

REJOINDER: SPATIAL DEIXIS IN TIGRINYA

Keffyalew Gebregziabher

Abstract

In this paper, I analyze deictic expressions in Tigrinya, focusing mainly on spatial deixis, a domain that presents unique insights into the interaction between syntax and pragmatics. I show that Tigrinya exhibits a three-way contrast, distinguishing between (i) distal from both speaker and addressee, (ii) proximal to both speaker and addressee, and (iii) proximal to the addressee alone. This contrast contributes to the ongoing debate in deictic expressions by demonstrating the different ways in which spatial relationships are encoded across languages. Building on previous work, I develop a new framework that distinguishes this contrast by integrating both syntactic and pragmatic features, offering a more comprehensive understanding of Tigrinya spatial deixis. I argue that the categorial and functional variation observed in Tigrinya spatial deixis can be explained by invoking semantic features (e.g., [ADDR(essee)], [PROX(mal)]) and formal Person features (e.g., [1], [2]) that occupy different structural positions within the extended nominal spine, DP. Taking issue with the view that space plays no role in spatial deixis, I present empirical evidence supporting the claim that the primary function of demonstratives is shaped by both grammatical and discourse-interactive aspects of language.

Key words: addressee, demonstratives, Ethio-semitic, personal-deixis, spatial-deixis, Tigrinya

1. Introduction

The term “deixis” is broadly defined as “the ways in which languages encode ... features of the context of utterance” or specification of locations relative to points of reference in a speech event (Levinson 1983:54). Levinson further adds that deictic expressions are linguistic elements with “built in-contextual parameters” that must be specified, to be fully understood by the context. In other words, the referent of a deictic expression is only interpretable in light

of when, where, and/or by whom the sentence is uttered. For example, consider the sentence in (1). It has no meaningful interpretation without the understanding of at least who is speaking and when and where the speech act occurred (see also Diessel 1999, Dixon 2003, a.o for discussion).

(1) We are here now.

For sentence (1) to get a full interpretation, we need to recognize that the interpretation of personal pronouns, like ‘we’ (and generally 1st and 2nd person) are dependent on the identities of the speaker and the addressee. That is, 1st and 2nd person pronouns are inherently deictic in that their use by a speaker automatically selects the current speaker and the current intended addressee, respectively. Second, because locative expressions like *here* and *there* encode position and distance relative to the speaker and/or addressee, we need to establish the location of the speaker and/or the addressee (relative to the deictic center). Finally, we need to identify that temporal deictic expressions (e.g., Tense) encodes the eventuality of the predicate w.r.t the speech act.¹ In this case, the present tense is implicated to indicate that the state/event denoted by the predicate is concurrent with the speech act. Temporal deictic adverbs, such as *now* and *then* can, thus, indicate that the state/event denoted by the predicate is interpreted relative to the speech act (see Levinson 2003, Dixon 2010, for a detailed discussion).

In addition to the temporal (e.g., *now* and *then*) and locational (e.g., *here* and *there*) types, there are spatial deictic expressions (e.g., *this*, *that* etc.) that all languages use to point and gesture a certain referent in the domain of discourse. These are referred to as spatial deixis or demonstratives (see Halliday & Hasan 1976, Levinson 1983, a.o for an earlier discussion of the issue; for a recent extensive discussion, see, a.o, Diessel 1999, 2014, Dixon 2010, Ritter & Wiltschko 2018). Demonstratives (DEMs hereafter), according to Diessel (2014) are universal categories that encode two contrastive degrees of relative distance from the deictic center (often associated with the speaker/actor’s body).

In the literature, the word class categorization and function of deictic expressions are diverse, as different scholars use the term “deixis” in different ways (see Diessel 2014 for discussion). Many scholars use the term

1 Tense can be characterized by speech event relative to utterance time as in *John read the book after he finished his chores*, and in some languages it might be considered anaphoric rather than deictic (see Comrie 1985 for discussion). In this respect, tense introduces or refers to a temporal variable (like a pronoun) that can be bound or resolved anaphorically (see Heim 1994, Klein 1994, Abusch 1997, for an extensive discussion).

to refer to grammatical categories such as demonstratives (e.g., *this/that, here/there*), pronouns (e.g., *he/she & we/they*), and temporal words (e.g., *now & then*).² Diessel (1999), for example, claims that the syntactic categories these deictic expressions belong to include nominal (which is further divided into adnominal and pronominal), adverbial and identificational (but see Himmelmann 1996, Levinson 2003 for a different classification). By contrast, Levinson (2003) argues against the view that demonstratives are primarily deictic. Coventry et al. (2008), on their experimental studies, contend that there is compelling evidence that demonstrative reference has its roots in our bodily experience with objects in space, but crucially, they note that deictic space must not be confused with physical space (see Peeters and Özyürek 2016 for a recent discussion).

The debate over the question of whether space is largely irrelevant to deixis or whether demonstratives are primarily used for social and interactive purposes is still well and alive (see Diessel & Coventry 2020 for an overview). In this paper, I present a comprehensive account of the Tigrinya demonstrative system which takes into account both syntactic and pragmatic functions, providing new insight into the meanings of many of the elements that comprise the system. Building on current work, I argue that DEMs in Tigrinya are a very special class of linguistic categories that are foundational to both spatial and social aspects of language and beyond. Using a number of diagnostics, I show that Tigrinya DEMs are both person- and distance-oriented and that variation in the deictic anchor reflects the speaker's reconceptualization of the space the entity is demarcated.³

The remainder of the paper is organized as follows: In section 2, I lay out a brief overview of the nature of deixis in Tigrinya, focussing on person,

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- 2 The term 'deixis' also refers to 'pointing/gesturing' in language (Fillmore 1997): Any linguistic form that accomplishes 'pointing' is called a deictic expression. The literature often categorizes deixis into spatial (axial expressions of location), personal (speech participants in a discourse) and temporal (time). In this paper, special emphasis is given to the first, but see section 2 for a brief discussion of the latter two as well.
 - 3 A word on terminology: I will use terms 'spatial deixis' and 'demonstratives' pretty much co-extensively (Diessel 1999). But I make this brief distinction here: spatial deixis will be used to encode the broader phenomena of pragmatic space demarcation, and demonstrative of the narrower linguistically relevant aspects of deixis (Levinson 2003). I also use the following abbreviations: a.o.=among others, addr=addressee, D=determiner, dist=distal, f=feminine, impf=imperfective, m=male, O=object, pf=perfective, pl=plural, pol=polite, prox=proximal, rel=relativizer, S=subject sg=singular, spkr=speaker, w.r.t.=with respect to, 1=first person, 2=second person, 3=third person,

temporal and spatial deixis. In section 3, I address the question of categorial and functional properties of Tigrinya spatial deixis. Section 4 reports pragmatic properties of Tigrinya spatial deixis, while section 5 deals with the formal account for Tigrinya spatial deixis. Finally, section 6 concludes highlighting the main findings.

2. Brief overview of Tigrinya deixis

In this section, I present a brief overview of the ways in which spatial, personal, and temporal deictic expressions are conceptualized and referred to in a speech event in both empirical and theoretical studies. In the literature, there is an ongoing debate whether demonstratives are primary deictic expressions (e.g., Himmelmann 1996), whether 3rd person pronouns encode spatial/discourse deixis, and whether they are fundamentally deictic (e.g., Melbourne 2005) or they are grammaticized demonstratives (e.g., Diessel 1999). Placing special emphasis on the way such deictic expressions are manifested in Tigrinya, I argue that Tigrinya person deixis only includes 1st and 2nd persons and that the third person is largely a manifestation of a spatial deixis and not a real person as such (cf. Benveniste 1967; see Harley & Ritter 2002, Dixon 2010 for a similar proposal based on other languages). I also demonstrate that Tigrinya spatial deixis/demonstratives are core manifestations of not only spatial deixis but also features of pragmatic deixis (see Diessel 2014 for a similar argument). Finally, it is shown that temporal deixis in Tigrinya encodes the here-and-now of the speech situation, anchoring the ADDR/SPKR to the temporal relations *before*, *after* or *simultaneous* to the moment of speech.

2.1 Personal deixis

In Tigrinya, personal deixis can be divided into two types: First person deixis, which refers to the speaker, and second person, which refers to the addressee, in a given domain of discourse (see Leslau 1941, Kogan 1997 for a brief discussion). In the dialogue given in (2), the speaker's reference is identified with the first person plural *nihna* 'we', while the second person feminine plural, *nissikatkin* 'you (pl)' indicates the addressee's reference.⁴

4 The data reported here is collected in a fieldwork undertaken by the author during the summers of 2019 and 2023 as part of two larger projects in Tigray, Ethiopia. Unless otherwise mentioned, the data presented in this paper are based on original fieldwork data from language consultants, developed into a mini-corpus over the years. I would like to thank the consultants and collaborators who have made the fieldwork possible. I also thank Betsy Ritter for comments and discussion, the two anonymous reviewers for feedback, and Azeb Amha,

- (2) Q. **niħna** kabəy məs'iʔ-na? SPATIAL DEIXIS
 1pl from.where come-pf-1pl.S
 'Where did we come from?'
- A. **nissixatkin** kab-zi-məs'aʔ-kin-nəʔ-o
 2.fpl from=Rel=come.PF-2fsg-3fsg.O
 'Wherever you are from.'

First, notice that pronominal patterns, such as those in (2), are generally characterized in terms of person, gender, number as well as politeness features. Based on Person features, they can be expressed using (i) pragmatic speech act roles ([Speaker], [Addressee]) or/and (ii) purely formal features ([±1], [±2]). In the literature, such contrastive binary features have been proven to straightforwardly show the necessary distinctions among the different persons across languages (see Harley & Ritter 2002, McGinnis 2005, Cowper & Hall 2014, a.o for typological accounts across languages). This is illustrated in Table 1 for Tigrinya (but see Kogan 1997:443).

