OVERT PRO IN GÃ*

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This paper presents data from Gã (Kwa, Niger-Congo language spoken in Ghana) that show that controlled subjects of non-finite predicates must be overt in this language. The presence of an overt pronominal subject in a non-finite embedded clause is surprising from the perspective of languages such as English and French, where such subjects must be covert (PRO). We provide evidence that the overt pronoun in Gã patterns with obligatorily controlled PRO (Hornstein 1999; Landau 2013) and argue for an analysis that adopts Kratzer’s (2009) minimal pronoun. Unlike other instances reported in the literature, in Gã the overt PRO is not associated with focus and must be overtly realized. We compare Gã with two other Niger-Congo languages with overt PRO (Ewe and Bùli) and explore the differences among these languages.

Keywords: Gã, control, PRO, infinitival predicates, minimal pronouns

1. Introduction
In English, non-finite clauses appear to lack an overt subject. Certain verbs select a sentential infinitival complement whose external argument must be coindexed with a matrix argument, as illustrated in (1) from English below.

(1) a. Cindy remembered [PRO to buy a book].
    b. Cindy persuaded Mark [PRO to buy a book].

PRO is the null DP category theorized to take up the external theta role of the embedded infinitival verb and act as subject of the infinitival complement (Chomsky 1981). It can be bound by the main clause subject (subject control) as in (1a) or the main clause object (object control) as in (1b). This null category offers a principled solution for the Extended Projection Principle (EPP), which requires that all clauses have a subject, and the Theta Criterion, where each theta role must be assigned to one and only one argument.

In some West African languages like Ewe (Satik 2021), Bùli (Sulemana 2019, 2021) and Gã, however, there is an obligatory overt pronoun where we expect a PRO.1 Relevant examples are presented in (2)-(5).

(2) Ewe (Satik 2021:5)
    Agbei dzagbagba be yè-a dzo.
    Agbe try COMP yè-POT leave
‘Agbe tried to leave.’

(3) Bùli (Sulemana 2021:96)
    Asoukè tieri *(wà-i) dà gbaŋ
    Asouk remember 3SG buy book
‘Asouk remembered to buy a book.’

1 Unless otherwise indicated, all Gã data are from the first author and consultations with other native speakers of Gã. The first author elicited data through face-to-face and online interview sessions where participants were given English sentences to translate into Gã and were asked to provide grammaticality and semantic acceptability judgements for Gã sentences.
In the above examples, the embedded overt pronoun is co-referential with the matrix subject. While in this article we focus on data from Gã, in Section 4.2 we return to Ewe and Buli.

PRO was originally posited to be phonetically null (Chomsky 1981). As mentioned above, in some languages an overt pronoun can appear in the position of PRO. This phenomenon has been discussed extensively by Rizzi (1982) and Cardinaletti (1999) for Italian, Raposo (1987) for European Portuguese; Szabolcsi (2009) for Hungarian and Modern Hebrew; Torrego (1998), Mensching (2000), and Alonso-Ovalle and D’introno (2001) for Spanish; and Corbalán (2018) for Brazilian Portuguese (see the examples in (6) and (7)). Outside of Romance languages, overt reflexive pronouns and some personal pronouns may occur in the position of PRO in Korean (Madigan 2008), as illustrated in (8).

(6) Brazilian Portuguese (Corbalán 2018:18)
Pedro, quer [ele] chegar infcedo
Peter wants he.NOM arrive-INF early
‘Peter wants to arrive early.’

(7) Spanish (Corbalán 2018:18)
Juan, prometió a su profesor [hacer él los deberes]
John promised to his teacher do.INF he.NOM the homework
‘John promised his teacher to do the homework by himself.’

(8) Korean (Madigan 2008:243)
Inho-ka Jwuhi-eykey caki1/*2-ka cip-ey ka-la-ko mal-ha-yess-ta
Inho-NOM Jwuhi-DAT self-NOM home-LOC go-IMP-C tell-PST.CDC
(lit.) ‘Inho1 told Jwuhi2 SELF1 to go home.’

In all of the above languages, the overt pronoun is optional and is used to indicate focus. This article adds to the literature on overt PRO by presenting data from Gã. Unlike the languages mentioned above, PRO is obligatorily realized as an overt pronoun in Gã and is not associated with focus (see Section 3). In this article, we demonstrate how this pronoun shares the signature properties of the obligatorily controlled PRO. We follow other authors (e.g., Madigan 2008, Landau 2013, 2016) and argue that PRO is a minimal pronoun (Kratzer 2009) that gets its features via binding by an argument in the matrix clause. Moreover, we suggest that the obligatory overtness of PRO in Gã is due to an EPP feature on Spec, TP. This paper therefore contributes to the literature on PRO and control and to the literature on the overt realization of normally covert phrases (Landau 2006, van Urk 2015). Moreover, we compare and contrast the Gã data with data from Ewe and Buli.

This article is laid out as follows: In Section 2, we introduce the reader to the syntax of Gã: the basic word order, the position of negation, aspect, and other morphology relevant to our analysis. Section 3 presents the data on the overt pronouns of infinitival predicates of Gã. We discuss the properties of the overt pronoun and present evidence that it is a subject (not an agreement marker) and that it is not a resumptive pronoun. In Section 4, we then demonstrate how the overt pronoun patterns with Obligatory Controlled PRO as described by Landau (2013). The analysis of the overt pronoun in
Gã as a minimal pronoun that receives its features via binding is presented in Section 5. We also argue against the movement analysis of control (Hornstein 1999) and discuss overt PRO in Ewe and Bùlì. While the Ewe facts are quite different (overt PRO is a logophoric pronoun), Bùlì and Gã bear striking resemblance. Crucially, Bùlì also has overt subjects in raising constructions. This discussion leads us to propose that the EPP on T in Bùlì has a phonological requirement that makes any material in the subject position obligatorily overt. In Gã, however, it is only the minimal pronoun that must be overtly realized. Section 6 concludes the paper.

2. Gã

In this section, we introduce the Gã language and the core syntactic and morphological properties relevant to this article. Gã belongs to the Kwa sub-group of the Niger-Congo language family. It is estimated that about 3.4% of Ghana’s population (600,000 people) speak Gã as their first language (Lewis, Simons & Fennig 2015). Gã is a tonal language that has three major tonal variations: high tone, low tone, and mid-tone. There is lexical as well as grammatical tone; the latter shows distinctions in features such as tense and aspect. In this work, a high tone will be marked as [á], a low tone as [à], and a mid-tone as [ā]. Gã is a non-pro-drop language with an SVO basic word order, as illustrated in (9).

