Demonstratives in Tima -

A corpus analysis

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1. Introduction

Cross-linguistic research has not only shown that all languages studied so far have demonstrative-like linguistic units (Peeters et al. 2021: 411f.), but also that their form and functions are subject to immense variation: Languages differ in the number of demonstrative categories, in the morphosyntactic forms they take (Peeters et al. 2021: 411f.) and in the functions they perform (Himmelmann 1996). Although most research (Diessel 1999, Peeters et al. 2021) suggests that the most basic function of demonstratives is to point linguistically to objects or persons within the utterance situation, i.e. to perform exophoric reference, Himmelmann's (1996) study in particular has shown that demonstratives perform various functions at the text-internal (endophoric) level as well. In this case, among other things, they serve information-structural purposes, i.e. they help the listener to identify the right referents (Himmelmann 1996: 226).

This study attempts to contribute to the understanding of the cross-linguistic diversity of demonstratives. Specifically, it will provide evidence for the basic functions of the three demonstrative categories of Tima, a Niger-Congo language. Based on a corpus of twelve narrative stories, this study will focus on the qualitative description of specific functions performed by three morphologically distinct demonstrative categories that have not been studied in detail. Due to the nature of the available linguistic data, i.e., transcriptions of narrative stories, this investigation will focus on the endophoric functions of the demonstratives. Ultimately, this analysis has two goals: On the one hand, it attempts to provide an overview of demonstrative functions in Tima on the basis of qualitative evidence. On the other hand, it attempts to open the discussion on several issues related to the demonstratives in Tima that will require further, more detailed analysis in the future.

To this end, this investigation will be structured as follows: After a brief overview of Tima in §1.1, the basic morphosyntactic features of the demonstratives are presented in §1.2.1, before previous analyses of the demonstrative functions are summarized in §1.2.2. The present corpus and its annotations are then presented in §2.1. In particular, I will describe the methodology of the present investigation, which makes use of both qualitative and quantitative analyses. In the further course of §2 the observed functions of the three demonstratives are presented and discussed on the basis of corpus

examples. Finally a brief summary of the observed functions and suggestions for future research are given in §3.

1.1. General information on Tima

Tima is a highly endangered language (Alamin 2012: 3) spoken by approximately 7000 speakers in Sudan (Dimmendaal 2014: 246), most of whom live in the Nuba Mountains. Dimmendaal (2014: 46) classifies it as one of the Katloid languages, along with the closely related languages Katla and Julut. The Katloid languages are part of the Kordofanian branch of the Niger-Congo languages (Dimmendaal 2014: 246).

Tima makes use of lexical and grammatical tone[1] and is subject to advanced tongue root vowel harmony (Dimmendaal 2014: 246). It is attested to have a flexible word order, varying from AVO, OVA, VAO to AOV in transitive clauses depending on the pragmatic context (Dimmendaal 2014: 246). Verbs in Tima can show great morphological complexity, as they have a total of 13 slots for bound elements (Dimmendaal 2014: 246f.). Nouns, on the other hand, usually consist of a noun-class prefix containing information about number, followed by a nominal root (Alamin 2012: 23). Nevertheless, nouns can be accompanied by several proclitics, such as a directional or instrumental marker (Alamin 2012: 44), as well as demonstrative enclitics, which will be presented in detail in section §1.2. Furthermore, nouns can be modified by possessive pronouns, adjectives and quantifiers, most commonly in the order shown in table (1). Note that there are no definite or indefinite articles in Tima.

Table (1): Word order within complex noun phrases (Alamin 2012: 65)[2]

noun=demonstrative	possessive pronoun	adjective	numeral/quantifier

A final note should be added on verbal arguments. These can be realized in different morphosyntactic forms in Tima. First, subject and object of transitive clauses are obligatorily marked by bound forms on the verb (Alamin 2012: 74), with third person referents indicated by zero forms. In addition to these bound person markers, independent pronouns or external noun phrases can be realized (Alamin 2012: 74).

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[1] However, most of the examples cited below are not transcribed for tone.

[2] The equal sign indicates the clitical attachment of the demonstrative roots.

After this brief introduction to the sociocultural setting and the most basic grammatical structures, we will now turn to the demonstrative system of Tima.

1.2. Demonstratives in Tima

Tima has three demonstrative roots: *-nʌ/-na³*, *-yaa* and *-weeŋ*, which according to Dimmendaal & Schneider-Blum (to appear) generally mark proximate (*-nʌ/-na*), distant (*-yaa*) or previously mentioned (*-weeŋ*) referents (Dimmendaal & Schneider-Blum to appear: 67). These roots will be referred to as demonstrative categories one, two and three. For the sake of clarity, table (2) provides an overview of the three roots, the demonstrative categories assigned to them, and the abbreviations used in the following.

Table (2) Demonstrative roots, categories and abbreviations

root	demonstrative category	abbreviation
-nʌ/-na	1	dem1
-yaa	2	dem2
-weeŋ	3	dem3

This section presents preliminary information on the three demonstratives, based on previous research, which will serve as a foundation for the corpus analysis in §2. Specifically, it describes the morphosyntactic forms and distributions and discusses the basic semantic and pragmatic profiles of the three demonstratives, as outlined in the studies of Alamin (2012) and Dimmendaal & Schneider-Blum (to appear).