Table 1. Tigrinya personal pronouns

Person	Gender	Number		Polite
		Singular	Plural	
[Speaker]/[1]		ʔanə	niħna	nissatna
[Addressee]/[2]	Masculine	nissika	nissikat̪kum	nissikum
	Feminine	nissiki	nissikat̪kin	nissikin
---/[3]	Masculine	nissu	nissatom	nissom
	Feminine	nissa	nissatən	nissən

While the traditional literature identifies three Persons in Tigrinya (e.g., Leslau 1941, Kogan 1997, Tesfay 2002, a.o), here I simply show how these persons (namely, 1st [speaker], 2nd [addressee], 3rd [other]) are systematically analyzed using formal features (see section 4 for further discussion). In other words, I claim that the mixed pronominal system where both pragmatic and syntactic properties are formally represented better accounts for the pronominal paradigm of the language. Second, in terms of gender features, notice that all the persons (save 1st person) show gender variation across the singular and plural as well as polite forms.

Third, in terms of number feature, pronouns also appear different: while Tigrinya nominals employ both the sound/regular and the broken pluralization strategies (Palmer 1955), pronouns in the language only make

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and distal deictic terms, and in this paper, I will adopt the same terminologies (hereafter PROX and DIST for short, respectively).

The PROX and DIST deictic expressions can be used attributively and/or co-referentially. For example, they can identify a referent in a demarcated region by either co-occurring with the referent noun phrase or by co-reference independently occurring in copular construction. Compare the following question and answer pairs:

- (4) Q. [**ʔiz-om səbʔut**] **kabəy** zi-məs'-u-(ʔi)yy-om?
 D-m.pl men from.where Rel-come.PF-be.PRES-3m.pl.S
 'These men, where do they come from?'
- A. [**ʔiziʔ(at)-om**] kab-tigray [**ʔitiʔ(at)-om**] dima kab-wəlayta
 D-m.pl from-Tigray D-m.pl but from-Wolayta
 'These are from Tigray, but those (are) from Wolaita.'
- (5) Q. [**ʔit-ən killtə ʔanisti ʔabəy** ʔiyy-u ʕaddən?
 D-fpl two women where be-3msg.S country=their.f
 'These two women, where are they from?'
- A. [**ʔitiʔ-a**] ʔitop'ya [**ʔiziʔ-a**] dima kanada
 D-f.sg Ethiopia D-fsg but Canada
 'This one is from Canada, but that one is from Ethiopia.'
- (6) Q. [**nissa ʔit-a məs'haf**] nay-mən-ya, mə-x'əbal-ka-nni-do?
 3.fsg D-fsg book whose.is NML-hand.over-2msg.S-1sg.O-Q
 'That one (near you), whose book is it? Would you pass it to me?'
- A. hiray [**ʔiziʔ-a**] natəy/nay-selam ʔiyy-a
 sure that-fsg Poss-1sg/Poss-Selam be-3msg
 'Sure. This one is mine/Selam's.'

In the Q&A pair examples given in (4-6), the questions signal a non-gestural use of DEMs, whereas the corresponding responses (in A) illustrate a gestural use of the DEMs (in which the referent of each DEM is a physical object). In (5), for instance, the DEM *ʔiziʔ(at)-om/ʔitiʔ(at)-om* 'these/those' refers to a group of men that the speaker is looking or gesturing at. In this case, the question makes reference to a group of men who are known to both the speaker and the addressee, whereas the response directs to the addressee's attention in the visible deictic space or discourse. Notice the use of the longer version of the same demonstratives by the addressee *ʔitiʔ-om/ʔiziʔ-om* 'these/those' without accompanying the referent noun phrase in the response (4A), and how the addressee's contrastive statement directs the speaker's attention to a group of men who are proximal (cf. *ʔiziʔ-*) and distal (cf. *ʔitiʔ-*), respectively, to both the interlocutors in the discourse environment. The fundamental difference is that, apart from the presence/absence of the noun

phrase (cf. *səbʔut* ‘men’), the use of the long DEM forms requires to be accompanied by a gesture or pointing, while such a requirement is optional with the shorter counterparts. The same deictic use of DEMs is observed in (5); the only difference is that since the speaker wants to point out that the referent, in this case a singular feminine individual, is far from both the speaker and the addressee, the DEM *ʔiziʔ-a* ‘this (f).PROX’ is used; on the other, the DEM *ʔitiʔ-a* ‘that (f).DIST’ is chosen because the speaker wants to highlight that the referent is only proximate to the addressee.

The example in (6), on the other hand, employs a different type of DEM. That is, *nissa* ‘that(f). PROX’ is used to refer to a book only closer to the addressee than the speaker is pointing/looking at. The question, therefore, is meant to direct the addressee’s attention to a physical entity in the universe of discourse with the speaker using an accompanying gesture. Crucially, the same DEM cannot be employed in this context to refer to the same object located closer to the addressee; hence why, in (6A) the addressee, which turns into a speaker, resorts to employing the other demonstrative, *ʔitiʔ-* (see discussion below). Overall, while gesture or pointing is a necessary condition for the use of the long DEMs, such as *ʔiz(iʔ)-*, *ʔit(iʔ)-* and/or *niss-*, such condition is not required with the short forms.

From each of the Q&A pair in (4-6), we also observe that DEMs being used *attributively* (as demonstrative articles) and *pronominally* (as demonstrative pronouns), further confirming to the general function of deictic expressions as cataphoric and anaphoric references (see Halliday and Hasan 1976, Levinson 1983 for an earlier discussion on the topic). For example, in (4) the demonstratives *ʔizom/ʔitom* ‘these/those’, which co-occur with the noun *səbʔut* ‘men’, are used attributively as a demonstrative article. This attributive use is often referred to as a *cataphoric* function – forward reference in a discourse in the sense of Diessel (1999). In the response utterance (4A), the DEM *ʔiziʔom* ‘these’ is independently used as a pronoun referencing back to the noun ‘(a group of) men’ in the textual reference. This use of the DEMs is often referred to as *anaphoric* function, drawing new reference to the noun phrase in the discourse (see Esayas *this volume* for a brief discussion). The function of the DEMs in (4)-(6) illustrate parallel contrast between *ʔiziʔ-* ‘this PROX’ and *ʔitiʔ-* ‘that DIST’ with the role of demarcating the referent as proximal to both the speaker and the addressee and far from both, respectively, as well as *niss-* ‘that PROX/ADDR’ with the role of demarcating the referent as close to the addressee only (see Himmelmann 1996 for a ‘situational use’ of demonstratives in a number of languages).

One piece of evidence for the fact that the DEM *niss-* demarcates only referents close to the hearer comes from the ungrammaticality of the alternative response given for the question in (6), repeated below as (7) for

expository purpose. The reason being, speakers do not demarcate an object within their vicinity or possibly within hands reach with a DEM that only demarcates a referent closer to the speaker (see Bangerter 2004, Cooperrider 2016, a.o for reports on how some speakers differentiate entities within hands reach from far-away referents that allows a non-deictic means of spatial use).

- (7) Q. [nissa ʔit-a məs'ħaf]nəy-mən-ya, mə-x'əbal-ka-nni-do?
 3.fsg D-fsg book whose.is NML-hand.over-2msg.S-1sg.O-Q
 'That one (near you), whose book is it? Would you pass it to me?'
 A. [*niss-a]natəy ʔiyy-a [ʔitiʔ-a/nissa] dimma nəy-səlam
 3fsg Poss-1sg be-3msg D-fsg/3fsg but Poss-Səlam
 Int. 'This one is mine, but that one is Səlam's.'

Apart from the gestural and non-gestural use of spatial expressions, Tigrinya also distinguishes between what is physically visible and accessible (5-7) and what is physically inaccessible and encompassing for the speaker to gesture an entity in the surrounding environment (8-9). In (8A), although the referent of the demonstrative *ʔiz-* 'this' is a physical entity, i.e., *ħagər* 'country', visible to the speaker, it is too big and encompassing for the speaker to gesture toward it. Thus, the speaker shuns away from the use of the regular spatial deixis (cf. *ʔiziʔ-*) when gesturing (or even gaze direction) is not available as a communication tool. Also, the form *ʔiz-* 'this' (as opposed to *ʔit-* 'that') is used in (8A) to indicate that the speaker's location overlaps with the referent even though the referent extends far beyond the visible range of the speaker. In terms of Himmelmann's (1996:240) situation-bound deixis (see also Dixon 2003), this usage is referred to as "deictic-center expansion". That is, in this usage, the deictic center itself, where the speaker is located, is a referent and it can expand as far as the speaker can imagine. In (9), we notice that the speaker asks the question by replacing the PROX *ʔiz-* 'this' with the DIST *ʔit-* 'that', which entails that the anchor is not in the same location/country which s/he demarcates at the moment of utterance.

In (9A), on the other hand, the speaker resorts to the use of a different form of spatial deixis, that is, non-gestural *niss-*, to signal that the proposition the speaker utters is true (and possibly too abstract to gesture).

- (8) Context: two friends in a phone conversation, talking about their home country.
 Q. ʔintay ʔadduʂ nəgər ʔallo?
 what new thing be-3msg.S
 'What's new?'
 A. [(ni)ʔiz-a ʔagər-ko] ʔəʂniyy-om-wa
 (ACC-)this-f.sg country-FOCC AUS.destroy.PF-3mpl.S-3fsg.O
 'This country, they have destroyed it.'