(9) Aku/*pro mìì-hè wòlò
    Aku/pro PROG-buy book
‘Aku is buying a book’/*pro is buying a book’.

As example (9) shows, replacing the subject with a silent pro renders the sentence ungrammatical, hence an overt subject is obligatory. Turning now to the verb, all verbs in Gã are monomorphemic roots. Each verb root carries its lexical tone and may be preceded by a future, progressive, or a perfective prefix or followed by the habitual suffix. The default interpretation of a verb root is past tense. The example below illustrates different possible forms of the verb yè ‘eat’:

(10) Aku yè/mìì-yè/bāā-yè/ ë-yè/ yè-ɔ̀ ámádãã
    Aku eat/PROG-eat/FUT-eat/PFV-eat/eat-HAB plantain
‘Aku ate/ is eating/ will eat/ has eaten/eats plantain.’

There is no agreement on the verb, as shown in (11).

(11) Mi/Wì/Ọ/Nyè/Ẹ/Amè téè skúl mrá
    1sg/1pl/2sg/2pl/3sg/3pl go school early
‘I/we/you/he/she/they went to school early.’

Finally, negation encodes tense and aspect in Gã as a portmanteau morpheme. This morpheme is realized as a suffix on the verb in finite clauses, as in examples (12-14).

(12) Habitual/Progressive
    Aku hè-ëè wòjii
    Aku buy-NEG.PROG books
‘Aku does not buy books.’

(13) Future
    Aku hè-ŋ wòjii lè
    Aku buy-NEG.FUT books DET
‘Aku will not buy the books.’
There is no infinitival morphology in Gâ, but we claim that in control structures the embedded bare verb is non-finite. As a first point of comparison, the bare verb in Gâ is interpreted as past tense (as noted above). In control contexts, however, the bare verb is interpreted as irrealis, not past (15).

Second, finite complement clauses in Gâ appear with the obligatory complementizer ̀àkè and the embedded verb can carry overt tense marking.

In control clauses, the complementizer ni is obligatory and the verb cannot take any tense marking.\(^3\)

We take the absence of tense marking as evidence that the embedded predicate is non-finite. Finally, some authors (e.g. Dakubu 2004; Ameka & Kropp Dakubu 2008; Campbell 2017) claim that the embedded verb in control clauses is subjunctive. We see two reasons for not adopting this analysis. First, in subjunctive clauses there is a consistent high tone on the verb as well as on the subject pronoun, as seen in (18). In control clauses, however, the verb may carry a low tone (as in example (17) above and (19) below).

Second, in subjunctive clauses an embedded pronominal subject may be anaphoric or disjoint with a matrix argument, as illustrated by (20). As we will see in detail in Section 3.2, however, in control clauses the overt embedded subject pronoun must be interpreted as anaphoric with an argument in the matrix clause, as in (21).

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\(^3\) Tàò ‘want’ is the only control verb where the complementizer is optional. This seems to be an idiosyncrasy with this specific verb. While ̀àkè systematically appears with tensed clausal complements, ni is compatible with both tensed and non-finite complements.
Aku bàá-sùmò ní èjì shì wò
‘Aku will like to leave tomorrow/ Aku will like her to leave.’

Aku FUT-like COMP 3SG leave.SBJV tomorrow

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We therefore conclude that control clauses are not subjunctive. While the literature is not extensive, there is some work on control in the previous literature on Gã. Dakubu (2004), Ameka & Kropp Dakubu (2008), and Campbell (2017) propose that volitional verbs take subjunctive complements, where the embedded subject is also marked as subjunctive. As we have just seen, however, control complements do not pattern morphologically with subjunctives and the coreference properties are different. Korsah (p.c.) suggests what we are calling overt PRO is in fact an agreement affix that appears in embedded clauses under a matrix volitional verb. We return to Korsah’s suggestion in Section 3.1.1. These earlier proposals do not investigate embedded clausal complements in detail; therefore, this paper fills a gap in the Gã literature.

3. The overt pronoun in Gã infinitival predicates

In this section, we present the overt pronoun data from Gã. For the purposes of this paper, the embedded subjects in Gã infinitival predicates will collectively be referred to as THE OVERT PRONOUN, representing the overt PRO phenomenon under discussion. We focus here on the core syntactic properties of the overt pronoun, which we argue appears in the subject position of the embedded infinitival. In Section 4, we will show how the overt pronoun patterns with obligatorily controlled PRO.

The examples in (22) illustrate the overt pronoun in the subject position embedded under three verbs: táò ‘want’, hië-kà-nò ‘hope’, and mià-mì-hiè ‘try’. The embedded verb appears in its bare root form; as mentioned above, we analyze this bare root form as the infinitive in this paper. In (22a) the complementizer is optional, in (22b,c) it is not (see footnote 3). Note that the pronoun itself is not optional and must be overtly realized.

(22) a. Mì-i táò (nì) *(má) nà bò
   1SG-PROG want COMP 1SG see.INF 2SG
   ‘I want to see you.’

b. Mì hië-kà-nò nì *(má) yà skúl gbi kò
   1SG face-place-upon COMP 1SG go.INF school day certain
   ‘I hope to go to school one day.’

c. Mì mià-mì-hiè nì *(má) ná shinàá lè
   1SG squeeze-my-face COMP 1SG close.INF door DET
   ‘I tried to close the door.’

In these sentences, the matrix clause contains a finite control verb that selects for an embedded infinitival, and we see an overt anaphoric pronoun in the subject position of the infinitive complement clause. The infinitive embedded subject is said to be CONTROLLED by the matrix subject because the former is understood as being coreferential with the latter.

The overt pronouns do not appear in first-person singular only. They can appear in other persons and in the plural. For example, (23a) shows ò ‘2sg’, (23b) has nyè ‘2pl’ and (23c) illustrates âmé ‘3pl’.

(23) a. Mì*i táò ni *(má) nà bò
   1SG-PROG want COMP 1SG see.INF 2SG
   ‘I want to see you.’

b. Mì hië-kà-nò nì *(má) yà skúl gbi kò
   1SG face-place-upon COMP 1SG go.INF school day certain
   ‘I hope to go to school one day.’

c. Mì mià-mì-hiè nì *(má) ná shinàá lè
   1SG squeeze-my-face COMP 1SG close.INF door DET
   ‘I tried to close the door.’
On the other hand, the subject of the embedded infinitival must be a pronoun: it cannot be realized as some other kind of DP, such as a proper name, as illustrated in (24).

