) is unshifted; that is, it refers to the addressee of the actual speech act rather than that of the reported speech act, and thus, per my analysis, is not bound by the logophoric operator in the embedded C. The embedded subject in (26) is a regular subject-bound LDR, which does not even depend on the speech context for its interpretation and thus cannot be bound by the logophoric operator in principle. Second, unlike shifted pronouns bound by the logophoric context operator, which are not sensitive to the person of the matrix attitude holder, the embedded pronouns in (25) and (26) show sensitivity to the person value of the matrix subject. 1.P agreement with the embedded 2.P pronoun is only possible when the matrix subject is also the 2.P pronoun; the LDR can only be bound by a 3.P antecedent. These facts suggest that 1.P agreement arises in (25) and (26) via a different pathway. In Section 3, I propose that in addition to the logophoric operator, the left periphery of embedded reports contains one more element, a null pronoun in Spec,CP. It is this null argument that plays a crucial role in inducing 1.P agreement in examples like (25) and (26). I propose that 1.P agreement in

(25) and (26) results from the syntactic binding of the pronoun by the null logophoric subject in Spec,CP. Let us consider how 1.P agreement with a 2.P pronoun or a 3.P LDR is achieved due to this other pathway.

Recall that the 2.P pronoun in (25) is unshifted, which from a structural point of view indicates that the context index within this indexical is not bound by the local logophoric operator and does not receive the [LOG] feature from it, just like in other cases of unshifted personal pronouns. However, the null pronoun in the embedded Spec,CP merged at the next step of the derivation is still able to bind the 2.P pronoun, as shown in (27).

(27) *pro* in Spec,CP   logophoric operator in C   individual index   context index

$$\text{i [ATTITUDE HOLDER]} \qquad \text{OP}_{[\text{LOG}]} \qquad x_{i[\text{2SG; ATTITUDE HOLDER}]} \oplus k$$

Syntactic binding

Given feature sharing under syntactic binding, the 2.P pronoun receives the [ATTITUDE HOLDER] feature of its binder, which leads to 1.P agreement on T, according to the VI rules in (18) above. In a similar way, the LDR in example (26) is also bound by the null pronoun in Spec,CP. Due to syntactic binding, the [ATTITUDE HOLDER] feature appears on the LDR, thus triggering the spell-out of 1.P morphological agreement on T, according to the VI rules in (18).

(28) *pro* in Spec,CP   logophoric operator in C   LDR

$$\text{i [ATTITUDE HOLDER]} \qquad \text{OP}_{[\text{LOG}]} \qquad x_{i\,[\text{3SG; M; ATTITUDE HOLDER}]}$$

Syntactic binding

Importantly, this derivation not only provides the necessary agreement exponence on the embedded verb, but also accounts for the sensitivity of 1.P agreement to the person value of the matrix subject in (25) and (26), since the syntactic binding of individual pronouns is known to be sensitive to the φ-features of the antecedent (see Reuland 2011 and literature cited therein; see also footnote 8).

One last pattern remains to be derived. As described in Section 2, an embedded 1.P pronoun can never co-occur with 2.P agreement even when that pronoun is coconstrued with the matrix addressee; instead, 3.P agreement is observed in that environment, as in (29), repeated from (11c).

(29) *ʔalini nabzi burib* [*nu q'an* { *r-iub* / **r-iub-ri* } *ili*]

Ali   to.me told.3   I   late   F.SG-became.3 F.SG-became-2SG COMP

'Ali told me that I (female) was late.'