1.2.1. Morphosyntactic forms

-Nʌ/-na, *-yaa* and *-weeŋ* are attached to many different types of morphemes and thus belong to a variety of different parts of speech. However, their embeddings can generally be grouped as follows: On the one hand, they attach themselves enclitically to nominal, adjectival or numeral hosts, and on the other hand, they form the roots of independent demonstrative pronouns (Dimmendaal & Schneider-Blum to appear: 68). In this section the structural properties of both embeddings are briefly described.

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³ The variation of *-nʌ* and *-na* depends on the ATR-property of the noun's root vowel (Alamin 2012: 59).

Free demonstrative pronouns in Tima consist of one of the three demonstrative roots combined with a number-differentiating prefix (Dimmendaal & Schneider-Blum to appear: 68). All three categories are attested to be combined with both a singular and a plural affix (Dimmendaal & Schneider-Blum to appear: 67f.). Table (3) shows the full paradigm of demonstrative pronouns. These will be referred to as dem1-pronouns, dem2-pronouns and dem3-pronouns according to their categories.

Table (3): Demonstrative pronouns (Dimmendaal & Schneider-Blum to appear: 68)[4]

demonstrative category	singular	plural
1	cí-ꜜnʌ́/cííŋ	í-ꜜnʌ/ííŋ
2	cí-yáà	í-yàá
3	cú-ꜜwééŋ	í-ꜜwééŋ

The clitics of the first demonstrative category apparently also form the roots of the grammaticalized third-person personal pronouns p**ínʌ̀** (singular) and ìhì**nʌ́** (plural), as marked in bold, in which case they have lost their distance-indicating notion (Dimmendaal & Schneider-Blum to appear: 68). Personal pronouns, however, are not the subject of this study.

Apart from their form as independent pronouns, the three demonstrative roots are often attached as enclitics to other nouns or noun-modifying elements, i.e. adjectives, numerals or nominal modifiers. Similar to the abbreviations used for the demonstrative pronouns described above, the three roots will be referred to below as dem1-clitic (-*nʌ/-na*), dem2-clitic (-*nʌ/-na*), and dem3-clitic (-*weeŋ*) when used as bound forms.

The referents marked by demonstrative clitics (as well as by demonstrative pronouns) are not semantically restricted: They are attached to physical as well as non-physical referents, animate as well as inanimate entities and human as well as non-human referents, as shown in (1)-(3). Note that free personal pronouns can only refer to human referents (Dimmendaal & Schneider-Blum (to appear: 2).

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[4] According to Dimmendaal & Schneider-Blum (to appear: 68), the pronominal forms *cííŋ* and *ííŋ* are archaic forms still realized by individual older speakers.

(1)[5] *ʊ-dɔɔ-w-aa*   *ɲ=ɪrba*   *ɘ-dah=ɪɪ*   *iimurik,*
       PAST-stand.up-EP-INS   ERG= Irba   PAST-say=APP   Tima

       mɛ=yɛ   *ɨ-ri-yaa=ʈaŋ*   *ʈ-amaa=na*   *du-murik=i*
       OPT=REP   PAST-change-EP-INS=LOC3   SG-talk=DEM1   MOD-Tima=SEL

       twar=a=ʈaŋ   *a=ʈ-amaa=na*   *dɘ-maadaŋ=ɪ [...].*
       different=from=LOC3   from=SG-talk=DEM1   MOD-Katla=SEL
       "Then Irba told the Tima people, to change the Tima language different from the
       Katla language [...]." (280117_10_Hamid_Clandividing 073-075)

(2)   *u-kumun-aa*   *caak-aa=ʈaŋ=ɪɪ ...*   *ɲ=ɪhɪ=na*   *ɲ=i-kʌk.*
       PAST-find-INS   become-INS=LOC3=APP   ERG=milk=DEM1   INS=PL-bitter
       "[...] and found out that the milk had become bitter (for them)."
       (280117_10_Hamid_Clandividing 047)

(3)   *ku-juur=nʌ*   *i=i-murik=i*   *ɪrba* *dʌ=ŋʌ*   *kʌ-hu.*
       SG-magician=DEM1   DIR=PL-Tima=SEL   Irba   like.this=FOC.SG   SG-name
       "The Tima magician is called Irba." (280117_10_Hamid_Clandividing 042)

In terms of their syntactic function, nominal phrases marked by a demonstrative clitic are also variable: They can perform core functions, such as the role of subject or object, as well as oblique functions. Note that although demonstrative clitics are not attested to be attached to verbal roots in the present corpus, demonstrative-marked nominal phrases can be predicates as in (4), where the focus clitic *=yʌ* attached to the last element of the complex noun phrase serves as a predication marker (Becker & Schneider-Blum 2020: 9f.).