(24)  a. *Amele, i kài ni Amele, i/hè wòlò Amele, remember COMP Amele-buy-INF book
     b. *È i kài ni Amele, i/hè wòlò 3SG remember COMP Amele-buy-INF book

Finally, the overt pronoun is not emphatic or focussed, unlike what has been documented in languages such as Spanish and Korean (see Section 1). Emphatic and focussed pronouns in Gã are always realized in the objective case form. The example below illustrates the emphatic use, where the objective form of the pronoun lè, together with dięntsè ‘self’, appears preceding the subject pronoun è.

(25) [Lè, dięntsè] ètì yè niyenii le
     3.ACC herself 3.NOM eat food DET
     ‘She ate the food herself.’

We do not attempt an analysis of this construction here, but we simply point out that the overt pronoun is never in the objective form and does not appear with dięntsè. Focus in Gã can be expressed via placing the pronoun at the beginning of the clause, followed the focus marker nì. As with emphatic pronouns, the pronoun appears in the objective form. 4

(26) Lètì ni ètì jù shikà le
     3.ACC FOC 3.NOM steal money DET
     ‘It is she who stole the money/She is the one who stole the money.’

Again, an analysis of focus is beyond the scope of this paper, but this example clearly illustrates the difference between a focussed pronoun and the overt pronoun that is under discussion.

The data presented above are examples of subject control, although instead of a PRO there is an overt pronoun. These overt pronouns also show up in the embedded clauses of verbs that typically trigger object control in the embedded infinitival clause: wá ‘help’, kényá ‘urge, encourage’, dái ‘force’, and lákà ‘persuade’. 6 The overt pronoun in these contexts must be coreferential with the object of the matrix clause, as illustrated below:

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4 The embedded pronoun below the focus marker is a weak subject pronoun (see Renans 2016, Campbell 2017).
6 The verb lákà can mean ‘coax’, ‘deceive’, or ‘persuade’ depending on the context.
We now turn to other properties of the overt pronoun. We first show that it is indeed in subject position and then we argue that it is not a resumptive pronoun.

3.1. Subj ectionhood of the overt embedded pronoun. It may be argued that PRO is indeed null in Gã and that the overt pronominals in the embedded infinitive clause are in fact agreement affixes on the verb (Korsah, p.c).7 This view, however, faces two challenges, as we show in the following sections. First, there is no agreement in Gã; second, the overt pronoun can be modified; third, the position of negation demonstrates that the overt pronoun not an affix. We therefore conclude that the overt pronoun sits in the subject position of the embedded control clause.

As mentioned in Section 2, there is no agreement on verbs in Gã, whether in finite or non-finite clauses. Thus, the verb tèè ‘go’ remains invariant in (28), regardless of the person and number of the subject.

Therefore, it seems unlikely that the overt pronoun in control is agreement, as agreement is otherwise lacking in the language. Moreover, if the overt pronoun were agreement, then we might expect to realize the pronoun together with an overt DP subject. This doubling is not possible, whether in matrix or control clauses, as shown by the ungrammaticality of (29) and (30) with an overt pronoun in addition to the subject.

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7 An alternative view is that the overt pronoun is non-affixal agreement. While such cases have been argued to exist in the literature, they always allow overt realization of the argument DP (see Auger 1995 for discussion).
While these data are suggestive, it could be the case that Gã only has verbal agreement when the subject is null. We therefore turn to other arguments.

A second argument against treating the overt pronoun as agreement comes from modification. If the pronoun were an agreement affix, it would resist modification. But the example below shows that modification of the overt pronoun is in fact possible, for example by pe ‘only’ in (31).

(31) Gbekbii, lé nyé ni ámè; pe ámè; hè shiá
children DET manage COMP 3PL only 3PL buy.INF home
‘Only the children managed to buy a home.’

Modification by pe ‘only’ requires doubling, as shown above. The first instance of the pronoun ámè is presumed to be the overt pronoun. The second carries different tones (ámè). We do not explore the syntax of this modificational structure, but we take it to show that the overt pronoun is not agreement.

The third argument in favor of the subjecthood status of the overt pronoun comes from its syntactic position with respect to negation. As we saw in Section 2, negation is realized as a suffix (-ee in (32)) on tensed verbs.

(32) Aku hè-èè wójii
Aku buy-NEG.PROG books
‘Aku does not buy books.’

Negation is realized pre-verbally as ká in three contexts: imperatives (33a), subjunctives (33b) and with infinitival predicates (33c).

(33) a. Kà-á yà!
neg-irr go
‘Don’t go!’

b. É ká bá bié.
3SG NEG come here
‘He should not come here.’

c. Jojo kplɛnò ni è ká hè wòlò lè
Jojo agree COMP 3SG NEG buy.INF book DET
‘Jojo agreed to not buy the book.’

The example in (33a) demonstrates that pre-verbal negation is not an affix – it can take the irrealis suffix -á. Extending this reasoning to (33c), we can determine that the overt pronoun è is also not an affix, as negation appears between the pronoun and the verb. We therefore conclude that the overt pronoun is not attached to the verb as an agreement marker but is in the subject position.

3.2. The overt pronoun is not a resumptive pronoun. As a final alternative, we consider an analysis that treats the overt pronoun as a resumptive pronoun. Gã allows for resumptive pronouns in relative clauses and serial verb constructions. However, these pronouns are different from the ones found in infinitival clauses. The resumptive pronoun in Gã is instantiated as a weak subject pronoun in relative clauses (34) and serial verb constructions (35).
(34) Náá yòò le ni kèjì nyùṃmè nè le è le è le
Here woman DET COMP whenever rain fall DET 3SG cry-HAB DET
‘This is the woman, whenever it rains she cries.’

(35) Akú/MIhè sáñè le è/mì yè Akú/1SG buy matter DET 3SG/1SG eat
‘Aku/I believed the matter.’

In (34), the resumptive pronoun è is co-referent with yòò le ‘the woman’ and in (35), it is co-referent with Aku. A distinction between the resumptive pronouns in (34) and (35) and the overt pronoun is the low tone agreement between the resumptive pronoun and the embedded verb. The overt pronoun shows no such tonal agreement with the embedded verb, as shown in (36).

(36) Ameele käì ni è-yè kō Ameele remember COMP 3SG-eat.INF kenkey
‘Ameele remembered to eat kenkey.’

Given this distinction, we conclude that the overt pronoun found in infinitival clauses is not a resumptive pronoun.

Summing up, this section has provided evidence that the overt pronoun in infinitival clauses is in the subject position and that it is not a form of agreement or a resumptive pronoun. We therefore conclude that the overt pronoun is a subject. In the next section, we consider the interpretation of the overt pronoun and show that it is the overt counterpart of PRO.