- (9) Q. [ʔit-a hager-diʔa] ʔay-s'ənḥət-n-do kab-ti-ʕannu?
 that-fsg country.FOC Neg-a.go-Neg-Q from-3fsg.S-ruin.PF
 'That country, has it not already been destroyed a long time ago?'
 A. [nissu-s] ḥakk'i-xa
 that-FOC right-2msg.S
 'That is right. (Lit. That you are true)'

Finally, while 'distance' ([PROX, DISTR]) is one of the main semantic features that characterize spatial deixis in Tigrinya, there are cases where other deictic features also participate. One of the other semantic features (apart from [PROX] and [DIST]) Tigrinya uses is *visibility*. Tigrinya uses a different DEM form, namely *wəy-* 'the (invisible)' to demarcate a referent that is both [remote] and [(in)visible] or specific but not definite in a given universe of discourse. Consider the example given in (10).⁶

(10) Context: A police officer was interrogating a woman about a traffic accident, but the woman had already left the scene before the interrogation was complete. In this case, the police officer may ask the question in (10a) to the crowd (if on the street) or to an individual (if in office setting):

- a. **wəy(y)-a** səbyti nabəy kəyd-a?
 the.INV-fsg woman where go.PF-3fsg.S
 'Where did the woman go?'
 b. **wəy(y)-a** səbyti tə-məlis-a-do?
 The.INV-fsg.woman Pass-return-3fsg.S-Q
 'Has the woman returned yet?'

In (10), we identify the DEM *wəy-* as 'the.INV' (although *ʔiza* 'the.REM' for 'remote' may equally work as well) to demarcate that the entity 'woman' is not only far away but also potentially invisible (see below for further discussion). This is equally true whether the question is a wh-interrogative (10a) or a yes/no-question (10b).

Besides, the DEM *wəy-* can have a non-gestural situational usage for a hypothetical or imaginative reference (often called deictic projection, *cf.* Dixon 2003). This usage type most often occurs in narrated discourse and serves to orient the audience to the perspective of a character within the

6 An anonymous reviewer raises the question of whether the /y/ in the invisible marker is a geminate or not. The invisible marker appears a homophone with the question marker *wəy(y)-* (e.g., (*wəy*) *s'inaḥ wəy kid`* '(You) stay or go!') often realized with the /y/ geminated depending on the context and the environment the language is spoken. Nevertheless, explaining whether the two forms are functionally related would take us far afield. Leave it open for now.

narrative, or in the case of first person narratives, to the perspective of the speaker at the time of the narrated event, rather than the time of the narration. The examples in (11) are adopted from *Haddas Eritrea Gazette* (No. 155, 2015, a story about circumcision in Tigré).

- (11) a. mis **wəy(y)-a** [ʔab-ʔaʔmiruʔu zə-ll-a səbyti] ...
 with the.REM-fsg at-mind.his Rel-be-3fsg.S woman
 ‘With the woman who has been on his mind ...’
- b. **wəy(y)-a** [zi-dəly-a [zə-ll-a səbyti]] ...
 the.REM Rel.want-her Rel-be-3fsg.S woman ...
 ‘the woman who he has been looking for ...’

One unique feature about the DEM *wəy-* (unlike the regular demonstrative articles) is that it attaches a clitic that co-references the subject of the relative clause and that agreement is not always established with it (irrespective of being inflected for gender and number features). For example, in (11b), there is an agreement mismatch: normally if the DEM is replaced by a definite article, such as *ʔita* ‘the (f)’, the relativized verb agrees with the subject ‘he’ (implicit here) and would be realized as *zəll-o* with *-o* *referencing* ‘3m.sg’. In other words, because the use of *wəy(y)a* doesn’t necessarily establish agreement with the verb, the verb is realized as *zə-ll-o* with third person masculine. We will come back to this point later in our discussion.

To recap, Tigrinya has a number of spatial deictic expressions whose functions go beyond specifying location relative to the ADDR/SPKR in a given speech act. The examples in (8-11), for instance, confirm that speaker’s choice between proximal and distal demonstratives is not just contingent on physical properties of space but also on language user’s conceptualization of the speech situation (see Conventry et al. 2008, Diessel 2014 for similar claim).

2.3 Temporal deixis

Temporal deixis relates the entire event to the here-and-now of the speech situation in a given context. For example, in English present tense is assumed to be proximal (as in *I live here now*) but past tense is considered as distal (as in *I lived there then*).

In Tigrinya, DEMs may have a secondary temporal sense. For example, the Tigrinya correlates for ‘this’/‘here’ may also relate to ‘now’, and ‘that’/‘there’ may relate to ‘then’ (which may refer to past or future, depending on the context). In Tigrinya, there are no separate temporal deictic forms. While it is tempting to establish the connection between temporal adverbial nominals like *hizzi/hidzɔʒi* ‘now’ and DEMs like *ʔiziʔ-/ʔitiʔ-*, that

connection is removed formally. In fact, as the examples in (12) show, Tigrinya only employs regular DEM like *ʔiziʔ-/ʔitiʔ-* and *niss-* along with temporal words like *zəbən/wəx'ti/ʔiwan* ‘era/season/time’ to encode temporal distance between the narrated event and the time of narration from the deictic centre. The deictic center, which is also dubbed the ‘origo’ (Diessel 2016), is roughly equivalent to the speaker’s location at the time of the utterance.

- (12) a. *kəm-ʔiziʔ-a* *ħismti* *zəbən* *ʔay-rəʔa-ku-n* TEMPORAL
 like-this-fsg cruel era neg-see.PF-1sg.S-Neg
 ‘I haven’t seen anything disturbing like this era.’
- b. *ʔab-ti* *wəx’ti* *nissu* *zinab* *ʔay-nəbər-ə-n*
 at=D.fsg season that.msg rain Neg-have.PF-3msg.S-Neg
 ‘At that time, there was no rain.’
- c. *ʔitiʔ-a* *ħismti* *ʔiwan* *təməlisa* *ʔay-ti-məs’ʔi-n*
 that.fsg disturbed time return=fsg Neg-3-come.IMPF-Neg
 ‘That troubled era will never come back again!’

In the literature, temporal deixis is often referred to as exophoric reference (in contrast to cataphoric and/or anaphoric reference), which anchors a referent with the situational time (see Fillmore 1997 for an earlier discussion). Fillmore identifies two exophoric functions of demonstratives: (i) gestural and (ii) symbolic. The former function, as has been shown in section 2.2, requires a pointing gesture in order to identify a given referent, whereas the latter function involves knowledge about the communicative situation. The examples in (12) illustrate the latter, symbolic use because the role is determined by the shared knowledge rather than a pointing gesture. I return to this in section 4.

In languages with Tense feature, it has been assumed that T anchors the clause temporally by establishing an ordering relation among times (i.e., Utterance Time, Reference Time and Event Time (Demirdache and Uribe-Etxebarria 2004, Ritter & Wiltschko 2009; see also Welch 2012 for the same proposal based on Dogrib (Athabaskan), North-American indigenous language). In languages that lack Tense, spatial deixis or speech participants may anchor the clause. For example, in Blackfoot (Algonquian) where participants (ADDR/SPKR) anchor the clause, anchoring proceeds via the functional category INFL, where the feature person is assumed to reside (Ritter and Rosen 2003, Ritter & Wiltschko 2009). Assuming the category person subsumes 1st [Speaker] and 2nd [Addressee], Ritter & Wiltschko propose that the category INFL encodes Speech Act participants, which in turn determine speech act (=utterance) location (see section 5 for more on

this).⁷ In Halkomelem (central Coast Salish), where morphological **tense** marking is either optional or simply unattested, locative auxiliaries, which contrast along a spatial dimension, anchor the clause: they assert where relative to the utterance the event took place (Ritter and Wiltschko 2005). For example, the proximate auxiliary *i* (e.g., *í qw'eyilex tútl'ò*/ PROX dance he/ 'he is/was dancing [here].') is employed if the location of the reported event is the same as the location of the utterance. In contrast, the distal auxiliary *li* (e.g., *lí qw'eyilex tútl'ò*/DIST dance he/ 'He is/was dancing [there].') is employed if the location of the reported event is elsewhere (see also Galloway 1993:359, Gerdts 2010 for a detailed discussion).

Based on comparative data mainly from Indo-European languages, such as English, and North American indigenous languages, such as Halkomelem and Blackfoot, Ritter and Wiltschko (2005, 2009 *et seq.*) are one of the first to formalize the link between location, temporality and participant deixis as obligatory features of the clausal structure. They hypothesize that the substantive content of functional categories is subject to variation and that the universal functional category INFL requires deictic substantive content, i.e., content whose denotation is determined by the temporal, spatial or participant marking of the utterance context. In some languages like English, temporality is one of the key features for anchoring utterance situation; in some other languages like Halkomelem, location or spatial deixis is used as an anchor in clause-marking; still in some other languages, such as Blackfoot, the identity of participants is employed as an anchor to type utterances. In this case, INFL is contrasted based on properties of different features: in English, INFL is represented in Time and is reduced to the question of whether the reference situation includes “now” or “not now”; in Halkomelem, it is represented in Space and is reduced to the question of whether the reference situation is “here” or “not here”, while in Blackfoot, it is reduced to “us” or “not us”.

In Tigrinya, INFL is largely represented as Tese, based on whether the event situation includes ‘now’ or ‘not now’; for example, there is formal aspectual opposition that speaks to this in the clausal domain: Perfective

7 In many languages, copulas that express Tense or Time within a given utterance originate from demonstratives (see Heine & Kutave 2009 for a list of examples and grammaticalization path). For example, van Gelderen (2011) points out that the copula *shi* in mandarin Chinese comes from a demonstrative. In Tigrinya, the copula *ʔiy-* ‘be’ is not that far from *ʔit/z-* in form as /y/ and /z/ are commonly interchangeable in the language, as in *ħiyyi* vs. *ħizzi* ‘now’. It is therefore probable that the Tigrinya *ʔiy(y)-* started out as a demonstrative before it grammaticalized into a copula. I leave this conjuncture open here for further exploration (but see Gebregziabher *forthcoming*).

aspect is suffixing and Imperfective aspect is prefixing. In addition, Tigrinya distinguishes between past (perfective) and non-past (imperfective) events anchored in INFL. Nevertheless, Tigrinya can also exhibit nominal-tense marking (similar to Somali), as in *ʔiti wəṯadər-nəbər səbʔayki*/that soldier-be.pst husband.your/ ‘the ex-military husband of yours’, which can be attributed to the view that Tense can be interpretable on D. Thus, while Tigrinya appears in general a Tense or aspectual language, the fact that some deictic expressions are employed to express temporality and aspectual opposition may entail that the language may have a mixed system in anchoring temporal deixis in its clausal structure. In light of the above discussion, I am glossing over some detailed insights here and must conclude that for a full exposition, the deixis-tense/inflection connection must be revisited in Tigrinya, putting aside this question for future research.