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[5] The following glosses are used in this paper: 1= first person, 2= second person, 3=third person, AP= antipassive, APP= applicative, CAUS= causative, COND= conditional, COP= copula, DEM1= first demonstrative root (*-nʌ/-na*), DEM2= second demonstrative root (*-yaa*), DEM3= third demonstrative root (*-weeŋ*), DIR= directional, EP= epenthetic element, ERG= ergative, EXCL= exclusive, FOC= focus, FUT= future, IMPFV= imperfective, INCL= inclusive, INS= instrumental, LOC= locative, LOG= logophoric, LOW.TR= low transitivity, MOD= modifier, OPT= optative, PAST= past tense, REP= reported, PL= plural, PLUR= pluractional, POSS= possessive, POT= prohibitive, PRF= perfect, SEL= selective, SG= singular, TR= transitive, VENT= ventive

(4)   *a=y-amaa=na   ɨ=k-ʌli=yʌ.*
        from=PL-talk=DEM1   DIR=SG-truth=FOC.SG
        "From the right way of speaking/it is about the true language."
        (07_MusaBukur 001)

In the present corpus, demonstrative clitics are consistently attached to the head noun in complex noun phrases, as in (3), except in the case shown in (5). There, the bare head noun *kɔɔnɔ* ('this thing') is followed by a demonstrative-marked adjective *khadarna* ('green').

(5)   *anɪmɛɛ=ðɛ,   kɔɔnɔ   khadar=na   cɔɔŋ=ɛ.*
        from.where=REP   this.thing   green=DEM1   arrive:VENT=REP
        "From where is it, that this green thing came." (02_AliTia_1 018)

In addition, demonstrative clitics can be attached to both the head noun and the modifying adjective, as in (6). In this case the referents are obligatorily 'present/ visible' (Dimmendaal & Schneider-Blum to appear: 77) from the speaker's point of view.

(6)   Scheider-Blum & Dimmendaal (in prep.: 77)
        ɪhwaa=na   íhíík-ɜ̀=ná   an-tikihiṯʌk   idʌ.
        people=DEM1   two-EP=DEM1   3PRF2-tease:PLUR-AP   bodies
        "These two people have arranged to meet secretly (now they are sitting together)."

The three demonstrative clitics can also be attached to modifying nouns within complex noun phrases, as in (7). Note that in these cases the demonstrative clitics of the head and the modifying noun may be different, which can be explained as follows: The demonstrative clitics of modifying nouns do not specify the referent of the head noun, but rather its host, i.e. the modifying noun.

(7)   *ibʌ=weeŋ   kʌwun   I=i-wʌwuŋ=nʌ   ɨ=pɨnʌ-y=i.*
        children=DEM3   of.course   DIR=PL-grandchild=DEM1   DIR=3sg-EP=SEL
        "They are the children of her grandchildren." (03_AliTia_2 057)

Finally, the three clitics are also attested to attach to personal pronouns. These typically include first and second person independent forms and will be examined further in §2.2.1. However, the two instances in the present corpus shown in (8) and (9) deviate from this tendency: While in (9) a third person independent pronoun is marked by a dem1-clitic, the example in (8) proves that bound pronominal forms that cliticize on the verb can also be marked by demonstrative clitics.

(8)   *kʊ-kwaŋ=na   a-pɘrana-w-aa=ŋaŋ=na.*
        SG-opening=DEM1   2SG-urinate-EP-INS=2SG=DEM1
        "This door with which you are urinating." (11_Hamad_4 022)

(9)   *aaah, ihinʌ=nʌ   ɲ=ɪ-waan   ɪhwaay=ɪ,   i-juur=e.*
        aaah 3PL=DEM1 INS=PL-sibling three=SEL PL-magician=FOC.PL
        "Ah, the three brothers are magicians."
        (280117_10_Hamid_Clandividing   008-009)

A final note should be added at this point. Although all the morphosyntactic contexts presented so far are productive, the three demonstrative roots are also part of several lexicalized temporal or spatial adverbs (Dimmendaal & Schneider-Blum to appear: 78ff.), as *aduweeŋ* in (10). However, these constructions will not be discussed in the present analysis, as this would exceed the scope of this study.

(10)   *aduweeŋ i-di-y-ʌŋ-aa   ɲ=ihinʌ.*
        since   PAST-walk-EP-VENT-INS   ERG=3PL
        "Since (that time) they came here." (09_Hamad_2 001/002)

After describing the structural properties, I will now give an overview of the demonstrative functions in Tima, as identified in two previous studies. These serve as a basis for the more detailed analysis in §2.

1.2.2. Functions according to previous research

The functions of demonstratives in Tima have not been extensively studied. However, Alamin (2012) as well as Dimmendaal & Schneider-Blum (to appear) have proposed basic semantic, pragmatic, and information-structural functions of the different

categories. Since these descriptions form the basis of the present analysis, the contents of both studies is briefly presented in this section.

In her dissertation, Suzan Alamin (2012) provides a brief description of demonstratives in Tima, where she distinguishes two categories: *-nʌ/-na* (dem1) and *-yaa* (dem2). While she characterizes dem1-forms as referring to entities "near the speaker and hearer" (Alamin 2012: 59), dem2-forms are said to refer to entities "far from the speaker and hearer or near the hearer" (Alamin 2012: 59). Thus, Alamin (2012) considers only the exophoric, deictic function of both categories, thereby describing the choice of demonstrative as determined by the physical distance of an origo, which may be the speaker, the addressee, or both, from a referent, resulting in a proximal (dem1) versus distal (dem2) distinction. Since the third demonstrative root (*-weeŋ*) does not serve to point to entities in the speaking situation, it is not considered a demonstrative by Alamin (2012).