4. The overt pronoun as Obligatory Controlled PRO

In this section, we present critical arguments from the signature properties of obligatorily controlled PRO (Landau 2013) to show that the overt pronoun exhibits properties identical to PRO: long-distance control of the overt pronoun is not possible, the overt pronoun must be understood as de se, only a bound variable reading of the overt pronoun is possible, and the overt pronoun under ellipsis must be construed sloppily. Based on these diagnostics, summarized in Table 1, we conclude that the overt pronoun is the lexical counterpart of PRO.8

8 This paper focuses on obligatorily controlled subjects. Sentences with an arbitrary PRO in English often translate in Gà to a different structure from the control clauses under investigation, such as the nominalizations in (i) and (ii):
(i) Vòòtí-mò sā vote-NMLZ good/important
‘It is good/necessary/important to vote’
(ii) Gbékè-nyiè-mò bò-ókèmè-tòò è-hí-ì night-walk-NMLZ 2SG-one-alone PRP-good-NEG
‘To walk alone at night is not good (not a good idea).’

Other potential examples of arbitrary PRO in Gà involve the impersonal pronoun [á], as in (iii). We leave this topic to future research.
(iii) É sā nì á-há mò nò 3SG fitting/good COMP IPP-give man upon
‘It is good to give. Giving is good.’
Table 1: Summary of overt pronouns properties versus PRO.

<table>
<thead>
<tr>
<th>Properties</th>
<th>The Overt Pronoun</th>
<th>Obligatory Controlled PRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must be c-commanded by its</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>antecedent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long distance antecedent</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Sloppy reading only</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td><em>de se</em> reading only</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Subject control</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Object control</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

4.1. The overt pronoun requires an antecedent. As mentioned earlier, the embedded overt pronoun must be co-referential with a matrix argument.

(37) a. Aku kāi nì éri/hè wòlò
    Aku remember COMP 3SG buy.INF book
    ‘Aku remembered to buy a book.’

b. Aku wá Ama/nì éri-yà skúl
    Aku help Ama COMP 3SG-go.INF school
    ‘Aku helped Ama to go to school.’

c. Aku kai idàk émè báá-he wòlò lè
    Aku remember COMP 3PL FUT-buy book DET
    ‘Aku remembered that they will buy a book.’

In (37a) the co-reference is with a matrix subject and in (37b) it is with a matrix object. In contrast, in finite contexts the embedded subject can have a free reading, as in (37c).

4.2. The overt pronoun must be c-commanded. It has long been observed that PRO must be c-commanded by its antecedent (e.g., Williams 1980). This is also the case with the overt pronoun, as in the examples below.

(38) a. [Jojo nyèmiyòò lè] hiékpanò nì éri shá tsènsi lè
    Jojo sister DET forget COMP 3SG wash.INF utensils DET
    ‘Jojo’s sister forgot to wash the utensils.’

b. [Tsèlói le gbekebii lè] hiékpanò nì ámènù shá tsènsi lè
    teachers DET children DET forget COMP 3PL wash.INF utensils DET
    ‘The teachers’ children forgot to wash the utensils.’

In (38a) co-reference is only possible with the possessive phrase *Jojo nyèmiyòò le* ‘Jojo’s sister’ and not just *Jojo* (the possessor). Similarly, in (38b) the pronoun *ámè* cannot take *tsèlói le* ‘the teachers’ as an antecedent, as *tsèlói le* ‘the teachers’ does not c-command the pronoun. In tensed complement clauses, on the other hand, the pronoun may co-refer with a non-commanding antecedent, as in (39).

(39) [Jojo nyèmiyòò lè] hiékpanò ákè èri/ámènù báá-shá tsènsi lè
    Jojo sister DET forget COMP 3SG/3PL FUT-wash utensils DET
    ‘Jojo’s sister forgot that he/she/they will wash the utensils.’

The singular pronoun *è* may refer to Jojo, Jojo’s sister, or someone else in the discourse. The plural pronoun refers to a group of people that may include Jojo and Jojo’s sister.
4.3. Long distance binding of the overt pronoun is not possible. From the examples below, we see that the embedded pronoun of the infinitival cannot have a long-distance antecedent. The subject of these clauses must pick their antecedent in the immediately dominating clause. Thus in (40) the subject Debo is the only possible antecedent.

(40) a. Jojo iké akè Deboj hièkpánò ni èvi hà wòlò lè
   Jojo say COMP Debo forget COMP 3SG-buy.INF book DET
   ‘Jojo said that Debo forgot to buy the book.’

b. Aku iké akè Debo-tào ni èviñ-yà skúl gbi kò
   Aku say COMP Debo-want.INF COMP 3SG-go.INF school day certain
   ‘Aku said that Debo wants to go to school one day.’

c. Mi iké akè Deboj hièkpánò ni èj/*má hà wòlò
   1SG say COMP Debo forget COMP 3SG/*1SG buy.INF book
   ‘I said that Debo forgot to buy the book.’

Moreover, (40c) shows that even if we try to force a long-distance antecedent by putting a first-person pronoun in the infinitival clause, the result is ungrammatical. In contrast, in finite embedded clauses a long-distance antecedent is possible.

(41) Jojo iké akè Deboj hièkpánò ni èyìbá hà wòlò lè
    Jojo say COMP Debo forget COMP 3SG FUT-buy book DET
    ‘Jojo said that Debo forgot that she/he will buy the book.’

The pronoun in the embedded clause in (41) may refer to Jojo, Debo, or some other person.

4.4. The overt pronoun must be construed sloppily under ellipsis. In this section, we show that the overt pronoun patterns with PRO in being interpreted as a bound variable. This property is manifested in sloppy readings under ellipsis and in focus constructions. In the literature, a sloppy reading is defined as a case where the identity of the pronoun in an elided VP is interpreted as distinct from the pronoun in the antecedent VP (Partee 1975; Lobeck & Haegeman 1996). For example, in English VP ellipsis, as in example (42), the elided VP can be interpreted in at least two ways, as follows:

(42) John scratched his arm and Bob did too
    a. **Strict reading**: John, scratched his, arm and Bob, [scratched his, arm] too
    b. **Sloppy reading**: John, scratched his, arm and Bob, [scratched his, arm] too

In the reading in (42a) the pronoun his denotes the same referent in both the antecedent VP and the elided VP. This is called the “strict identity” reading because the elided VP is interpreted as being identical to the antecedent VP. The sloppy reading is interpreted as (42b), where the pronoun his refers to John in the first clause, but the pronoun his in the elided clause refers to Bob. This is called the “sloppy identity” reading because the elided VP is not interpreted as identical to the antecedent VP. Bouchard (1985) observes that PRO in the elided VP must be construed sloppily (and never strictly), as illustrated in (43):

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9 Here and below, we remain agnostic about the precise nature of the elided constituent (vP, VP, or some other verbal projection).
Maryi expected [PROi to attend the ceremony] and Suei did too [expect PROi to attend the ceremony].

a. **Strict reading**: … Sue expected Mary to attend the ceremony.
   b. ✓ **Sloppy reading**: … Sue expected Sue to attend the ceremony.