3. The role and categorial status of Tigrinya spatial deixis

In the literature, there are two different views on the role of spatial deixis. Some scholars argue that spatial deixis is a body-oriented phenomenon and its role is to provide orientation in space (e.g., Diessel 2006). Other scholars claim that demonstratives are primarily used for social and interactive purposes rather than just for spatial reference (e.g., Peeters & Özyürek 2016). While the debate is still well and alive (see Diessel 2020 for recent overview), there seems to be a general consensus around the view that the role of demonstratives is to coordinate the interlocutors’ joint focus of attention, as one of the most fundamental functions of human communication (Diessel 2006:463). This appears unsurprising, given that demonstratives are one of the few closed class categories that are universally present in natural language.

According to Diessel (1999), demonstratives may occur in four syntactic contexts: adnominal, pronominal, adverbial, and identificational. While Himmelmann (1996) and others argue that adnominal is more basic than the other categories, Dixon (2003) and others include syntactic functions, namely verbal, not accounted for by Diessel, as part of the basic syntactic category of deictic expressions (see Diessel 2014 for a current overview).

In this section – radically departing from the previous literature – I propose that all demonstratives in Tigrinya fall under the same extended projection of the category D (short for determiners). Following the feature geometric approaches (see Harley & Ritter 2002, Cowper & Hall 2014, Ritter & Wiltschko 2018a, *inter alia*), I argue that the different roles and forms spatial deictic expressions manifest are realizations of different semantic/pragmatic and syntactic features associated with the category D in a given domain of discourse. Particularly, I argue that the semantic/pragmatic features (often referred to as ‘parameters’ in the literature, e.g., Imai 2003)

are manifestation of the formal features, such as [SPKR] and/or [ADDR], [PROX] and/or [DIST] etc. on the extended projection of DP (see Ritter and Wiltschko 2018 for a recent typological account of the left periphery in the nominal domain).

3.1 Nominal demonstratives

Diessel (1999:73-74) proposes that there are three diagnostics for determining whether the distinction between adnominal and pronominal DEMs ought to be maintained or collapsed into a single category (e.g., nominal). First, if adnominal and pronominal forms differ in their phonological shape, they should belong to distinct categories. Second, if they differ in inflectional patterns, they may belong to distinct categories. Third, if they pattern together with other word types, such as determiners, 3rd person pronouns, and/or possessives, that can be taken as evidence either in favour of maintaining two categories or collapsing them into one.

In this section, I show, using Diessel's diagnostics, how the Tigrinya demonstratives *ʔiz(iʔ)-/ʔit(iʔ)-* 'this (PROX)/that (DIST)' and *niss-* 'that (one)' should come under the same syntactic category irrespective of their formal and functional differences. In the descriptive literature, the Tigrinya PROX and DIST demonstratives are often regarded as adnominal and pronominal without much of a diagnosis (see Leslau 1941 for an earlier discussion; see also *Esayas this volume*). This categorization prima-facie conforms Diessel's (1999) first formal criterion and suggests that the two demonstratives should come under different categories. However, based on the other two criteria and other additional properties, I argue that there is no categorial distinction between adnominal and pronominal forms: all spatial DEMs should come under the same category with the pragmatic and formal features being added on the extended projection of the category D.

Diessel's (1999) second criterion targets inflectional patterns. In Tigrinya, demonstratives inflect for phi-features, and this indicates that there may be no significant variation or distinction between the adnominal and pronominal forms in this regard. That is, Tigrinya DEMs show obligatory gender and number contrast and agree with the nouns they modify (14a)-(15a) or substitute for, in the case of pronominal forms, (13b)-(14b). They also involve a default m.sg element that is coreferential with a clause (13b).

- | | | | |
|---------|------------------------------------|-------------------------------|--------------|
| (13) a. | <i>ʔitiʔ-/ʔiziʔ-aməftih</i> | <i>ʔax'əbbillə-nni</i> | ADJECTIVAL |
| | that-f.sg key | hand.over=it=me | |
| | 'Hand me over that/this key.' | | |
| b. | <i>niss-u</i> | <i>nəʕay ʔay-ti-ngərə-nni</i> | (PRO)NOMINAL |
| | that-m.sg | to=me neg=2=tell-pf-1sg.obj | |
| | 'Don't tell me that!' | | |

- c. *ʔitiʔ-/ʔiziʔ-a tiraḥ hab-ə-nni* (PRO)NOMINAL
 this/that-f.sg only give.PF-3msg.S-1sg.O
 ‘(Please) give me only this/that.’
- (14) a. *ʔitiʔat-/ʔiziʔat -ən məfatih ʔax’əbbillə-nni* ADJECTIVAL
 that-f.pl keys hand.over=it=me
 ‘Hand me over those/these keys.’
- b. *nissat-om nəʕay ʔay-ti-ngərə-nni* (PRO)NOMINAL
 that-m.pl to=me neg=2=tell-pf-1sg.obj
 ‘Don’t tell me those!’
- c. *ʔitiʔat-/ʔiziʔat-ən tiraḥ hab-ə-nni* (PRO)NOMINAL
 this/that-f.pl onlygive.PF-3msg.S-1sg.O
 ‘(Please) give me only those/these.’

The full paradigm of the agreement markers attached to the third person *niss-* and the two bona-fide demonstratives, *ʔiz(i)ʔ-* or *ʔit(i)ʔ-* (bolded), are given in Table 2 (see also Kogan 1997:434).

Table 2. Formal distinction of Tigrinya spatial deixis (to be revised)

	PROX(imal)	DIST(al)	±PROX/ ±DIST
Phi-features	‘this’	‘that’	‘that one’
[-FEM,-PL]	ʔiziʔ-a	ʔitiʔ-a	niss- a
[+FEM,-PL]	ʔiz(i)ʔ-u(y)	ʔit(i)ʔ-u(y)	niss- u
	‘these’	‘those’	those
[+FEM,+PL]	ʔiziʔ-ən	ʔitiʔ-ən	nissat- ən
[-FEM,+PL]	ʔiziʔ-om	ʔitiʔ-om	nissat- om

The fact that the inflectional paradigms appear to have the same form (irrespective of the base forms *niss-*, *ʔiz(i)ʔ-* and *ʔit(i)ʔ-*) suggest that all the DEM forms can belong to the same category.

In terms of Diessel’s third criterion – whether they pattern together with other word types, such as determiners, 3rd person pronouns, and possessives – there appears to be no distinction between adnominal and pronominal forms in Tigrinya. First, note that Tigrinya uses the same base demonstrative forms as definite articles. Kogan (1997:434) states that Tigrinya has two series of “deictic pronouns” that make a distinction between near (“this/these,” also “**the**”) and remote (“that/those”) objects as shown in (15) below (formal or regional variants are given in parentheses):

- (15) Gender
- | | | |
|------------|---------------------|----------------------|
| | Masculine | Feminine |
| sg. ‘this’ | <i>ʔizu (ʔezuy)</i> | <i>ʔiza (ʔiziʔa)</i> |
| ‘that’ | <i>ʔitu (ʔituy)</i> | <i>ʔita (ʔitiʔa)</i> |

pl. ‘these’	<i>ʔizom</i> (<i>ʔəziʔom</i> , <i>ʔəziʔatom</i>)	<i>ʔizän</i> (<i>ʔiziʔen</i> , <i>ʔiziʔatən</i>)
‘those’	<i>ʔitom</i> (<i>ʔitiʔom</i> , <i>ʔitiʔatom</i>)	<i>ʔitän</i> (<i>ʔitiʔin</i> , <i>ʔitiʔatən</i>)

(adapted from Kogan 1997:443)⁸

In particular, Kogan (1997) points out that remote demonstratives may function as definite articles as in *ʔitom kahnat* ‘the priests’. The fact that spatial deictic expressions and definite articles share the same phonological shape provides further evidence to my initial hypothesis that the two should be labelled under the same category (see Hasselbach 2007 for a diachronic explanation how determiners/articles are historically derived from demonstratives in Semitic languages). Recall also Diessel’s first criterion according to which formal similarities give rise to similarities in the nature of the category.

Tigrinya spatial deictic expressions also pattern the same with possessives in terms of their syntactic distribution. Compare the examples in (17). When the adnominal and pronominal forms are compared with those of the determiner *ʔita* ‘the(f.sg)’ (16b), the 3rd person pronoun *nissa* ‘she’ (16c), and the possessive forms *nata* ‘her/hers’ (16d), the demonstrative patterns closely with the 3rd person and possessive pronouns in Tigrinya (as opposed to English, where the demonstrative patterns most closely with the possessive forms only, as the glosses illustrate). The only difference lies in their phonological form (which goes back again to the first criterion of formal variation).

(16)	Adjectival		Pronominal	
a.	ʔiziʔa mäs’haf	k’əyah-yya	ʔiziʔa k’əyah-yya	
	D.fsg book	red-be-3fsg.S	D.fsg red-be-3fsg.S	
	‘This book is red.’		‘This is red.’	
b.	ʔita mäs’haf	k’əyah-yya	* ʔita k’əyah-yya	
	D.fsg book	red-be-3fsg	D.fsg red-be-3fsg.S	
	‘This book is red.’		Int. *‘ The red. ’	
c.	nissa mäs’haf	k’əyah-yya	nissa k’əyah-yya	
	D.fsg book	red-be-3fsg.S	D.fsg red-be-3fsg.S	
	Int. *‘ It/she book is red.’		‘ It/she is red.’	
d.	nata mäs’haf	k’əyah-yya	<u>nata</u> k’əyah-yya	
	her book	red-be-3fsg	her red-be-3fsg.S	
	‘Her book is red.’		‘Hers is red’	

8 Note that Kogan (1997) adopts a different transliteration of the central vowels in Tigrinya: /ə/ is used for the high central vowel /i/ and /ä/ for mid-central vowel /ə/. Kogan also mentions other deictics, such as *ʔabzuy* ‘here’, *ʔabʔu* ‘there’, *ʔinkabʔu* ‘thence’ without any contextual use and explanation.