Dimmendaal & Schneider-Blum (to appear), in contrast to Alamin (2012), apply a tripartite distinction: They recognize the three demonstratives *-nʌ/-na* (dem1), *-yaa* (dem2) and *-weeŋ* (dem3). In this study, the root *-weeŋ* (dem3) is also considered a demonstrative for the following reason: Although they do not serve to point exophorically to entities, dem3-clitics and pronouns are paradigmatically related (see §1.2.1) to the first two demonstratives, which in turn serve distance-indicating, deictic functions. Therefore, I treat *-weeŋ* (dem3) as a demonstrative, following Himmelmann (1996: 210f.), who notes that "in several languages, there are elements which share highly specific morphosyntactic features with distance-sensitive demonstratives and, for this reason, have to be considered demonstratives, though distance is irrelevant to their semantics." (Himmelmann 1996: 211).

Turning now to the functions of the three demonstratives, Dimmendaal & Schneider-Blum (to appear) describe the following contexts of use: first, their use to mark the distance of referents, which Dimmendaal & Schneider-Blum (to appear) describe in the same way as Alamin (2012): while *-nʌ/-na* (dem1) serves to point to nearby entities, *-yaa* (dem2) marks more distant referents (Dimmendaal & Schneider-Blum to appear: 67f.).

Furthermore, Dimmendaal & Schneider-Blum (to appear) identify functions of all three categories that go beyond the basic marking of physical distance, such as the marking of definiteness. In this regard, Dimmendaal & Schneider-Blum (to appear) note that "the noun that is attached by the demonstrative clitic always refers to a specific, particular referent" (Dimmendaal & Schneider-Blum to appear: 75). However, the factors that

cause the addition of demonstrative clitics to add notions of definiteness remain unknown, since bare, unmarked nouns can likewise refer to specific as well as non-specific entities (Dimmendaal & Schneider-Blum to appear: 74). With regard to the second demonstrative category, Dimmendaal & Schneider-Blum (to appear) identify its function to contrast referents with each other (Dimmendaal & Schneider-Blum to appear: 73). Finally, concerning the third demonstrative category, Dimmendaal & Schneider-Blum (to appear: 67, 78) observe that both clitics and pronouns of this category refer to "previously mentioned" (Dimmendaal & Schneider-Blum to appear: 67) entities. Dimmendaal & Schneider-Blum (to appear) thus characterize the function of dem3-forms as generally anaphoric.

The functions of the three demonstratives in Tima according to the two previous studies (Alamin (2012), Dimmendaal & Schneider-Blum (to appear)) can thus be summarized as in table (4).

Table (4): Functions of the three demonstratives according to Alamin (2012) and Dimmendaal & Schneider-Blum (to appear)

demonstrative category	root	marking of..
1	-nʌ/-na	proximity definiteness
2	-yaa	remoteness contrast
3	-weeŋ	anaphoric coreference

2. Corpus Analysis

In the following sections, the functions of the three demonstratives described above will be traced and further elaborated on the basis of a qualitative corpus analysis. In addition, other functions will be introduced. First, however, the data and method of this corpus analysis will be presented followed by a brief discussion of the often ambiguous distinction between exophoric and endophoric reference, since the present analysis will be structured along this division.

2.1. Data & Method

This corpus analysis is primarily qualitative: On the basis of individual corpus examples, the functions of the three demonstrative roots in Tima are identified and described. In addition, information and elicitations from a mother-tongue speaker of Tima are used to test the formulated hypothesis[6]. Finally, quantitative evidence is occasionally provided to test or emphasize the assumptions made on the basis of the qualitative analysis.

The present corpus consists of twelve monologues by six mother-tongue speakers of Tima, gathered during fieldwork between 2007 and 2019. These monologues are narrative stories, all involving multiple protagonists, and can be grouped into the following types: stories about anthropomorphic animal characters, mythical stories about the origins of the Tima people, stories involving local community members, and a retelling of the Pear story (Chafe 1980). Audio and ELAN (Max Planck Institute for Psycholinguistics 2022) files were available for analysis. The ELAN files contained the following information: transcriptions, glosses, translations, GRAID (Haig & Schnell 2014) annotations,[7] and RefIND (Schiborr et al. 2018) annotations.[8] These files formed the basis of the present qualitative corpus analysis.

To support the results of the qualitative analysis, additional annotations were performed to provide quantitative evidence. Specifically, all words containing one of the three demonstrative roots, i.e., demonstrative pronouns or noun phrases followed by a demonstrative clitic, were automatically extracted[9] and integrated into a spreadsheet containing a total of 169 demonstrative roots[10]. Of these, *-nʌ/-na* (dem1) is the most frequent (90 cases), followed by *-weeŋ* (dem3) (54 cases) and *-yaa* (dem2) (25 cases). Additional information was manually annotated within the spreadsheet. The variables and their variants are shown in table (7) in the annex. Finally, this spreadsheet was

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[6] At this point, I would like to thank Hamid (HKD), a mother-tongue speaker of Tima, whose information and elicitations were extremely valuable for this bachelor's thesis. I would also like to thank Gertrud Schneider-Blum, who provided the linguistic data and metatextual information used in this analysis and shared her evaluation of several issues discussed in this paper with me.