Hence PRO’s controller Sue must be a local co-dependent of the elided clause and not the controller in the antecedent clause Mary. The data in (44) show that the overt pronoun in Gã only has a sloppy reading.

(44) Mary agree [kplənɔ ni ɛ-yà pàáti le  ni Pitei hú kplənɔ] Mary agree COMP 3SG-go.INF party DET and Peter also agree

[ni e-ŋ ya pàáti le] COMP 3SG-go.INF party DET

‘Mary agreed to go to the party and Peter also (agreed to go to the party).’

a. **Strict reading**: … Peter agreed for Mary to go to the party.
   b. ✓ **Sloppy reading**: … Peter agreed that he (Peter) would go to the party.

In this example, the pronoun in the elided VP refers to Peter and not Mary or some other third person. This shows that the embedded overt pronoun acts like PRO in only allowing a sloppy reading. Subject pronouns in finite embedded clauses, however, allow both strict and sloppy readings, as expected.

(45) Mary agree [akë ej bàá-yà pàáti le  ni Pitei hú kplənɔ] Mary agree COMP 3SG FUT-go party DET and Peter also agree

[akë e-ŋ ya pàáti le] COMP 3SG FUT-go party DET

‘Mary agreed that she would go to the party and Peter also (agreed that she/he would go to the party).’

a. ✓ **Strict reading**: … Peter agreed that Mary would go to the party.
   b. ✓ **Sloppy reading**: … Peter agreed that he (Peter) would go to the party.

The strict/sloppy distinction is also detectible in cases of focus with pè ‘only’ (see Landau 2013). Consider the following two contexts:

(46) a. Peter agreed to go to the party, Aku agreed to go to the party and Mansa agreed to go to the party.
   b. Peter, Aku and Mansa all agreed that Peter would go to the party.

These contexts demonstrate that the overt pronoun is interpreted as a bound variable. The example with the overt pronoun in (47a) is false in context (46a), but true in (46b). Example (47b), however, has a tensed complement clause and allows for two different readings. In one reading, this sentence is equivalent to (47a) and therefore false in context (46a) and on the other interpretation it is true in context (46a).

(47) a. Peter only [pè (ni) kplənɔ ni ɛ yà paati le] Peter only FOC agree COMP 3SG go.INF party DET

‘Only Peter agreed to go to the party.’

b. Peter only [pè (ni) akë ɛ bàá-yà paati le] Peter only FOC agree COMP 3SG FUT-go party DET

‘Only Peter agreed that he will go to the party.’

Thus, we see that the overt pronoun must be interpreted as a bound variable, unlike normal pronouns and like PRO.
4.5. De Se: The overt pronoun must be interpreted as *de se. Chierchia (1989) argues that infinitives and gerunds are systematically interpreted as derived predicates; thus, when combined with attitude verbs, they give rise to obligatory *de se interpretations. In the example below, the *de se reading arises when the controller/antecedent is the subject of an attitude predicate and is aware that the complement proposition pertains to herself. In any situation where the attitude holder mistakes the embedded subject as someone other than herself, the overt pronoun cannot be felicitously used.

Imagine a scenario where Ajele Thompson has been nominated to win a prize but has no knowledge of this. Ajele comes to a notice that reads, “Ayele Tomson is nominated for the Anisha prize”. Ajele anticipates that Ayele will win the prize, not knowing that she (Ajele) is the one nominated for the prize, but her name was misspelled. Ajele comes to believe that Ayele will win the prize.

\[(48) \quad \#Ajele\_i\ kp\_gb\_ni \_y\_\_jw\_l\_\_prize\_det \]
\[\#Ajele\_i\ expects PRO\_i\ to win the prize.\]

Given this context, (48) is not felicitous since the attitude holder Ajele mistakes the embedded subject to be Ayele. This gives further evidence that the overt pronoun is a lexical realization of PRO, given that both must be read *de se. Note that subject pronouns in finite embedded clauses do not require the *de se reading: the example in (49) is felicitous in the context above.

\[(49) \quad Ajele\_i\ kp\_gb\_\_ák\_\_b\_\_jw\_l\_\_prize\_det \]
\[Ajele\_i\ expects that she will win the prize.\]

Summing up, we have seen that the overt pronoun in Gâ infinitives patterns with obligatorily controlled PRO: the overt pronoun must be controlled by a matrix argument, it must be c-commanded by its antecedent, it cannot have long-distance antecedents and that under ellipsis the pronouns must be construed sloppily. Based on these examples, we conclude that in control complements, the infinitival clause has overt pronominal subjects that are obligatorily controlled, hence a phonetic representation of PRO. Before turning to our analysis, we mention one final property of the overt pronoun: partial control.

4.6. Partial control. Partial control can be defined as a case of control where the individual denoted by the controller is a proper subset of the understood subject of the embedded clause (Wilkinson 1971). A partial control construction has a singular subject licensing a collective predicate or a plural subject predicate in the embedded clause. An example from English is shown below, where the predicate *gather normally requires a plural subject. PRO is therefore understood as referring to the chair and other people.

\[(50) \quad \_\text{The chair} \_\text{preferred [PRO\_i\ to gather at 6].} \]

The overt pronoun up to this point has occurred in contexts of exhaustive control; as we will see, however, the overt pronoun allows a partial control reading.

We begin with an illustration in (51) of the verb kpè ‘gather’, that requires a plural subject, much like its English counterpart.

\[(51) \quad a. \quad *\_\text{Mi}\_kpè \_\text{gather} \_\text{Isg} \_\text{gather} \_\text{*1 gathered.}\]

b. *È kpè
   3SG gather
**‘She gathered.’

c. Àmè kpè
   3PL gather
‘They gathered.’

As shown in (52), it is possible to have kpè ‘gather’ in the embedded infinitival clause. The matrix subject is singular (Kojo in (52a) and Ajele in (52b)), but the overt pronoun must be plural (àmè or wɔ́).