Even though the base phonological form of the DEMs does not appear identical, the parallel distribution and inflectional pattern they all share provide further evidence in support of maintaining a single nominal category, which I dub here D (short for determiners), for demonstratives as well in Tigrinya. In other words, while Tigrinya demonstratives can be used as pronouns (16a), attributive adjectives (16b), or as spatial or temporal adverbs (1c), there are no language-internal criteria that would justify a categorical division between adnominal and adjectival demonstratives in the language (see also section 3.2).

Thus, based on the above arguments, I conclude that in Tigrinya the two nominal categories – adnominal and pronominal – should be analyzed as belonging to a single category called nominal, represented as part of the extended projection of the category, D (see Section 4 for more on this point).

3.2 Adverbial demonstratives

From word class categories perspective, demonstratives (DEMs) cross-linguistically may also include adverbials (Diessel 1999, Dixon 2003, a.o). Dixon (2003) identifies three sub-categories of adverbial DEMs: (i) locational, (ii) manner, and (iii) temporal (but see Diessel 1999 for only considering the first two under this category).

In Tigrinya, as we have seen in section 2.1, adverbial DEMs are largely locational (i.e., used to identify the location of the eventuality of the predicate w.r.t some point of reference or anchor). The anchor or point of reference in Tigrinya is the speaker. And Tigrinya has two locational adverbial DEMs that specify contrastive distance w.r.t the speaker: *?abzi/?abzuy* ‘here’ and *?abti/?ab?u* ‘there’, which encode referents ‘near to’ and ‘far from’ the anchor/speaker, respectively.⁹ When we closely look at these forms, they are a combination of locative prepositions and demonstratives; for example, *?abti* ‘there’ is composed of the distal DEM *?iti* plus the locative preposition *?ab* ‘at’, that gives rise to the meaning ‘at that place’. In Tigrinya, however (unlike English *here/there* type adverbial DEMs), they are not limited to this type of purely adverbial function of describing the location of the eventuality denoted by the verb (see the discussion in section 2.2 for more on this). In other words, while demonstratives are used primarily for spatial reference, there are pragmatic functions and/or interactive roles that they may play as well (see, e.g., Enfield 2003, Eriksson 2008 for a different view).

9 There are also other deictic forms such as *kab?u/?inkab?u* ‘thence’ with allative (motion toward) and ablative (motion from) forms (see Kogan 1997:443 for a few examples).

The second category of adverbial DEMs, Dixon identified, is **manner** (e.g., English *thus*). In many cases, these forms appear in pragmatic contexts or ‘discourse deixis’, such as situational and non-situational uses of deictic expressions. In situational use, they refer to how the event denoted by the predicate occurred (often associated with gesture, reaching out or imitation). In non-situational context, they are often used to refer to the whole propositions or quotations. In Tigrinya, there are no special independent manner adverbial DEMs; rather, either simple DEMs or a combination of simple DEMs and prepositions or case markers are used. For example, in the Q&A dialogue in (17), the speaker uses (i) a simple proximal *?izi?a* (17b) or a distal *nissu* DEM (17c), or (ii) a DEM in conjunction with a dative marker (e.g., *ni-*) as in (17d) is employed to refer to the whole proposition (17b).¹⁰

- (17) a. səb ki-bəliʃ ?iyy-u zi-nəbbir, hakk’əy?
 person FUT-Ø-eat.IMPF be-3msg.S REL-live right.1sg
 ‘Humans eat to live, right?’
- b. ?izi?a-s tə-gaggi-xa!
 This.fsg-also PASS-wrong.PF-2msg.S
 ‘That’s not true’ (Lit. This one, you got it wrong!’)
- c. nissu-s hak’k’i-xa!
 That.m.sg-also right.PF-2msg.S
 ‘That is true (lit. you are right on that.)’
- d. nə-(?i)zi?a-s ?ay-?amnə-ka-n!
 DAT-this.fsg-also Neg-believe-2m.sg.S-Neg
 ‘I don’t believe you on that one (lit. That one, I don’t believe you.)’

Thus, manner adverbial demonstratives in Tigrinya are not formally different from other DEMs; they are essentially a combination of the categories P and D, where P may have a range of semantic features with it as an extended projection of D, (in the sense of Grimshaw 1991/2000), even though their role is limited to the discourse deixis, in the sense that they only give reference to a proposition (see Himmelmann 1996 for general discussion).

Similarly, Tigrinya does not have an independent adverbial demonstrative – for what Dixon identified as the third type – **temporal**. Dixon (2003) states that spatial features of nominal or locational DEMs may be extended by analogy to talk about time reference. While it is natural for languages to have temporal adverbs (e.g., English *now* and *then*) to express temporal features of proximal and distal reference w.r.t the time of utterance,

10 For Dixon (2003:72), verbal DEMs may actually be manner DEMs with an additional expanded use. He states that languages with verbal DEMs do not have manner DEMs.

more often languages use the locational or adnominal demonstrative forms with or without any particular modification for the same purpose (see Ritter and Wiltschko 2009 for a typological take on temporality based on Blackfoot and Halkomelem). In Tigrinya, as we have seen above, since location DEMs simply involve P+D (or case-inflected nominal DEM forms), there is no evidence for maintaining the distinction between nominal and locational adverbial forms. In other words, Tigrinya temporal forms do not have an independent morphological marking for pointing time reference, the same DEM forms (along with time adverbs) are used to express temporal reference in a discourse (see Section 2.3 on temporal deixis for more on this point); hence it is best to dispense with this category as its separate categorization has no empirical bearing in Tigrinya.

I therefore maintain that in Tigrinya DEMs are not easily mapped onto locational, manner and temporal adverbial categories. Rather, as I show in section 4, they are manifestations of a combination of DEMs with a P element along with other semantic/pragmatic features. In other words, all DEMs in Tigrinya are part of the extended projection of the D head, with different semantic/pragmatic features realizing their different roles in a given discourse.¹¹

3.3. Identificational demonstratives

In many languages, demonstratives also play the role of identification when they occur in copular and non-verbal clauses (Diessel 1999:78-79). Diessel notes that in some languages identificational DEMs are formally distinguished from nominal forms via phonological or morphological features, and as such hold a distinct category from other DEM types.¹²

In Tigrinya identificational demonstratives are formally different from other types of demonstratives because they involve a verbal element. That is, such demonstratives are verbal (or manner adverbials, in the sense of Dixon 2010) and are formed by combining the suppletive form of the existential

11 Typologically, there are two types of spatial deictic expressions: nominal (e.g., *this* and *that*) and adverbial (e.g., *here* and *there*) (see Halliday & Hasan 1976, Lyons 1977, a.o for an earlier typological account). In many languages, the two types are closely related (Diessel 1999). They usually include the same deictic roots and are defined by two basic concepts of language: *joint attention and deixis* (Levinson 2004).

12 English, for instance, doesn't have a distinct set of these DEMs but employs a form of the copular verb *be* with a pronominal DEM to express the same meaning, as in *That's the girl I saw*. French, on the other hand, appears to have a special demonstrative form, namely *voilà* 'look/ behold', derived from the verb *voir* 'to see' and the DEM adverb *là* 'there' that plays the role of identification.

verb $\sqrt{h-l-w}$ ‘to exist’, i.e., *ʔinnih-l-* ‘here it is’ with pronominal affixes. For example, in (18) such DEMs are used when the speaker wants to draw the attention of the addressee to the referent/region (in this case, money or individual) by accompanying visual or acoustic gestures obligatorily.

- (18) a. **ʔinnəh-l-ka** gənzəb-ka VERBAL
 here=be=1sg money=2m.sg
 ‘Here is your money (handing over).’
 b. **ʔinnih-ət-l-ka** bəl
 here=be=Appl-2msg.S say
 ‘Here SHE is or it is (gesturing to a feminine object appearing to the scene)’

In some Tigrinya varieties, the form of the verbal demonstrative changes; for example, the form *ʔinnəhllika*, which is more common in Tigray varieties, alters to *ʔinnihe* and *ʔinnohalka* as you move away from the center in both Eritrea and Tigray (see Thomas Leiper Kane 2000:1514-16 for illustrative examples; see also section 4.2 for further discussion). Notice also that in many cases, this demonstrative gives rise to a different meaning, namely ‘behold’ as in the biblical examples given in (19):

- (19) a. yosef kəfa nihizbi **ʔinnəho** lomi ni-ʕaxatkumi-n
 Joseph also to=people behold today to=you=and
 ni-midru-kumi-n nifərʔon tə-ššayt’ə-kum ʔiyy-ə.
 to=earth=your=and to=Pharaoh PASS=CAUS=sell.PF-you be=1sg.S
ʔinnəholkum kaʕa zərʔi nəta midri zirʔ-u-wwa
 Behold also seed to=the earth sow.PF-3msg.S=3msg.O
 ‘Then Joseph said to the people, “Behold, I have brought you and your land today for Pharaoh. Behold, here is seed for you, and you shall sow the land.” (GEN 47:23)
 b. šifū nissu nix’al ʔigziʔabher silə-zəy-səmaʕ-ka
 thenhe to=word Lord COMP=Neg=listen.PF=2msg.S
ʔinnoholka kabay mis-kəd-ka ʔanbəsa
 Behold from=me with-depart=2msg.S lion
 ki-x’ətllə-ka ʔiyy-u bəll-o
 Fut=kill=3msg.S=2msg.O be=3msg.S say.PF-3msg.S=3msg.O
 ‘Then he said to him, because you have not obeyed the voice of Yahweh, behold, as soon as you are departed from me, a lion shall kill you.’ (1Kings 20:36)

There is often confusion in the literature with the identification of the applicative marker from the verb “to have” or “to exist” in Tigrinya. When the verb to have or of existence (with the root $\sqrt{h-l-w}$) combines with demonstratives and discourse markers, the initial and final radicals of the root may elide or altered into a vowel, leaving the root with a single radical

–*l*– only, as in the negative *yə-ll-ə-n*/Neg-have-3msg-Neg/ ‘he/it doesn’t exist or he/it is not present’. The fact that the applicative marker –*l(l)*– that always accompanies an object marker (e.g., *bəlliſ-u* ‘he ate’ □ *bəlliſ-u-lla* ‘he ate **for or against her will**’) has the same form as the suppletive verb-to-have is often the source of the confusion. Let’s address the confusion here.