As proposed in Section 3, 2SG agreement only arises in the proposed system as a morphological response to the feature set [2SG; LOG], as spelled out in (18). The 1SG pronoun *nu* obviously does not have the [2SG] feature and cannot thus determine 2SG agreement. Let us now see how 3.P agreement arises in this example. Three options exist for a 1.P pronoun in embedded reports: (i) its context index is bound by the logophoric operator in C, (ii) its individual index is bound by the null pronominal in Spec,CP, or (iii) it remains free within the embedded report. The first two options result in 1.P agreement in the logophoric mode, whereas the third option leads to 3.P agreement. We can safely exclude the first option for the embedded pronoun in (29), since pronouns bound by the logophoric operator are shifted, that is, they are

understood as referring to the matrix attitude holder, which is not the case here. The second option can also be excluded in (29). Recall that the null left-peripheral pronominal represents the matrix attitude holder inside the embedded report. Binding an embedded 1.P pronoun by the null pronominal would result in the interpretation that this 1.P pronoun refers to the matrix attitude holder, that is, again to the shifted reading, which is obviously absent here. We can conclude that the 1SG pronoun in (29) is not bound by either the logophoric operator in C or the null logophoric subject in Spec,CP, meaning that it can never receive [LOG] or [ATTITUDE HOLDER] and triggers elsewhere (3.P) agreement according to the VI rules in (18).

Before turning to the discussion, one point in the analysis has to be clarified. As mentioned in Section 3, I propose that the null logophoric subject does not enter a syntactic relationship with the matrix attitude holder, instead having to match it in φ-features. The main motivation for this view is that the matrix attitude holder does not need to c-command the embedded clause, as can be seen from examples where an *ili*-clause is embedded under a noun like *χabar* 'news' and *kaʁar* 'letter'; see (30).

(30) *Ɂerʁila barħi murad-la$_i$ χabar bak'ib* [*sa-j$_i$ šilizi   čaruqul-ra ili*]

     next   day   Murad-GEN news came.3 self-M.SG to.village come-1   COMP

     'The next day news arrived from Murad that he was coming back to the village.'

(lit. 'Murad's news arrived that …')

As can be seen from this example, the LDR *saj* inside the embedded report matches the matrix attitude holder in φ-features and triggers 1.P agreement, thus indicating that the null logophoric pronoun is involved here, according to my analysis.

However, the matrix attitude holder is a genitive modifier to the noun *χabar* 'news', which specifies the author of the news and does not c-command the embedded clause, thus effectively excluding a syntactic approach to the φ-feature match between the matrix attitude holder and the null logophoric subject in the left periphery of the embedded report.

Another piece of evidence that suggests that the null logophoric subject is not in a syntactic control-like relationship with the matrix attitude holder is that it does not have to co-refer with the attitude holder in the immediately dominating matrix clause, but can also refer back to an attitude holder in a more distant matrix clause, as shown in (31).

(31) *rasulli$_i$ ib   [madinas$_j$ hanbikilri [sa-j$_i$ uhna   kaili*

     Rasul   said.3   Madina   thought.3   self-M.SG inside put

{ *sa-j   /   sa-j-ra* }   *ili*]]

  AUX-M.SG.3   AUX-M.SG-1   COMP

'Rasul$_i$ said that Madina$_j$ was thinking that he$_i$ had gotten arrested.'

In this example, two agreement options are possible in the most embedded clause. 3.P agreement can be accounted for as arising on φ-feature mode of person agreement; 1.P agreement can be attributed to the logophoric mode. Note, however, that the subject LDR in the most embedded clause refers back to the attitude holder *Rasul* in the uppermost clause rather than to the attitude holder in the immediately dominating clause. According to the theory proposed here, 1.P agreement with an LDR can only appear when the LDR is co-construed with the local null logophoric pronoun. The fact

that the LDR refers back to the subject of the uppermost clause means that the logophoric *pro* is also coconstrued with the uppermost subject, indicating that the null left-peripheral pronoun can be anteceded by an argument in a non-immediately-dominating clause.[15]

5 Discussion

The system outlined above contains two non-trivial pieces. On the one hand, I propose that the feature system includes three (types of) features: traditional person features, the [LOG] feature, and the [ATTITUDE HOLDER] feature. On the other hand, I propose that the left-periphery of embedded reports hosts two different elements: a logophoric operator in C lexicalized by the complementizer *ili* and a null logophoric subject in Spec,CP. While this might seem to be too much machinery, in this section, I provide some motivation for the theoretical choices made here.