(52) a. Kojo₁ kpàŋ/shwã/tsê ni ámèi₁/*èi₁ kpè ṣmëji ēkpàá
   Kojo decide/regret/hate COMP 3PL/3SG gather hours six
   ‘Kojo decided/regretted/hated PRO₁/#PRO₁ to meet/meeting at 6.’

b. Ajele₁ kplëŋɔ ni wɔ́i₁ kpè
   Ajele agree COMP 1PL gather
   ‘Ajele agreed for us to meet’
   (Ajele is planning a meeting, where she will be present with the speaker and others.)

As has been pointed out in the literature, partial control is only possible with certain predicates (Wurmbrand 1998; Landau 2001; Grano 2012; Pearson 2016). In Gã, the following predicates license partial control: shwã hè ‘regret’, tsê ‘hate’, kàlã ‘imagine’, kpàŋ ‘decide’, táò ‘want’, kplë nɔ̀ ‘agree’, shè gbëyèé ‘afraid’, tò ‘plan, arrange’, and fèé nàákp ‘surprised’. Other predicates are exhaustive control: miá hi ‘try’, nyé ‘manage’, kënyá ‘encourage’, kpòò ‘enjoy’, ná ‘get’, hiëkànɔ ‘hope’, hiëkpìànɔ ‘forget’, wá ‘help’, dài ‘urge, force’, kpà-gbè ‘expect’, and lákã ‘persuade’.10 These lists of verbs are by no means comprehensive and we set aside a full discussion of the semantic properties that distinguish between partial and exhaustive control verbs in Gã. What is important for our purposes is that partial control is possible with the overt pronoun. We now turn to the proposed analysis.

5. Analysis
In this section, we adopt the minimal pronoun account of PRO (Kratzer 2009, Landau 2015). Specifically, PRO is generated as a pronoun lacking phi-features; it inherits phi-feature values from its antecedent. After presenting our analysis, we argue against treating the overt pronoun in Gã as an overt copy of A-movement (the Movement Theory of Control of Hornstein 1999). We then turn to a comparison between Gã and two other West African languages with overt PRO: Ewe (Satik 2021) and Bûlì (Sulemana 2019, 2021). We show that despite similarities, the three languages merit distinct analyses. We conclude that PRO in Gã must be overt due to phonological requirements of Spec, TP.

5.1. Minimal pronoun analysis. As we established in Section 4, the pronoun é in the following sentences instantiates overt PRO. Relevant examples of subject and object control are given in (53a, b), respectively.

(53) a. Aku kái ni é/*j hè wòlò
   Aku remember COMP 3SG buy.INF book
   ‘Aku remembered to buy a book’

10 Split control is only possible with a limited set of verbs, such as bi ‘ask’.

(i) Joojo₁ bi Mary₃ ni ámèi₃ wá ámè hè
    Joojo ask Mary COMP 3PL help 3PL self
   ‘Joojo asked Mary to help each other.’
We propose that the embedded subject is generated as a minimal pronoun, a DP lacking phi-features (Kratzer 1998, 2009). It is merged in Spec,vP and moves to Spec,TP to satisfy the EPP. We adopt Kratzer’s (1998) proposal that minimal pronouns are mere indices – assuming that all pronouns must be specified for phi-features, they receive their features from their binder. In the case of control, the binder is the controller: the closest c-commanding DP.\(^\text{11}\) We assume that any approach to minimal pronouns will be able to account for the Gã data, so we do not explore the semantics any further here.

The derivation of (54a) is sketched out below, where ø is the minimal pronoun (see Sulemana 2021 for a similar analysis for Bùlì). The features of the controller (Aku) are passed on to the minimal pronoun. The pronoun in the embedded Spec,TP is overtly realized as è.\(^\text{12}\)

\[
\begin{align*}
\text{b. Aku} & \text{ wá Ama ni èvù tonight yà skúl} \\
\text{Aku help Ama COMP 3SG-go.INF school} \\
\text{‘Aku helped Ama to go to school.’}
\end{align*}
\]

\[(54)\]
\[
\begin{align*}
\text{a. Aku} & \text{ káì ni èvùj he wòlò} \\
\text{Aku remember COMP 3SG buy.INF book} \\
\text{‘Aku remembered to buy a book.’}
\end{align*}
\]

\[
\begin{align*}
\text{b. Aku}_{3SG} & \text{ káì [CP ni [TP ø [vP ø hè wòlò]]]} \\
\text{underlying structure}
\end{align*}
\]

\[
\begin{align*}
\text{c. Aku}_{3SG} & \text{ káì [CP ni [TP ø}_{3SG} [vP ø}_{3SG} hè wòlò]]} \\
\text{feature transmission}
\end{align*}
\]

\[
\begin{align*}
\text{d. Aku}_{3SG} & \text{ káì [CP ni [TP è}_{3SG} [vP ø}_{3SG} hè wòlò]]} \\
\text{spell-out}
\end{align*}
\]

The derivation of object control would be similar – the features are transmitted from the object to the minimal pronoun. As for partial control, we follow Madigan (2008) and suggest that the minimal pronoun can combine with a [group] feature (Kratzer 2009). The features of the controller are also transmitted, as shown in (55c).

\[
\begin{align*}
\text{a. Kojo} & \text{ kpàŋ ni ámè} -1 kpè ëmèjì èkpàà} \\
\text{Kojo decided COMP 3PL meet hours six} \\
\text{‘Kojo decided PRO-1 to meet at 6.’}
\end{align*}
\]

\[
\begin{align*}
\text{b. Kojo}_{3SG} & \text{ kpàŋ [CP ni [TP ø}_{GROUP} [vP ø}_{GROUP} kpè ëmèjì èkpàà]]} \\
\text{underlying structure}
\end{align*}
\]

\[
\begin{align*}
\text{c. Kojo}_{3SG} & \text{ kpàŋ [CP ni [TP ø}_{GROUP, 3SG} [vP ø}_{GROUP, 3SG} kpè ëmèjì èkpàà]]} \\
\text{feature transmission}
\end{align*}
\]

\[
\begin{align*}
\text{d. Kojo}_{3SG} & \text{ kpàŋ [CP ni [TP ámè}_{GROUP, 3SG} [vP ø}_{GROUP, 3SG} kpè ëmèjì èkpàà]]} \\
\text{spell-out}
\end{align*}
\]

---

\(^{11}\) A reviewer asks about the verb ‘promise’. As the example below illustrates, ‘promise’ does not involve a control structure: the embedded clause takes the ãkè complementizer, the embedded subject is marked with a low tone, and the embedded verb is tensed.