One piece of evidence that the –*l(l)*– in the DEM is part of the verb-to-have (and not an applicative (APPL) marker) comes from the interpretation of similar constructions. Applicatives generally have benefactive, instrumental or malefactive interpretation (Baker 1988, Pylkkänen 2008, McGinnis 2008, a.o), but verb “to have/exist” generally encodes possession or existence (see Freeze 1992, Harley 2002 for discussion). In (20), for example, the suppletive verb-to-have/exist but not the APPL meaning is implicated, because there is no instrumental/benefactive/malefactive meaning involved in the construction.

- (20). a. *mis-ħawəy ʔinnaha-ll-ku*¹³ *məs’iʔ-u*
 with-brother=my COMP=be=3fsg.S come.PF-3msg.S
 ‘He arrived/came, when I was with my brother.’
- b. *səbʔay wəy səbəyti mənfas-t’ink’ola ʔintə-ll-əwo* (LEV 20:27)
 man or woman spirit-magic COMP=be-3msg.S
 ‘When a man or a woman has in them a spirit of the dead ...’

The second piece of evidence against the applicative view of the –*l(l)*– in verbal demonstratives comes from the fact that the morpheme actually doubles when the construction involves a benefactive reading as in the presentative construction given in (21a). Typical applicatives do not double in Tigrinya (21b).¹⁴

- (21) a. *ʔinnəhə-ll-əti-ll-ka məs’iʔ-a* (Thomas L Kane 2000:1418)
 here.=be=Appl=1sg come.PF-fsg.S
 ‘Here you go/have her, she is here/arrived for you.’
- b. **bəlliſ-u-ll-a-ll-a*
 eat.PF-3msg.S-Appl-3fsg.O-Appl-3fsg.O
 ‘He ate for her or against her will.’

Thus, based on the above facts, I conclude that the morpheme –*l(l)*– that appears in the verbal DEMs is not an APPL morpheme, rather a reduced form

13 The forms *ʔint/kə-ll-ku* are often used interchangeably (see Thomas Kane 2000 for examples).

14 For a detailed discussion on the different types of existential and applicative verbs, see Gebregziabher (2019, 2022).

of the existential verb $\sqrt{b-h-l}$ in Tigrinya.¹⁵ Nevertheless, it is possible that the two may converge in terms of their structural representation (see Pykkänen 2008 for a different but converging proposal based on data from Bantu languages).

Finally, Tigrinya appears to have locational DEMs that co-occur with agreement affixes, as the examples in (22) illustrate. (22) involves a complex DEM, derived from simple DEMs, such as $\text{ʔit-}/\text{ʔiz-}$, and directional prepositions, namely *nab*, plus agreement affixes. In both cases, the DEM needs to be accompanied by gesturing and/or mimicking action (e.g., movement of the hand or body) in order to reference the object proximal to both the speaker and addressee.

- (22) a. **nab-(ʔi)ti/uy** ʔa-bil-ki ʔazi-ø-yyo LOCATIONAL
 TO=that-msg CAUS.say-2fsg.S hold.PF-3fsg.S-3sg.obj
 ‘Hold it that way (or toward this direction)’
- b. **nab-(ʔi)zi/uy** ʔa-bil-ki ʔazi-ø-yyo
 TO=this-msg CAUS.say-2fsg.S hold.PF-3fsg.S-3sg.obj
 ‘Hold it this way (or toward this direction)’

To recap, we have seen that one of the primary functions of Tigrinya demonstratives is spatial reference, for indicating spatial distance of a referent from a deictic center. It is shown that the language doesn’t have independent or isolated verbal or adverbial demonstratives.¹⁶ It is argued that Tigrinya demonstratives are limited to the functional extended category of D that hosts different syntactic and semantic features (e.g., [ADDR], [SPKR], [\pm PROX], [LOC], etc.) and that other types are rather all derivatives of the

15 Tigrinya has different forms of the verb “have/exist” depending on the aspectual opposition of the verb (e.g., *nəbər-/nəyr-* perfective/gerundive form) but none of these are realized on the verbal demonstratives (ib). I thank Betsy Ritter for bringing this point to my attention.

- (i) a. *ʔinnəhə-ll-əti-**nəyr**-ka məs’iʔ-a
 here.=be=Appl=1sg come.PF-fsg.S
 ‘Here you go/had her, she was here/arrived for you.’
- b. bəlliʕ-u-ll-a-**nəyr**-u
 eat.PF-3msg.S-Appl-3fsg.O-Appl-3fsg.O
 ‘He had eaten for her or against her will.’

16 In fact, verbal DEMs are cross-linguistically rare (Dixon 2003). Nevertheless, there are some other forms in Tigrinya such as *niiyyəw*, *nəzzəw/nəɖɖəw* ‘toward this/that’, *kabʔu* ‘thence’ and *nabʔu* ‘hither’ that appear to have space projection that I leave for future research.

same basic element D. In what follows, I show that Tigrinya demonstratives may also serve a variety of other pragmatic functions.

4. Pragmatic functions

In this section, I show that Tigrinya demonstratives are also used for interactive pragmatic purposes. Broadly, there are two basic pragmatic functions: (i) ‘exophoric’, which refers to the role of DEMs to demarcate non-linguistic entities in the speech situation, and (ii) ‘endophoric’, which identifies to the role demonstratives refer to elements of the ongoing discourse (see Himmelmann 1996, Diessel 1999, a.o). Diessel (1999:93) further divides the endophoric function into ‘anaphoric’, ‘discourse deictic’, and ‘recognitional’ uses. While anaphoric function refers to the co-referential nature of DEMs with a prior referent or noun phrase, discourse deictic is the linking of DEMs to a proposition to which they refer. Recognitional DEMs, on the other hand, refer to the identification of a referent by the addressee on the basis of shared knowledge (see Manfredi 2014, Diessel 2016 for discussion). In the previous sections, I touched upon how these functions (especially, the first two pragmatic functions) are portrayed in Tigrinya, in what follows I further demonstrate how these DEM functions are represented linked to universal formal and semantic features of the extended functional category D in Tigrinya.

4.1. Exophoric vs. Endophoric functions

Generally, exophoric functions of DEMs (often also referred to as non-situational, cf. Himmelmann 1996) are pragmatically anchored in the speech situation and always identify a deictic contrast either through a pointing gesture or a shared knowledge about the communicative situation. Tigrinya uses the same demonstrative types, *ʔitiʔ-/ʔiziʔ-* and/or *niss-* for exophoric pragmatic functions as the examples below illustrate:

- (23) a. **ʔitiʔ-a** ʔit-a nəwwih k’ə̀rni zəlləwwa laħmi
 that.fsg D-fsg long.f horn have.fsg cow
 ‘that (DIST) cow that has a long tail’
- b. **ʔiziʔ-a** ʔiz-a nəwwih k’ə̀rni zəlləwwa laħmi
 that.fsg D-fsg long.f horn have.fsg cow
 ‘that (PROX) cow that has a long tail’
- c. **niss-a** ʔit-a nəwwih k’ə̀rni zəlləwwa laħmi
 that.fsg D-fsg long.f horn have.fsg cow
 ‘that (PROX to you) cow that has a long tail’
- (24) a. ʔit-a/***ʔitiʔ-a**ʕaddi-ko fəss’ima ʕany-a
 D-fsg/this.fsg country=FOC completely ruin.PF-3fsg.S
 ‘That country (right there!) is completely wrecked.’

- b. ʔiz-a/*ʔiziʔ-a ʕaddi-ko fəss'ima ʕany-a
 D-fsg/this.fsg country=FOC completely ruin.PF-3fsg.S
 'This country (right here!) is completely wrecked.'
- c. ʔit-a/*niss-a ʕaddi-ko fəss'ima ʕany-a
 D-fsg/this.fsg country=FOC completely ruin.PF-3fsg.S
 'That country (right near to you!) is completely wrecked.'¹⁷

The examples in (23) and (24) illustrate the two basic exophoric functions of the Tigrinya demonstratives: (23) illustrates, what Fillmore (1997) called the exophoric gestural use of the adnominal demonstratives. (24), by contrast, illustrates what is known in the literature as the symbolic use of adnominal demonstratives, as the demonstratives do not require a pointing gesture rather determined by a shared knowledge of the situational context. Notice that different from the gestural use, the symbolic function can only be expressed by using the reduced forms of the actual demonstratives (as the * signify) (cf. (24)).¹⁸

Anaphoric use of demonstratives, by contrast, refers back to previously mentioned participants in the discourse. Diessel (1999:102) points out that anaphoric uses may be adnominal or pronominal by nature, but it is always co-referential with a preceding DP. In Tigrinya, again, there is no special form of the demonstratives that undertake the anaphoric function (see also Esayas 2003 for some illustrative examples). The only unique property is that Tigrinya employs the reduced forms of the demonstratives (that normally serve as determiners/articles in the language) and that only the proximal DEM is used for this purpose. Consider the following examples:

(25) Context: a story about a husband and a wife who live in the same house with two of their children.

k'ədəm hədə-səbʔayin hənti-səbəytin yi-nəbru nəbər-u
 Long ago one.m-man one.f-woman 3-live.IMPF-pl.S be.PST-3pl.S
 'A long time ago, there was a man and a woman.'