[7] GRAID annotations mainly provide information about the syntactic functions of constituents, the basic semantic profile of referents, and the morphological structures of words.

[8] RefIND annotations index discourse referents. These indexes allow the tracking of referents across narratives.

[9] Lexicalized adverbs including demonstrative roots (see §1.2.1) have been excluded.

[10] Of these, 13 were roots of independent demonstrative pronouns and 156 clitics attached to other hosts.

imported into R-Studio (R-Studio Team 2020), where the R programming language (R Core Team 2023) was used to compute and graph all the distributions shown in the following chapters. Before turning to the results of the corpus analysis, I will briefly explain the variable of endophoric and exophoric reference, as it is central to the present analysis.

2.1.1 Exophoric and endophoric reference

In this analysis, the contexts of demonstrative use are divided according to the domain of their reference, leading to a binary distinction between exophoric and endophoric reference. While the term *exophoric* characterizes the referential domain of an expression as being within the utterance situation, the term *endophoric* determines the domain as being in the text (Finkbeiner 2018: 192). Put differently, in order to distinguish between endophoric and exophoric reference, one must decide whether a speaker is referring to an entity that is physically present in the utterance situation (exophoric) or whether he or she is referring to an entity that is not present in the immediate surroundings but has been mentioned in the preceding discourse (endophoric) (Peeters et al. 2021: 411). This distinction is in fact not clear in many cases of the present sample, but it is nevertheless important for the quantitative distributions calculated below: The inclusion of exophorically used demonstratives would, for example, manipulate the calculation of the average distance of anaphorically used demonstratives to their antecedents. Therefore, I will add a brief overview of exophoric uses that deviate from the prototypical definition given above.

A referent may not be visible or physically present in the utterance situation, but still be classified as exophoric. These contexts include, on the one hand, cases of *Deixis am Phantasma*, a term introduced by Bühler (1934).[11] In these uses, speakers refer to entities that are present in the fictive surroundings of a narrative, thereby taking the point of view of a fictive origo (Finkbeiner 2018: 190). Such cases of quasi-exophoric reference are attested, for example, in Himmelmann's (1996: 222f.) crosslinguistic referential analysis of demonstratives in narrative texts. The noun phrase *this way* in (11) serves as an example of this use.

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[11] The analysis of Bühler (1934) is in the following described by the summary of Finkbeiner (2018: 190).

(11)   Quasi-exophoric reference (Himmelmann 1996: 222)

       And he's heading . . you see a scene where he's . . coming on his bicycle this way.

On the other hand, referential expressions can be considered exophoric when they refer to a non-physical referent (Diessel 1999: 95), such as the demonstrative pronoun in (12).

(12)   Non-physically exophoric reference (Diessel 1999: 95)

       This is a nice felling.

Finally, referential expressions are also considered exophoric when they refer to an entity that is not visible in the present environment but is clearly referred to symbolically (Diessel 1999: 94). The noun phrase *This city* in (13) is an example of such an exophoric reference.

(13)   Symbolically exophoric reference (Diessel 1999: 94)

       This city stinks.

All instances of demonstrative noun phrases that do not exercise the prototypical or any of the exophoric uses described above are classified as endophoric for the purposes of this study.

2.2. Exophoric reference

In the following, we will now discuss the different exophoric uses of *-nʌ/-na* (dem1) and *-yaa* (dem2) in this corpus. Since the third demonstrative root (*-weeŋ*) is not attested to be used exophorically in the current data, it will not be discussed in this section.

2.2.1. Dem1

In this corpus, dem1-clitics are attested to be attached to nominal phrases denoting physical referents close to the actual utterance situation. They are thus used to refer exophorically to proximal entities, a function that has been observed by both Alamin (2012: 59) and Dimmendaal & Schneider-Blum (to appear: 67f.) (see §1.2.2).

A corpus example of this usage is given in (14). Since the demonstrative-marked referent *u=ku-rtu=nʌ* ('this house') has not been mentioned before, it can be assumed that the

speaker in (14) is referring to a house present in the immediate surroundings of the utterance situation.

(14) *kʌ-wuh   kɪ=rɛɛɣ   u=ku-rtu=nʌ   dʌŋ.*
       SG-stone POT=equal DIR=SG-house=DEM1 like
       "A stone like this house." (11_Hamad_4 165/166)

In the present corpus, the prototypical exophoric use of the first demonstrative category described above is often extended to quasi-exophoric reference. In this case, the origo of the reference switches from the speaker to a fictional protagonist (Finkbeiner 2018: 190), as described in §2.1.1. (15) shows an example of this use from the present corpus. In this case, the narrator speaks from the perspective of a mother who has been trying to bear her child for a long time. The child, referred to by the nominal phrase *kɔɔnɔ=yɛ=na* ('this thing'), is marked by a dem1-clitic to emphasize its close physical distance from the mother.