\[(i)\] \[\text{Joojo wò è tsòslò nàà shi ãkè ë-è-bàátsù wòlò hè nii} \\
\text{Joojo put POSS teacher mouth under COMP 3-FUT work paper self thing} \\
\text{‘Joojo promised his teacher to work on the paper.’}
\]

Moreover, the embedded subject can be disjoint from the matrix (there is no obligatory control).

\[(ii)\] \[\text{Joojo wò è tsòslò nàà shi ãkè Aku bàá tsù wòlò hè nii} \\
\text{Joojo put POSS teacher mouth under COMP Aku FUT work paper self thing} \\
\text{‘Joojo promised his teacher that Aku will work on the paper.’}
\]

\(^{12}\) The pronoun may in fact move into the CP domain, specifically FinP, as posited by Landau (2015). We do not have Gã-specific arguments for (or against) such movement. We note that the pronoun follows the complementizer \(ni\), which is compatible with Landau’s articulated CP domain (following Rizzi 1997 and many others).
Note that the overt realization of the pronoun is as expected: ámɛ́ is the third-person plural pronoun. What is special here is the apparent clash between the [group] feature and the [3sg] feature on the pronoun. We suggest (again, following Madigan 2008) that this combination gives rise to an associative plural reading. In an example like (55a), the reading of the pronoun is roughly ‘Kojo and those associated with Kojo’. As well as encoding person and number, the overt pronoun is also marked irrealis (high tone). We suggest that the T head of the embedded nonfinite clause is associated with the feature [irrealis]. The embedded subject agrees with T and receives the high tone marking (see Allotey 2021:30-42 for a detailed description).

As can be seen clearly in the above derivations, only the pronoun in Spec,TP is overtly spelled-out; Spec,vP remains unpronounced. Nothing in the analysis thus far accounts for this fact. Note that it is precisely the overtness of the pronoun in Gã that is surprising: in English the minimal pronoun remains null. We consider a possible answer to this puzzle in Section 5.3.

5.2. Alternative analysis for the overt pronoun. In this section we discuss an alternative analysis for the overt pronoun: The Movement Theory of Control as detailed by Hornstein (1999). We show that the facts from partial control are problematic for this approach.

Hornstein’s (1999) innovative analysis treats both raising and control as involving syntactic movement, eliminating the need for PRO. The representation in (56b) shows a movement-based analysis of the Gã example in (56a). The subject DP first merges in Spec, vP of the embedded clause, checking the external theta-role of the verb nà ‘see’, and subsequently moves to the Spec, TP, presumably for EPP reasons. When the matrix verb is merged with its TP complement, the embedded subject raises to its second theta-position, Spec, vP, to check theta-role of táò ‘want’, thus satisfying the external theta-roles of both verbs, and finally moves to Spec, TP to satisfy the EPP.

(56) a. mì-ĩ́ táò ni má_i ná bò  
   1sg-prog want comp 1sg see.inf 2sg
   ‘I want to see you’

b. [TP mì-ĩ́ [vP má_i táò [CP ni [TP má_i [vP má_i ná bò] ]]]]

Under this approach, the overt pronoun ma is simply a pronounced copy of the moved DP in the subject position of the embedded TP. While the MTC is appealing in terms of economy, it cannot account for the full range of Gã data. Specifically, as has been noted by many authors, partial control is problematic for the MTC. Recall that in cases of partial control, the overt pronoun must be plural, while the controller is singular.

(57) Kojo, kpàŋ/shwà/tsè  ní álɛ́ɛ́/ɛ́ kpè  nɛ́ɛ́jì  ékpàà  
Kojo decide/regret/hate COMP 3PL/3SG gather hours six
‘Kojo decided/regretted/hated PRO1i/*PRO1 to meet/meeting at 6.’

If the overt pronoun were the pronunciation of the trace of Kojo, we would not expect a plural pronoun. To address the problem of partial control, Boeckx et al. (2010: 183-190) argue that certain
embedded predicates license a null comitative, as in (58) below. The meaning is roughly ‘with someone’. It is this null comitative that gives rise to the appearance of partial control.

(58) [[The chair] hoped [i, to meet procomitative at 6]]

The null comitative analysis does not carry over to Gã (see Sulemana 2021 for similar arguments from Buli). For example, as we have just seen in (57), the controller and controllee can differ in number features and under a movement account, identity of features is predicted. More importantly, as shown in (57), the overt pronoun must be plural with a verb like kpè ‘meet’. If the language had a null comitative, a singular pronoun should be grammatical. We therefore conclude that the MTC is not applicable to Gã.

5.3. The overtness of the pronoun. The proposed analysis does not explain why PRO must be overt in Gã. To address this gap, we turn to two other West African languages that have overt PRO, Ewe and Buli. We repeat the relevant examples below.

(59) Ewe (Satik 2021:5)

\[
\begin{align*}
\text{Agbe} & \text{ dzagbagba be } \text{ yè-a} \text{ dzo.} \\
\text{Agbe} & \text{ try} \text{ COMP} \text{ YÈ-pot} \text{ leave}
\end{align*}
\]

‘Agbe tried to leave.’

(60) Buli (Sulemana 2021:96)

\[
\begin{align*}
\text{Asouk} & \text{ tieri } \ast(\text{wài/-}) \text{ dā gbanj} \\
\text{Asouk} & \text{ remember 3SG buy book}
\end{align*}
\]

‘Asouk remembered to buy a book.’

Both Satik (2021) and Sulemana (2021) argue that the overt pronoun in the embedded clause is equivalent to PRO, much like we have argued for Gã. They show that the overt pronoun passes all the tests for obligatorily controlled PRO. Moreover, they demonstrate that partial control is possible in Ewe and Buli, just as we saw for Gã. While both Satik and Sulemana note that the pronoun is obligatorily overt, unlike overt PRO in Romance and the other languages discussed earlier, neither author proposes an analysis of the overtness of the pronoun in these languages. In what follows, we address this question, highlighting differences between the three languages, but with a focus on Buli and Gã.

Turning first to Ewe, as shown by Satik (2021), the overt pronoun in Ewe is always third person, either singular yè or plural yè-wo. In Buli, however, the overt pronoun co-varies with the controller in terms of person and number, much like we saw for Gã. Although the overt pronouns in Sulemana’s thesis are consistently third person, he provided us with the following example to illustrate first-person singular.

(61) Buli (Sulemana p.c.)

\[
\begin{align*}
\text{Mi} & \text{ tieri } \text{ nì dā gbanj} \\
1SG & \text{ remember 1SG buy book}
\end{align*}
\]

‘I remembered to buy a book.’