- a. ʔit-a-səbəyti məmhir ʔiti-səbʔay-dimma nəgaday nəbər-u
 D-fsg-woman teacher D-msg-man=FOC merchant be.PF-3pl.S
 'The woman was a teacher and the man was a merchant.'

17 Notice that the pragmatic paradox that you, as a speaker, cannot be in both within the same deictic space (e.g., country) as the addressee rules out the use of the utterance in (i):

(i). *ʔiz-a ʕaddi **niss**-a-ko ʕany-a
 D-fsg country that.fsg.FOC ruin.PF-3fsg.S
 *'This country, this one (right near to you!) is completely wrecked.'

18 Although the exophoric use is often considered as more prototypical or the core function of DEMs, the issue is not settled in the literature (see Himmelmann 1996 for counter arguments; Diessel 2014 for an overview).

- b. ***ʔiz**-a-səbəyti məmhīr **ʔizi**-səbʔay-dimma nəgaday nəbər-u
 D-fsg-woman teacher D-msg-man=FOC merchant be.PF-3pl.S
 Int. ‘The woman was a teacher and the man was a merchant.’
- c. **ʔniss**-a məmhīr **niss-u**-dimma nəgaday nəbər-u
 D-fsg teacher D-msg=FOC merchant be.PF-3pl.S
 ‘She was a teacher and he was a merchant.’

At a first mention, the speaker uses the indefinite determiner (the same as the numeral one) to introduce the participants in the story. In this case, the speaker introduces male and female referents, which are pragmatically new and unanchored to the speech situation. On a second mention, the speaker employs the proximal demonstratives, *ʔit*- and *niss*-, to refer back to the participants previously mentioned in the discourse (25a). While the distal demonstrative is ruled out (25b), the use of the 3rd person demonstrative also appears deviant (25c) for some speakers within this context. Nevertheless, the most obvious way to identify a co-referential DP is the pronominal demonstrative *niss*- as we can see from the following example:

(26) Context:

biʔamhoʔ arbaʕtə k'əlditat nəggir-ka-na ner-ka.
 Last week four jokes tell.PF-2msg.S-1pl.O be-pst-2msgS
 ‘Last week you told us four jokes.’

- a. **nissat-ən**-do dəgimka mi-nəggər-ka-na?
 this.fpl-Q again NML-tell.PF-2msg.S-1pl.O
 ‘(Do you mind) telling us these again?’
- b. ***ʔitiʔat-ən**-do dəgimka mi-nəggər-ka-na?
 that.fpl-Q again NML-tell.PF-2msg.S-1pl.O
 ‘(Do you mind) telling us these again?’
- c. ***ʔiziʔat-ən**-do dəgimka mi-nəggər-ka-na?
 that.fpl-Q again NML-tell.PF-2msg.S-1pl.O
 ‘(Do you mind) telling us those again?’

As we can see, the use of the pronominal demonstrative for anaphoric purpose to co-referentially identify a co-referenced NP, in this case ‘four jokes’, is unsurprising. However, Tigrinya also developed a special use of the distal (as well as proximal) demonstratives based on topicalization/focalization. In other words, the anaphoric use may give rise to co-referential focalized DP [D N DEM]. In this case, the position of the full demonstratives is after (as opposed to before) the referent NP accompanied by the determiner (27). In other words, the demonstrative is part of the larger DP but occurs phase-finally, with a copy of the pronoun left dislocated .

- (27) a. [ʔit-a məmhir ʔitiʔ-a] ɸaft-əy ʔiyy-a
 D-fsg teacher this.fsg sister=my be-3fsg.S
 ‘That teacher (right there!) is my sister.’
- b. [ʔiz-a məmhir ʔiziʔ-a] ɸaft-əy ʔiyy-a
 D-fsg teacher this.fsg.FOC sister=my be-3fsg.S
 ‘This teacher (right here!) is my sister.’
- c. [ʔit-a məmhir niss-a] ɸaft-əy ʔiyy-a
 D-fsg teacher this.fsg sister=my be-3fsg.S
 ‘That teacher (right near to you!) is my sister.’

In (27), the subject is somehow emphasised by a sequence of two proximal demonstratives (technically, the first being a determiner). In this case, the demonstratives not only identify a referent, which has been already mentioned in the previous discourse, but also referents on the first mention. For instance, the same utterance can be employed when the speaker is introducing his/her sister for the first time on the scene or it could be a response to the question “who is that teacher/woman?” Tigrinya demonstratives can also function as discourse deictic expressions. Discourse deictics, according to Diessel (1999), do not refer to a preceding referent or noun phrase; rather they highlight the whole proposition (see the discussion in section 3.2 for illustrative examples).

Finally, recognitional uses of deixis serve to activate information that is new (non-anaphoric) and not located in the surrounding environment; according to Himmelmann (1996:240), recognitional deixis involves reference to information assumed by the speaker that has not yet been mentioned in the preceding discourse, and serves to signal the hearer that the speaker is referring to a specific but presumably shared knowledge. In Tigrinya, the example in (29) can be introduced out-of-a blue or suddenly to a conversation without previous context, but notice that the longer form of the DEM is prohibited in this context. And unsurprisingly the use of the pronominal *niss-* is also ruled out because recognitional deixis, by definition, are adnominal (Diessel 1999). In this example, the speaker assumes that the addressee shared the same experience with the speaker.

- (28) a. ʔit-i riʔdə-məret yəfirriɸ nəyru ʔay-konə-n
 D-msg earthquake scary be.PST.3msgNeg-be-Neg
 ‘That earthquake was scary, wasn’t it?’
- b. *[ʔitiʔ-i/niss-a riʔd-məret] yəfirriɸ nəyru ʔay-konə-n
 that-msg/this.fsg earthquake scary be.PST.3msg Neg-be-Neg
 ‘That earthquake was scary, wasn’t it?’

In (28), the ‘earthquake’ is addressee-old but discourse new; if that specific referent that the speaker has in mind is unknown to the addressee,

then the addressee would likely ask for clarification as to what the speaker is intended to convey. The assumption is that the speaker has told the addressee about a specific earthquake recently enough (or the story was memorable enough) that of all the earthquakes in the world, one earthquake (perhaps the one that has the highest measure in richter scale) is foremost in the shared knowledge between the speaker and the addressee. Thus, the use of *ʔit*- serves to activate that shared knowledge in the mind of the addressee.

4.2. Parameters or deictic features

In the literature, there are deictic features or often called ‘parameters’ or ‘primitives’ that are considered as core semantic components of deictic expressions (see Fillmore 1997, Imai 2003, a.o for discussion). Understanding these core semantic features is key for figuring out how languages divide spatial deixis and whether the spatial use is the primary function of DEMs or not. In this spirit, Imai (2003), for example, analyzes the nature of spatial deictic features or parameters and claims that the primary parameter in spatial deixis is not relative distance, rather [contact/control]. Based on a survey of 420 languages, Imai proposes four universal spatial deictic features/parameters: (i) anchor, (ii) spatial demarcation, (iii) referent/regional configuration, and (iv) function. In what follows, I briefly discuss some of these parameters, as they appear relevant to Tigrinya (interested readers refer to Imai 2003, Ch. 3 for a detailed discussion). I begin with the function of spatial deictic expressions.

Anchor is the base to which referents in the universe of discourse are related to deixis (Imani 2003:15-16). It is the contextual point of reference to which the referent is related. Features from this category include [speaker], [addressee] and both [speaker & addressee]. Because by definition DEMs encode the location of a referent relative to the anchor and almost all of the languages examined by Imai (2003) have the anchor feature [SPKR]/[ADDR], this category is assumed to be universal. For example, as we have seen above, in Tigrinya the DEMs *ʔit(iʔ)*- ‘that’ and *ʔiz(iʔ)*- ‘this’ are speaker-anchored, while *niss*- ‘this (closer to the addressee)’, is addressee-anchored (because it only makes reference to the proximity of the referent to the addressee). According to Imai (2003), languages with three-way demonstrative systems (like Tigrinya) may involve two types of systems: person-oriented and distance-oriented. Person-oriented DEM systems use both the speaker and the addressee as anchors, encoding referents that are close to the speaker, closer to the addressee, or far from both. Distance-oriented systems on the other hand employ a single anchor, the speaker, and encode a three-way distance contrast from the anchor using the features proximal, medial, and distal. Tigrinya anchor features are encoded in the demonstrative system (sec. 2). However, Tigrinya is not

solely person-oriented or distance-oriented, rather DEMs may have both features in the language.

In Tigrinya, distance features are encoded by either bare DEMs or a combination of positions along with anchor features. For example, DEMs such as *ʔitiʔ-/ʔiziʔ-* are considered speaker-anchored because they encode distance contrasts – DIST and PROX – relative to the speaker.¹⁹

The referent/region configuration includes four sub-categories: quality, motion, posture, and visibility. Certain Tigrinya DEM forms encode features of visibility including the feature [inclusion], which is not represented in Imai's typological inventory of features. For example, recall that *wəyy-* in Tigrinya identifies a referent that is invisible and remote to the speaker as in *wəyya səbəyti ʔabəy ʔalla*/that.INV woman where exist.3fsg/ 'where is that woman (I don't see her here)'. In addition, invisible unbounded referents can be demarcated by combining the preposition *ʔab-* 'at, over, etc.' and the spatial DEMs *ʔitiʔ-/ʔiziʔ-*, as in *ʔab-z-tat dill-ə-yyo*/at-this-PL find.PF-3msg-3mfsq.O/ 'search it over here'. I leave open whether the other features are encoded in the Tigrinya DEM forms (but see Esyayas *this volume* for discussion on [motion]).