(15) *kɔɔnɔ=yɛ=na,   ɘ-mɘna=yɛɛn   w-uri   yuuh   nʌŋ.*
       this.thing=REP=DEM1 3-take=LOC1SG LOC-force LOC:bone here
       "This thing, it is strongly insisting to stay here in my stomach." (11_Hamad_4 017)

Furthermore, dem1-marked forms are used in the present corpus to point to non-physical referents, a type of exophoric reference described in §2.1.1. For example, speakers often combine the dem1-clitic with the nominal root *amaa* ('talk') to refer quasi-exophorically to the story they are telling: Of the 39 instances of *amaa* ('talk') in the present corpus, more than 41% are attached by *-nʌ/-na* (dem1). Example (16) provides evidence of this use.

(16) *aaah, ṭ-amaa=na   n=ṭ-amaa   dɪ-bɛ̣ṭɛɛr=ɪ.*
       aaah SG-talk=DEM1 INS=SG-talk MOD-myth=SEL
       "Aaah, this talk is like a devil's story." (011007_11_AdlaanMisiria_Myth 013)

Furthermore, the present corpus shows that dem1-marked forms not only refer to third person referents but also attach to first and second person pronominal forms where they mark interlocutors. In (17), for example, *-nʌ/-na* (dem1) is attached to an applicative-marked, first person plural inclusive pronoun. According to a native speaker, the clitic

emphasizes that the speaker refers to the community members present in the immediate surroundings of the utterance situation.[12] A realization of the pronoun without the demonstrative clitic would be possible, but would imply that the first person pronominal form refers to all Tima speakers, i.e. also to those who are not present in the utterance situation.

(17) ɪnɛð=na   a=tintiiliŋ=ʌ,   i-tulu-uŋ=nɛð
      1PL.INCL=DEM1   from=Tintiiling=FOC.SG   PL-leave.together-VENT=1PL.INCL
      "This us from Tintiiling, we came out (i.e. we all came out from Tintiiling)."
      (03_AliTia_2 067)

Similarly, -nʌ/-na (dem1) is attached to the second person plural pronoun ɪnaanna, denoting the linguists who record the narration in (18). Again, the attachment of the dem1 clitic emphasizes the fact that the referents indicated are present in the immediate environment of the speaking situation.[13]

(18) ɪnaan=na   u=kuhunʌŋ=nʌ […].
      2PL=DEM1   DIR=now=DEM1
      "These you of today […]." (07_MusaBukur 012)

The dem1-clitic is also attested to attach to the first person singular pronoun kɨdʌ in the present corpus, as in (19).

(19) kɨdʌ=nʌ […].
      1SG=DEM1
      "Me […]." (03_AliTia_2 023)

This seems surprising, since first person marked referents are undoubtedly present in the utterance situation. It is therefore unclear how dem1-marked first person singular pronouns differ semantically or pragmatically from unmarked first person singular pronouns. However, a native speaker explained that the combination of kɨdʌ and -nʌ/-na

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[12] HKD_20230122_metalinguistic-comment_01

[13] HKD_20230122_metalinguistic-comment_02

(dem1) is generally preferred.[14] This may suggest an ongoing process of grammaticalization of the attachment of *-nʌ/-na* to first and second person pronouns.[15] However, this question remains to be investigated in the future.

2.2.2. Dem2

In the present corpus, the second demonstrative root (*-yaa*) is attested to mark entities far from the origo, as already described by Alamin (2012: 59) and Dimmendaal & Schneider-Blum (to appear: 67f.) (see §1.2.2). An example is given in (20), where the dem2-marked nominal phrase *iihiyaa* ('at that place') refers to a neighboring area from the speaker's point of view.

(20) *k-ʌwuh   ŋkwiyʌ yaanʊŋ i=i-hi=yaa.*
      SG-stone COP   there   DIR=PL-place=DEM2
      "There is a stone there at that place." (11_Hamad_4 163)

Similar to nominal phrases marked with the first demonstrative category, the point of reference can be either the speaker, as in (20), or a fictive protagonist. An example of a fictive origo is given in (21), where a child referred to by the nominal phrase *iicibʌ* ('a child') whistles at another child to return a hat. In this example, the child who lost his hat is marked by the enclitic *-yaa* (dem2). It seems most likely that the speaker is narrating from the point of view of the whistling child and marks the child who lost his hat with the second demonstrative in order to emphasize the physical distance between the two referents.

(21) *pɨnʌ   u-pul-i-y=ii   kɪ-ŋɛ   ii=c-ibʌ=yaa.*
      3SG   PAST-blow-TR-EP=APP SG-mouth   APP=SG-child=DEM2
      "One (of them) whistled for that child." (20190108_HamidPearFilm 022)

In sum, the exophoric reference performed by the second demonstrative category contrasts with the first category, which is used to refer to proximal entities: It points to

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[14] HKD_20230122_metalinguistic-comment_03

[15] Remember that third person pronouns are presumably also derived from *-nʌ/-na* (Dimmendaal & Schneider-Blum (to appear: 68) (see §1.2.1).