Let us first look at person agreement with shifted personal pronouns in embedded reports. I maintain that person features alone cannot derive their agreement pattern and another feature (call it [LOG]) should be added. The main argument for the necessity of the feature [LOG] comes from the mismatch between unshifted pronouns and agreement, which clearly indicates that it is not person features alone that are responsible for person agreement. After all, in examples like (22), the subject argument *is* expressed as the 1SG pronoun and could not yield 3.P agreement, if person agreement depended exclusively on pronominal person features. Were lexical pronouns and person agreement both regulated by the same feature(s), they would be in a one-to-one correspondence with each other, contrary to fact. However, the mismatches receive a natural account once we introduce the separate [LOG] feature,

which triggers person agreement but has no effect on pronouns, which are only sensitive to person features. I thus propose that personal pronouns that do trigger person agreement additionally carry the feature [LOG], receiving it from the logophoric operator.

By contrast, traditional person features are unlikely to be transmitted in syntax. Again, in examples like (22) and (23) above, the pronouns have unshifted interpretations, meaning they do not interact with the logophoric context operator in the left periphery. Assuming the local nature of feature transmission, the unshifted pronoun that remains free within the embedded report cannot also receive its person feature from the matrix clause. I thus conclude that person features on pronouns are inherent, coming as part of the lexical specification of the pronoun, rather than transmitted from a licenser in the left periphery.

Let us now see whether traditional person features and the newly introduced [LOG] feature are enough to derive 1.P agreement with non-1.P pronouns. Assume that it can be derived by using person features alone. If a non-1.P pronoun needed to carry [1SG] to trigger 1.P agreement, that feature would not be inherent on the pronoun and should thus be acquired by way of syntactic binding from a left-peripheral element that inherently has [1SG]. However, as assumed above, syntactic binding is sensitive to φ-features, meaning that the left-peripheral 1SG element could not bind a non-1.P pronoun. Therefore, it would not transmit the [1SG] feature to it and further to T, ultimately resuling in the absence of 1.P agreement.

Assume now that 1.P agreement with a non-1.P pronoun can be derived by the [LOG] feature alone. Two considerations can be adduced here. First, according to the proposal above, personal pronouns carrying the [LOG] feature must be understood as

shifted, that is, referring to the participants of the matrix speech act. As mentioned earlier, the 2SG pronoun in (25) is not shifted and hence should not have [LOG] in this system. Moreover, the feature [LOG] is assumed to be available only to indexicals, characterizing them as part of the context introduced by the matrix clause. LDRs are not context-sensitive and should thus never be able to carry [LOG], which means that 1.P agreement with 3.P LDRs in (26) is achieved without using [LOG]. The other consideration concerns agreement patterns with 2SG pronouns. As demonstrated above, shifted 2SG pronouns determine 2SG agreement on the embedded finite verb, whereas unshifted 2SG pronouns coconstrued with the matrix attitude holder trigger 1SG agreement (see Table 1). If agreement in these two different configurations were triggered by the same feature [LOG], we would never see different person morphology there, since in both cases, the pronouns would be indistinguishable, specified as [2SG; LOG]. Combining [LOG] with [1SG], in order to derive 1.P agreement with the 2SG pronoun (unlike unshifted 2SG pronoun, which would carry [2SG; LOG]), would not work either, for the reasons related to φ-feature matching and transmission in syntactic binding discussed in the preceding paragraph. The discussion above thus demonstrates that 1.P agreement with non-1.P pronouns cannot be derived by using person features and [LOG], either alone or in combination, thus suggesting that yet another feature is necessary to derive the empirical picture of person agreement in Aqusha embedded reports, the feature that I call [ATTITUDE HOLDER] here.