Note that in Buli, there are weak and strong pronouns and only the former are permitted as overt PRO, hence the different realizations of first-person singular in this example. Because overt PRO in Ewe is restricted to third person, we focus the rest of the discussion on Buli.

From Sulemana’s description, the subject position in Buli is always overtly realized. We have seen this for control in (61). Moreover, unlike Gã (and Ewe), Buli also has raising constructions. In these
cases, the trace of the moved DP is also overtly realized as a pronoun, for example *wà in the example below.

(62)  
\[
\text{Bùlì (Sulemana 2021: 98)}
\]
\[
\begin{align*}
\text{Asouk,} & \quad \text{mágsi} \quad \text{wà\text{+}}.j \quad \text{chēn} \quad \text{sūkū}: \\
\text{Asouk} & \quad \text{right} \quad 3\text{SG} \quad \text{go school}
\end{align*}
\]
\`
It is right for Asouk to go to school.‘

Strikingly, traces of subject wh-movement are also overtly realized as a pronoun in this language. In (63), for example, the subject of the embedded verb *dig ‘cook’ has been extracted and the pronoun *wà appears in the subject position.

(63)  
\[
\text{Bùlì (Sulemana 2021: 80)}
\]
\[
\begin{align*}
\text{(ká) wānā } & \quad *\text{(ātī) fi pá:chim } \quad *(\text{wà}) \quad \text{ali } \text{dīg lāmmū}: \\
\text{Q who } & \quad \text{ATI } \quad 2\text{SG} \quad \text{think } \quad 3\text{SG} \quad \text{ALI cook meat.DEF}
\end{align*}
\]
\`
Who do you think cooked the meat?‘

Gā does not pattern the same way as Bùlì. First, Gā is completely lacking in raising constructions (Satik 2021 also notes the absence of raising in Ewe).15 In (64a), we see that the embedded subject *nugbɔ ‘rain’ remains in the embedded clause and there is a matrix subject pronoun. Example (64b) shows an attempt at raising, where the embedded subject appears in the matrix subject position and the result is ungrammatical.

(64)  
\[
\text{Gā}
\]
\[
\text{a. } \quad \text{È tamɔ́ nugbɔ̩ mii-n̄̄} \\
\quad 3\text{SG} \quad \text{appear} \quad \text{rain PROG-fall}
\]
\`
It appears/seems to be raining.’

\[
\text{b. } \quad *\text{Ọ́ tamɔ́ o sumɔ́-ḍ̄ bē-il} \\
\quad 2\text{SG} \quad \text{appear} \quad 2\text{SG} \quad \text{like-HAB argument-PL}
\]
\`
It seems you like arguing/arguments.’

The data in (65) show a similar pattern. The non-raising example in (65a) is grammatical, but it is not possible to raise the embedded subject, as in (65b).

(65)  
\[
\text{Gā}
\]
\[
\text{a. } \quad \text{È sà ni wọ́ yà skul} \\
\quad 3\text{SG} \quad \text{right COMPOPL go school}
\]
\`
It is right for us to go to school.’

\[
\text{b. } \quad *\text{Wọ́ sà ni wọ́ yà skul} \\
\quad 1\text{PL} \quad \text{right COMPOPL go school}
\]
\`
It is right for us to go to school.’

Second, the traces of subject extraction are not pronounced. Example (66a) shows a grammatical instance of subject wh-movement from the embedded clause. Example (66b) shows that an overt pronoun in the position of the embedded subject is ungrammatical.

\[
15 \text{Gā also does not have passive and therefore seems to lack typical A-movement, other than movement of the subject to Spec, TP.}
\]
To account for this pattern, we suggest that in Bùlì the EPP feature on T is associated with a phonological requirement that it be overtly realized (following proposals by Landau 2006 for V(P)-fronting in Hebrew and van Urk 2015 for pronoun copying in Dinka). Thus, if there is a minimal pronoun or a trace (copy) in the subject position, a pronoun will overtly realize the features of this element. Gã clearly does not have the same EPP feature on T as Bùlì: the minimal pronoun (PRO) must be overtly realized but copies of wh-movement are not. We take these facts to show us that the grammar can distinguish between the minimal pronoun and copies. Further comparative research will reveal why Bùlì and Gã differ in this way.

Summing up, we have argued that the overt pronoun in Gã is a minimal pronoun that receives its features from an argument in the matrix clause. What is special about Gã (compared to English) is that this pronoun must be pronounced. We have suggested that the overt nature of the pronoun is due to a phonological requirement on the subject position, such that while copies in this position are not pronounced, the minimal pronoun must be.

6. Conclusion
The central concern of this paper has been to show evidence for overt subjects in the embedded clauses of control sentences of the Gã language. We have argued that the overt pronoun in these clauses shares the properties of PRO and, moreover, we have shown that it is a subject and not an agreement marker or resumptive pronoun. Our arguments lead to the conclusion that the overt pronoun found in non-finite complements under control predicates is a lexical instance of PRO. Our analysis adopts the minimal pronoun analysis of Kratzer (2009) and Landau (2015), where the subject of the infinitival verb is generated as a pronoun lacking phi-features. These features are supplied by the binder (antecedent).

Overt pronominals in embedded infinitival clauses have been attested in many languages such as Korean (Madigan 2008), Hungarian (Szabolcsi 2009), and certain Romance languages (Burzio 1986, Cardinaletti 1999, Barbosa 2009, Alboiu 2010). In these languages, however, the overt pronoun is optional and always marks focus. In Gã and some other West African languages (Ewe (Satık 2021) and Bùlì (Sulemana 2019, 2021)) PRO must be overtly realized and is not focussed. If overt nominative subjects in infinitives surface in languages that crucially are typologically different from each other and are from different language families, then why do we not find them in some other languages, such as English? Moreover, we have seen that even though Gã and Bùlì are very similar in terms of overt PRO, they differ in other key respects (the overtness of copies of movement). The current paper hopes to facilitate research into these questions by providing a careful description of the Gã data and offering an analysis. What accounts for the cross-linguistic differences is a question for future research.

Abbreviations
ACC  accusative
C    quotative complementizer
COMP complementizer
DAT  dative
DC declarative
DET determiner
FOC focus
FUT future
HAB habitual
IMP imperative
INF infinitive
IPP impersonal pronoun
IRR irreals
LOC locative
LOG logophoric pronoun
NEG negation
NMLZ nominalizer
NOM nominative
PFV perfective
PL plural
POL polarity
POSS possessive
POT potential mood
PROG progressive
PRS present
PST past
SBJ subject
SBJV subjunctive
SG singular

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