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more distant entities. However, the exact physical or perceptual parameters that determine the choice of one or the other exophorically used demonstrative category cannot be further specified in this investigation. Nevertheless, both roots (*nʌ/-na* and *-yaa*) provide evidence for the "situational use, i.e. reference to an entity present in the utterance situation" (Himmelmann 1996: 219) of demonstratives as described by Himmelmann (1996). As shown above, they also confirm Himmelmann's observation that the origo of reference can switch from the speaker to a fictional protagonist (Himmelmann 1996: 222f.).

2.3. Endophoric reference

We will now turn to the endophoric functions of the three demonstrative roots *-nʌ/-na*, *-yaa* and *-weeŋ* in the present corpus. The focus will be on their possible functions to indicate anaphoric coreference.

2.3.1. Dem3

This chapter examines the functions performed by clitics and pronouns of the third demonstrative category, the only one of the three demonstratives that is not used to indicate the physical distance of entities. Specifically, on the basis of corpus examples, three specific contexts are proposed that lead to the realization of *-weeŋ* in the narratives studied.

2.3.1.1. Referring to long distant antecedents

In the present corpus, the dem3-clitic often attaches to anaphoric elements that have long distant antecedents: In the present corpus, the textual distance of the 48 anaphoric elements attached by *-weeŋ* to their antecedents averages 11.52 clauses. An example of a long-distance anaphora marked by *-weeŋ* is given in (22), where the nominal phrase *ɪhaamweeŋ* ('that honey') takes up a referent that was last mentioned 36 clauses ago.

(22) *ɪ-cɪ   ṭuh-uŋ   ɪ-haam. […]*
      PAST- go   pull-VENT   PL-honey

      ɪ-cɪ   hʊndɔnɔ-w-aa   ɪ-haam=weeŋ
      PAST-go   sit-EP-INS   PL-honey=DEM3

ɨ-kʌl-uk=a=ṭaŋ ɲ=ihinʌ.
PAST-chew-CAUS=from=LOC3   ERG= 3pl
"They went to get honey. [...] They went to sit down with that honey and they ate it." (08_Hamad_1 010, 048)

Note that in this example *ɪhaamweeŋ* ('that honey') has no competing referents, i.e. there are no other referents of the same semantic category (honey) introduced into the discourse universe. Therefore, it can be excluded that the dem3-clitic in this case serves to help the listener to choose between several possible referents denoted by the nominal phrase *ɪhaamweeŋ* ('honey'). Rather, it seems to remind the addressee that the denoted entity is known to the hearer, as it was mentioned in the previous discourse. In other words, the speaker seems to have added the dem3-clitic in order to make sure that the listener connects the anaphora with its antecedent and thus does not consider *ɪhaamweeŋ* ('the honey') as a newly introduced and different referent. In this way, *-weeŋ* performs an essential function in creating coherence in the narratives under study: It indicates the coreferentiality of two nominal elements separated by a long anaphoric distance.

2.3.1.2. Marking referents known by personal knowledge

Another function of the third demonstrative category can be described as follows: the reference to entities that both interlocutors know through personal knowledge. In this case, speakers use a dem3-marked form to signal that the denoted referent is known to the addressee through experiences outside the scope of the discourse. Such dem3-marked forms thus do not refer to textual antecedents. Although it is difficult to assess on the basis of the transcriptions whether dem3-marked referents were known to both interlocutors through personal knowledge, the corpus example (23) seems to provide evidence for this use.

(23)   *ɪ-cɪ   i=i-hi=yaa   ɘ=karkaman   yaanʋŋ*
       PAST-go   DIR=PL-place=DEM2   DIR=Karkaman   there
       ku-weeŋ   ɪ-yɔɔ-w-aa   pampaŋ   mɪhɪ.
       SG-DEM3   PL-dance-EP-INS   drum   ancient
       "He went to the places of the Karkaman there that where we danced the drum dance in former times." (11_Hamad_4 142)

In this passage, the entity *Iihiyaa ɘkarkaman* ('the places of the Karkaman') is referred to twice: First, the noun phrase[16] *Iihiyaa ɘkarkaman* ('the places of the Karkaman') introduces this particular location into the discourse. Second, the locative referent is directly taken up by the dem3-pronoun *kuweeŋ* ('that were') which in turn introduces the relative clause *ku-weeŋ ɪyɔɔwaa pampaŋ mɪhɪ* ('that where we danced the drum dance in former times.'). The pronoun of the third demonstrative category thus leads the addressee to identify this particular place on the basis of a shared knowledge of an ancient tradition that took place at this location, i.e. a former dance.