Now that I have argued for the necessity of three different types of morphosyntactic features on pronouns, the necessity of two different left-peripheral objects follows. In fact, as suggested above, person features are inherently present on pronouns, whereas the other two features—[LOG] and [ATTITUDE HOLDER]—must

come from the left periphery, judging from the fact that the effects ascribed to these features are only observed in finite *ili*-complements. If so, [LOG] and [ATTITUDE HOLDER] cannot originate in the same structural position, since otherwise they would always come in a pair and would be in a one-to-one correspondence.

We thus need two different structural positions in the left periphery of *ili*-complements. In the proposal above, I implement this requirement by proposing that the complementizer *ili* is a logophoric context operator, which also introduces a null pronoun in its specifier. Other implementations are presumably also possible, as long as the following properties hold: (i) there are two different left-peripheral elements, (ii) one of them is a nominal argument able to bind personal pronouns and LDRs, (iii) the other is a non-nominal element able to bind personal pronouns. Cross-linguistically, similar structures were proposed in two independent strains of research. On the one hand, Charnavel (2019, 2020) proposes a similar structure with a logophoric operator in C and a null pronoun in its specifier in order to account for the behavior of anaphors in French. On the other hand, Diercks (2013) and much subsequent literature on 'say'-based complementizers in African languages introduce largely the same structure in order to derive complementizer agreement. The present proposal ends up with the same left-peripheral infrastructure, only differing with regard to the morphosyntactic features borne by the left-peripheral elements.

6 Conclusion

In this article I propose a derivation of verbal person features in finite embedded reports in the Nakh-Daghestanian language Aqusha Dargwa, which shows an unusual profile of verbal person agreement, contingent on the reference of the pronoun it

agrees with. Separating the observed patterns of person agreement in embedded reports into two different modes—plain φ-feature mode and logophoric mode—I concentrate on the latter and propose that two different left-peripheral elements—a logophoric context operator and a null pronoun—are necessary to derive agreement shift. Person agreement is argued to arise as a morphological response to the combination of a person feature with [LOG] coming from the logophoric operator or to the [ATTITUDE HOLDER] feature transmitted to the pronoun from the null logophoric subject. Indexical shift arises via binding of a personal pronoun by the logophoric operator, activating the transmission of the [LOG] feature from the binder to the pronoun, which is why shifted pronouns always trigger person agreement. 1.P person agreement with unshifted 2.P pronouns and 3.P LDRs arises through a different mechanism—binding by the null left-peripheral pronoun—which ultimately allows the transmission the [ATTITUDE HOLDER] feature, reflected in morphology as 1.P agreement.

Over the past two decades, a significant number of other languages have been reported to display indexical shift effects in embedded reports (see references in Section 1 above). In many of them, the behavior of person agreement seems to correlate at least in part with the interpretation of the agreeing pronoun. For example, the data from Uyghur (Turkic) cited by Shklovsky and Sudo (2014) suggests that unshifted personal pronouns in embedded reports cannot trigger person agreement in that language, paralleling facts described here for Aqusha. In Tamil and other Dravidian languages, the 3.P anaphor coindexed with the matrix attitude holder determines "monstrous" 1.P agreement (Messick to appear), the situation I also document here for Aqusha. In sum, while these two types of pronoun–agreement

mismatch—personal pronouns failing to trigger person agreement and non-1.P pronouns triggering 1.P agreement—have been observed elsewhere, Aqusha instantiates a more complex type where both these mismatches are observed. I believe that the machinery required to derive a more complex system is also likely to derive less complex systems observed in other languages, possibly with some simplifications in the left-peripheral infrastructure in simpler agreement systems. Conversely, the accounts proposed for languages with less potential for pronoun–agreement mismatches are unlikely to derive the full paradigm of person agreement in Aqusha embedded reports. In addition, some other properties not present in other languages, such as shifted agreement with the transitive direct object (not discussed here for the sake of simplicity) also complicate the picture. For example, the ability of the 3.P reflexive in the direct object position to trigger 1.P agreement in Aqusha makes Sundaresan's (2011) account of Tamil monstrous agreement inapplicable to Aqusha, since it is simply not designed for a language with monstrous object agreement (cf. Messick to appear).