The final parameter Imai's (2003) typology of features identified is "function". Under this parameter, the only spatial deixis function feature relevant to Tigrinya is [offerative]. The feature [OFFR] indicates how the speaker and the addressee interact with a referent/region rather than how they perceive it. In Tigrinya, this feature is encoded by complex DEMs, such as P+DEM or other forms, but only does so in the limited context when the speaker is handing the referent to the addressee or gesturing with chin or hand. Recall the complex pseudo-verbal demonstratives *ʔinnəhə-l-* (*ʔinnə* + *h-l-w*) and the locational *nab-z-i/uy* (e.g., *nab* 'to' + *ʔiz-*) 'toward this direction or way' in Tigrinya; they both involve the feature [OFFR] because the speaker requires to using hand gestures that transmit the referent either into the possession or direction of the addressee.

Thus, if the above discussion is correct, "parameters" and "features" in Tigrinya may refer not only to formal features that are overtly realized, but also to covert ones (pragmatically embedded).

19 With regard to other spatial demarcation features, it is not obvious whether Tigrinya DEMs encode (or lexicalize) cardinal direction or geometric configurations of elevation (see Hayward 1990, Tosco 2012, Treis 2019 for relevant discussion on some Omotic and Cushitic languages). Further research may help ascertain this point.

5. Towards a formal analysis

In Tigrinya spatial deictic expressions exhibit a three-way deictic contrast: proximal to the speaker (cf. *?izi?*), distal from both the speaker and the addressee (cf. *?iti?*) and proximal only to the addressee (cf. *niss-*). Demonstratives also show formal variation in number and gender in Tigrinya. Different from many Semitic languages, Tigrinya presents two-sets of demonstratives – short and long forms, presumably lacking a unique isolated definite determiner. While proximal demonstratives are primarily deictic, their distal counterparts (e.g., *?it-*) may have the role of a determiner or definiteness marker.

In this section, I present a formal analysis of Tigrinya spatial deixis. Assuming lexical items are realizations of both formal and semantic features (Halle & Marantz 1993 and later work), I propose that contrast between space-oriented (i.e., [PROX] vs. [DIST]) and person-oriented (e.g., [SPKR] vs. [ADDR] & [+1]/[+2] vs. [-1,-2]) spatial deixis, can be accounted for by the feature realization rules given in (29).

(29) a. Basic spatial deixis

Proximal vs. distal [ADDR/SPKR, ±PROX]

- i. [D, ADDR/SPKR, +PROX] ↔ *?izi?*
- ii. [D, ADDR/SPKR, -PROX] ↔ *?iti?*
- iii. [D, ADDR, +PROX] ↔ *?niss-*

b. Derived spatial deixis

Locational [D, +LOC, PROX]

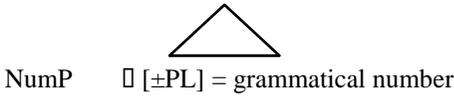
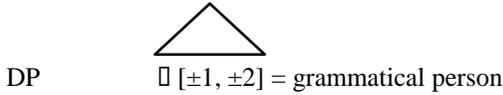
- iv. [D, SPKR, +LOC, +PROX] ↔ *?ab(?)z-* (e.g., *?abz-u-tat all-o* ‘somewhere here’)
- v. [D, SPKR, +LOC, -PROX] ↔ *?ab(?)t-* (e.g., *?ab-u-tat diləy-o* ‘somewhere there’)
- vi. [D, ADDR, +LOC, PROX] ↔ *?ab-niss-* (e.g., *niss-u-tat yitrəf-ka* ‘something like these’)

Abstracting away from the details, I adopt the standard assumption that head features can be binary and/or privative and that grammatical phi-features such as person, gender and number are represented as [±1, ±2], [±FEM] and [±PL], respectively. In addition, I assume that the pragmatic person features are privative and are realized as [SPKR] and [ADDR]. The grammatical person features are instead introduced in the extended DP structure.²⁰

20 Ritter & Wiltschko (2018) refer to this as the *Duality of Person Hypothesis*, according to which, there are two types of person features that occupy different structural positions: the first type consists of speech act roles or pragmatic

Now based on the above facts, I assume (following Ritter & Wiltschko 2018) spatial deixis in Tigrinya involves the structure in (30).

(30) Speech Act □ [SPKR, ADDR] = pragmatic person



Assuming that the pragmatic function of spatial deictic expressions reside in the speech act layer, whereas grammatical features (e.g., number) is in the DP layer, one might expect that the two types differ in their structural complexity. For example, since 3rd person pronouns in Tigrinya spell out pragmatic Person, they are expected to have a speech act layer. On the other hand, since 1st and 2nd persons spell out grammatical person, they would project bare DP (see Ritter & Wiltschko 2018 for a detailed discussion based on different types of pronouns) or presumably a lesser structure, such as PhiP (in the sense of Wiltschko and Dechané 2002).

Thus, Tigrinya uses three deictic particles, *ʔiziʔ-*, *ʔitiʔ-*, and *niss-* which can be roughly characterized as ‘this [+PROX, SPKR]’, ‘that [-PROX, SPKR]’, and ‘that [+PROX, ADDR]’, respectively. *Niss-* is underspecified for the pragmatic feature [SPKR] because the deictic center shifts from the speaker to the addressee.²¹ The Table in 3 presents formal feature decomposition for the different spatial deictic forms.

Table 3. Grammatical distinction for *niss-*

DEICTIC	[±FEM]	[±PL]	[±PROX, ADDR]	[±DIST, SPKR]	Gloss
<i>niss-u</i>	-	-	-	+	that (one)
<i>niss-a</i>	+	-	-	+	

person features and they are introduced in the speech act structure above DP. The second type consists of grammatical person features and they are introduced in the DP structure. Like the clausal spine, the nominal spine can be further articulated with projections like *Resp(onse)P* and *GroundP*, hosting a [SPKR] and [ADDR] features. See discussion below.

21 The other two are underspecified for [ADDR] as the deictic center focuses on the speaker.

niss-atom	-	+	-	+	these (ones)
niss-atəŋ	+	+	-	+	

Based on the above formal properties, a basic representation for each of the plural forms of the three spatial deictic expressions in Tigrinya is given in (31) below. Recall that the projection GroundP identifies shared background information about the interlocutors: addressee and speaker. The projection D, which hosts person features, is underspecified for proximal spatial deixis as they are all manifestations of the 3rd person forms in Tigrinya. In contrast, the distal spatial forms are formally similar to determiners, hence underspecified for person but appear always definite. Finally, number is realized as all spatial deictic expressions are inflected for number.

- (31) a. [_{GroundP} [+PROX, ADDR] [_{DP} D[-1/-2] [_{NumP} Num[+PL] ...]]] = nissatom
- b. [_{GroundP} [-PROX, ADDR/SPKR] [_{DP} D[+def] [_{NumP} Num[+PL] ...]]] = ?iti?atom
- c. [_{GroundP} [+PROX, ADDR/SPKR] [_{DP} D[+def] [_{NumP} Num[+PL] ...]]] = ?izi?atom

Thus, we have seen evidence for the formal decomposition of spatial deixis in Tigrinya. If the above discussion is on the right track, my proposal presents a new way to account for the differing roles of spatial deixis (along the lines of Ritter & Wiltschko 2018). In other words, what has been generally described as the different types and functions of Tigrinya spatial deixis in earlier literature can now receive a unified account under the same extended projection of the category D head (see Table 4 summary).

Table 4. Summary Demonstratives in Tigrinya

	Types of demonstratives					
	DET	PRO	ADV			VERB
			LOC	MANNER	IDENT	
+PROX	?izi?-	niss-	?ab-z-	kəm-zuy	?izuy-at	?innəhlka
-PROX	?iti?-		?ab-t-	kəm-tuy	?ituy-at	?innollka
-PROX	niss-		?ab-?-	kəm-?u	kəm-?u	?innihku

Summarizing this section, we have shown how the syntactic and pragmatic properties of spatial deixis/demonstratives in Tigrinya can be formally analyzed. Spatial deixis in Tigrinya share formal properties with determiners (e.g., ?izi?-, ?iti?-) and pronouns (e.g., niss-) and functional properties with pragmatic elements (e.g., identification). Tigrinya also

distinguishes between proximal and distal demonstratives with the main anchor being the speaker.

6. Conclusion

In this paper, I set out to provide a description and a comprehensive analysis of the Tigrinya spatial deixis system. Building on previous work, I presented a systematic analysis of spatial deixis in Tigrinya that accounts for their pragmatic and syntactic properties. Using formal features, I showed that Tigrinya exhibits a three-way contrast in spatial deixis: *niss-* [+PROX, ADDR], *?izi?* [+PROX, ADDR/SPKR], and *?iti?* [-PROX, ADDR/SPKR]. Taking issue with the previous literature, I argued that the primary function of demonstratives is not only spatial (e.g., location in space) or syntactic (e.g., establishing reference) but also pragmatic (e.g., situational use). By investigating the pragmatic function of Tigrinya spatial deixis, I presented how a formal approach would address a number of semantic distinctions that have never been discussed in the previous literature. I also showed that Tigrinya discourse deixis do not have cataphoric referents, supporting the view put forth by Diessel (1999, 2014) that among pragmatic functions, situational uses are basic (and the others are derived from them). For example, I argued that the adverbial or locational DEMs are not basic or do not have a lexicalized form in Tigrinya; rather they are derivatives of the adnominal plus other (functional) categories, such as, a preposition.

Finally, I hope to have convinced you that Tigrinya demonstratives involve both syntactic (e.g., [+1, ±2], [±PL]) and pragmatic features (e.g., [SPKR], [±PROX]), and the different forms are realizations of a systematic organization of these different pragmatic and formal features (as has been demonstrated in Ritter and Wiltschko 2018).

Abbreviations

1	1st person
2	2nd person
3	3rd person
Addr	addressee
D	Determiners
DEM	demonstratives
Dist	distal
Gen	Genesis
Inv	invisible
Loc	locational
Neg	negation
O	object
Prox	proximal

Rem	remote
S	subject
Spkr	speaker

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Keffyalew Gebregziabher
University of Toronto/CNRS