While I cannot afford a full discussion of alternative proposals, the present study seems to be the one of very few dealing specifically with agreement effects in embedded reports. Most of the previous research has concentrated on the derivation of indexical shift, which can be thought of as either a semantic or a morphosyntactic phenomenon. The unusual behavior of agreement features in Aqusha unambiguously points in the direction of a morphosyntactic account where the left periphery can manipulate a formal feature responsible for person agreement and derive indexical shift at the same time. The present proposal can thus be viewed as an attempt to build a working model of what Deal (2018) calls *agreement reprogramming*. The analysis

proposed here is unlikely to be the last word in the empirical description and theoretical understanding of agreement shift in Aqusha, not to mention extending it to other languages. I hope, however, that whatever refinement and modification may be required, the present proposal is a step in the right direction.

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[1] The abbreviations follow the Leipzig Glossing Rules (https://www.eva.mpg.de/lingua/resources/glossing-rules.php). Examples from Aqusha Dargwa below are presented with simplified interlinear glosses to help the reader concentrate on agreement patterns discussed here, without distracting them with complexities of Aqusha morphology. Arabic numbers indicate person,

parentheses indicate zero morphological exponence. Verbs cited in the article are given in the infinitive.

[2] Aqusha Dargwa belongs to the Dargwa branch of the Nakh-Daghestanian family and has approximately 50,000 native speakers living in the Akushinskij and Levashinskij districts of Daghestan (Northern Caucasus, Russian Federation). Grammatical descriptions of the language include van den Berg (2001), Abdullaev (1954), Abdullaev et al. (2016). My knowledge about the phenomenon discussed in this article comes from elicitation work with native speakers conducted in 2015, 2016, and 2021, and from examination of a written corpus of original fiction prose in Standard/Aqusha Dargwa (ca. 2 million tokens). The specific examples shown here were elicited from three native speakers of Aqusha in the village of Levashi in one-on-one sessions in March 2016, using translation of sentential stimuli in Russian, acceptability judgments on modified translations, and informal discussion of scenarios (shifted/unshifted interpretation) where specific examples were considered appropriate. A descriptive account of indexical shift and person agreement in embedded reports in closely related Sanzhi Dargwa can be found in Forker (2019). Indexical shift has also been documented in some other Nakh-Daghestanian languages, such as Archi (Daniel 2015), Tabasaran (Bogomolova 2012), and Tsez (Polinsky 2015).

[3] The verb *hanbikes* 'think', which figures prominently in the examples in this article, is a verb that combines with a subject in dative case; it never agrees in person with its dative subject. The verbs *bures* 'tell' and *es* 'say', also appearing in the examples below, are transitive verbs with an ergative subject, which triggers the

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appropriate person agreement. Embedded clauses in the examples throughout the article are intransitive with an absolute subject.

[4] Although person agreement in embedded reports is illustrated above mainly using examples with periphrastic finite forms based on auxiliaries, the same effects, including pronoun–agreement mismatches, are also observed in finite clauses based on synthetic forms of lexical verbs, as can be seen in the examples below.

(i) *rursi* [*nu* *la̱rq'-a̱n* *ili*] *uruχk'uli* *sa-r*

girl   I   come-FUT.3   COMP   fearing   AUX-F.SG.3

'The girl fears that I will come.'

(ii) *rursili* [*sa-r* *la̱rq'-a̱s* *ili*] *burib*

girl   self-F.SG   come-FUT.1   COMP   told.3

'The girl$_i$ said that she$_i$ would come.'

[5] The separation of the paradigm shown above into two different modes of agreement—φ-feature and logophoric mode—is supported by Tabasaran, a distantly related language of the Lezgic branch of Nakh-Daghestanian, which has only the logophoric mode of agreement in embedded reports, that is, only the options shown in the last (logophoric) column are grammatical in that language (Natalia Bogomolova, pers.com.).

[6] The example in (10b) can be analyzed in two different ways. On the one hand, we can think of the embedded 1SG pronoun as shifted, that is, referring back to the matrix attitude holder, just like in (10a). However, since the matrix attitude holder is also that same 1SG pronoun, we can think of the embedded 1SG pronoun as unshifted

and referring directly to the actual speaker. This analytical choice does not affect the predictions I make about person agreement in the logophoric mode, since the embedded pronoun is coconstrued with the matrix attitude holder and should thus trigger 1.P agreement in both analyses.

[7] A short comment may be needed here with regard to the unshifted nature of the 2SG pronoun in this example. Given that the embedded pronoun refers to the same participant as the matrix subject, one might count this as an instance of a *shifted* pronoun, just like the shifted 1SG pronoun in (10b), which refers to the matrix subject. However, what determines the shifted *resp.* unshifted status of a personal pronoun is not coconstrual with an argument of the matrix clause *per se*, but the perspective from which the person features of that pronoun are interpreted. Pronouns with the 2.P feature denote the addressee of a speaker. In unshifted 2SG pronouns, that 2.P feature is interpreted in the context of the actual speech act; an unshifted 2SG pronoun thus denotes the addressee of the actual speaker (me uttering the reported speech construction). In shifted 2SG pronouns, the 2.P feature in interpreted in the context of the speech act described in the matrix clause; a shifted 2SG pronoun thus refers to the indirect object of the matrix clause. In (13), the embedded 2SG pronoun clearly refers to the addressee of the actual speaker: I use the pronoun *you* to refer to the person I am talking to. By contrast, the addressee of the reported speech act is not even defined here, since the matrix attitude verb does not subcategorize for an addressee argument.

[8] That the LDR is 3.P expression can be seen from the fact that it can be bound by a 3.P antecedent in reflexive constructions but not by a 1.P or 2.P pronoun; see (i) and (ii).

(i) *rasul$_i$ sune-či$_i$ dukarwirħuli   sa-j*

Rasul   self.SG-at   laughing   AUX-M.SG.3

'Rasul is laughing at himself.'

(ii) *nu$_i$ { nab-či$_i$ /   *sune-či$_i$ }   dukarwirħul-ra*

I   I-at   self.SG-at   laughing-1

'I am laughing at myself.'

In what follows, I assume that the LDR enters the derivation pre-specified for φ-features, thus siding with Rudnev's (2020) position on reflexives in related Avar (see also Preminger 2019 and Murugesan 2020 for a more general theoretical discussion of φ-features in anaphors).

[9] Most work done on person features in embedded reports also considers it necessary to demonstrate that the phenomenon described cannot be reduced to (partial) quotation (see Schlenker 2003, Anand and Nevins 2004, Sundaresan 2011, Shklovsky and Sudo 2014). The usual diagnostics include long-distance extraction from embedded reports, long-distance NPI licensing, availability of indexical shift only in certain configurations (matrix verbs, complementation), Shift Together, and some others. For the reasons of space, however, I will not provide detailed argument against quotation in this article, including Maier's (2014) "mixed quotation" theory, specifically pointed out by an anonymous reviewer. The paradigm shown above is complex enough to put the burden of proof on those who propose to analyze it in terms of quotation. I will point out just one issue that I think is particularly resistant to quotation analyses. On a quotational approach, Aqusha clearly allows one-word

quotes, such as a "quoted" verb in the 3.P form combining with the 1SG pronoun in (11a). To successfully account for person agreement in Aqusha, any quotational theory should be able to restrict what can or cannot be quoted depending on the context. In particular, it would interesting to see why we don't have the opposite pattern: a "quoted" 1.P pronoun with a regular 3.P form in examples like (10a)?

[10] Nothing crucial hinges on this specific implementation of the context component within personal pronouns. Alternatively, 1.P and 2.P pronouns could be represented as a conjunction of an individual pronoun that carries the corresponding person feature and a context pronoun that determines the context of interpretation of that individual pronoun, as proposed in the semantic literature (Schlenker 2003, 2004; see also Sudo 2012). What is crucial here is that the syntactic representation of personal pronouns includes a component responsible for their context of interpretation.

[11] The φ-feature mode of person agreement in embedded reports can be implemented in two different ways in the present system. On the one hand, the syntactic machinery behind the φ-feature mode can be identical to what we have in the logophoric mode, differing only in rules of Vocabulary Insertion that would be insensitive to the feature [LOG] and thus would yield person agreement in morphology regardless of the presence of [LOG]. On the other hand, the left-peripheral infrastructure built here to account for the agreement effects in embedded reports might be optional, yielding logophoric agreement when present, but regular φ-agreement when absent. It should be noted, however, that the logophoric pattern seems to be by and large preferred over the φ-feature agreement in embedded reports. I am not aware of any immediately observable semantic differences between the two

agreement modes, though subtle, yet unknown, interpretational contrasts may well be associated with them.

[12] I remain agnostic as to whether root clauses host the same left-peripheral infrastructure as proposed here for embedded reports, containing a logophoric C-head and a null pronoun in its specifier. If finite clauses do have this infrastructure, the context index in the embedded report waits until the matrix context operator merges and binds it, thus ending up interpreted as the actual speaker. Alternatively, the context index may receive the default interpretation in the context of the actual speech act (discourse-bound by the actual speech act context).

[13] An anonymous reviewer notes that it is not clear what determines whether the binding relation is established, as proposed for examples (19) and (20) above, or fails to be established, as proposed here for examples (22) and (23), given that the structural conditions are identical irrespective of particular reading. My approach here is similar to what is observed cross-linguistically with long-distance reflexives: even though the reflexive can be bound by the closest subject, it does not have to (see also example [31] below). Likewise, the context index inside a personal pronoun can be bound by the closest logophoric operator in C or remain free.

[14] This view assumes that person features on T receive morphological exponence after the left-peripheral elements have been merged and have transmitted their features to the pronoun. This can be implemented using a two-step model of Agree (Arregi and Nevins 2012). At the first step, Agree-Link, T establishes an Agree relation with the pronoun in the subject position, whereby their φ-feature sets are unified. Assuming a phase-wise Spell-Out of φ-features in postsyntax (Chomsky 2000, 2001), no actual exponence appears on T at this step of derivation. Rather, by

virtue of feature sharing, T receives permanent access to the subject's features and thus is potentially able to mirror any change in the feature specification of the pronoun until both are sent to Spell-Out. This is how after the functional head C and a null pronoun in Spec,CP merge and transmit their features to the pronoun, the person probe on T acquires the same features. The entire embedded TP is sent to Spell-Out after the merger of the matrix *v*, where the second step of Agree, called Agree-Copy, occurs, whereby the features on T receive morphological exponence by Vocabulary Insertion rules in (18).

[15] While the logophoric *pro* can in principle be anteceded by a more distant attitude holder, as example (31) demonstrates, some additional restrictions apparently arise when both potential antecedents match in φ-features, as shown in (i).

(i) *rasulli$_i$ ib*   [*ʔalis$_j$ hanbikilri* [*sa-j$_i$*   *uhna kaili*

    Rasul said.3 Ali   thought.3   self-M.SG inside put

{ *sa-j*   / $^{?}$**sa-j-ra* }   *ili*]]

  AUX-M.SG.3   AUX-M.SG-1 COMP

'Rasul$_i$ said that Ali$_j$ was thinking that he$_i$ had gotten arrested.'

In (31), the intermediate subject is different in φ-features (feminine singular) from the uppermost subject (masculine singular), so the masculine singular LDR in the most embedded clause unambiguously refers to the uppermost subject. In contrast, the uppermost subject and the intermediate subject are both masculine singular in (i). 1.P agreement is disallowed here under the intended coreference between the LDR and the

uppermost subject, indicating that the logophoric *pro* in the left periphery of the most embedded clause cannot be anteceded by the uppermost subject in this example. I leave the question about possible antecedents for the null logophoric pronoun for future research.