However, as mentioned above, the available transcriptions do not allow to determine whether a referent marked with -*weeŋ* was actually known by both interlocutors. Therefore, further evidence based on an elicitation seems necessary at this point. A look at the elicitation example shown in (24) confirms the observations made above: According to a native speaker of Tima, one attaches the dem3-clitic to the nominal phrase *ikihiweeŋ ʊkwalɘŋ* ('to the mountain place') to signal that the mountain referred to is known by both interlocutors.[17]

(24)   *i=kihi=weeŋ*   *ʊ=k-walɘŋ*
       DIR=place=DEM3   DIR=SG-mountain
       lɛɛy=ɪ   *ɪ-hɪɪ=nɛɛy=ɪ*
       1PL.POSS.INCL=SEL   PL-know=1PL.INCL=SEL
       "to the mountain place which we (incl.) know" (HKD_20230129_elicitation_01)

This use of the third demonstrative category, i.e., the identification of a referent on the basis of personal knowledge, resembles the "recognitional use" (Himmelmann 1996: 230) of demonstratives, a function identified by Himmelmann (1996: 230-240). In his crosslinguistic study of the functions of demonstratives in narratives, Himmelmann (1996) states that demonstratives in several languages fulfill this function as they draw on "knowledge that is assumed to be shared by the communicating parties due to a common interactional history or to supposedly shared experiences" (Himmelmann 1996: 233) in order to enable the identification of the referent by the addressee.

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[16] The dem2-clitic is being attached to highlight the physical distance of the place referred to in relation to the speaker. It thus refers exophorically.

[17] HKD_20230129_metalinguistic-comment_01

Up to this point, the referents taken up by a form marked by the third demonstrative category have been described as referring either to a textually distant antecedent (see §2.3.1.1) or to an entity known outside the discourse frame (see above). In the following subsection, however, it will be shown that dem3-marked nominal phrases can also have close textual antecedents while serving a different function.

2.3.1.3. Resolving ambiguous references

In the present corpus, several anaphoric elements marked with -*weeŋ* refer to textually close antecedents.[18] At first sight, this seems to contradict the tendency of -*weeŋ*, described in §2.3.1.1, to indicate that the referents denoted have textually far antecedents that require a particular marking in order to be linked to their distant anaphoras. However, as I will show below, the two uses of different anaphoric distances fulfill independent functions, and thus do not contradict each other: while dem3-clitics attached to long distant anaphoras serve to emphasize the long time span between antecedent and anaphora, dem3-marked forms take up recently mentioned referents in order to resolve cases of ambiguous reference. Specifically, I argue that -*weeŋ* in cases where a noun phrase can potentially denote several referents is used to signal that the less expected, or in other words, less accessible of several referents is being designated. Before providing evidence for this usage from the corpus, I will briefly present Ariel's (1990) study that established the notion of *accessibility* since this gradual parameter allows us to understand how -*weeŋ* resolves ambiguous references.

In her study, Ariel (1990) examines the anaphoric forms used in Hebrew and English texts, focusing on the former. Essentially, she identifies four factors that influence the accessibility of discourse referents: Distance, saliency, unity and number of competing referents (Ariel 1990: 28f.). While the parameter *distance* distinguishes whether antecedents of anaphoras are located within the same clause, in the previous clause, in the same paragraph or in another paragraph (Ariel 1990: 18f.), the *saliency* criterion evaluates whether a referent assumes the function of a main character in the discourse or not (Ariel 1990: 24f.). Furthermore, the parameter *unity* specifies the relation between the clauses of anaphora and antecedents, i.e. whether they are contained in a single narrative frame or not (Ariel 1990: 26f.). Finally, the factor *number of competing referents* indicates the number of discourse entities that can potentially be designated by

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[18] Here, I consider close antecedents to be referents mentioned at most two clauses before.

a given referential form (Ariel 1990: 28). On the basis of these four parameters, Ariel (1990) gradually distinguishes between referents of low and high accessibility: the shorter the distance to its antecedent, the more salient a referent is, the closer the structural connection between anaphora and antecedent, and the smaller the number of competing referents, the more accessible a discourse referent is (Ariel 1990: 18-30).

Let us now look at an examples from the present corpus that demonstrates how -*weeŋ* resolves cases of ambiguous reference.

(25)   *ʋ-kʋt-ɪ*   *ɲ=ihinʌ, pɨnʌ* *ʋ-pul-i-y=ii*   *kɪ-ŋɛ*

PAST-take-TR ERG=3PL 3SG   PAST-blow-TR-EP=APP SG-mouth

ii=c-ibʌ=yaa   *mak pɨnʌ ʋ-dʋ-ʋl.*

APP=SG-child=DEM2 then 3SG PAST-stop-MID

u-hweel=ii   *mak pɨnʌ ʋ-dʋ-ʋl.*

PAST-whistle=APP then 3SG PAST-stop-MID

kɨcimbʌri=weeŋ   *ɞ-daa-w-aa=ʈaŋ=ɪɪ*   *tuŋkwiyʌʌk ɪɪ=waʈɪŋ.*

child=DEM3   PAST-run-EP-INS=LOC3=APP hat   APP=owner

"They took it and one (of them) (child2) whistled for that child (child1), and then he (child1) stopped. He (child2) whistled for him (child1) and he (child1) stopped. That child (child2) ran with the hat to its owner (child1)."

(20190108_HamidPearFilm 022-024)

In (25) two children act as agents of the described string of actions: While one child, labeled child1, lost his hat unnoticed, the other child, labeled child2, found it together with other children. To return the hat, child2 whistles for child1, who has already left. At the end, child1 hears the whistle and stops. Let us now take a look at the nominal phrase *kɨcimbʌriweeŋ* ('that child'). This noun phrase can grammatically refer to both protagonists, child1 and child2. However, the third demonstrative root in this case signals which of the two referents is being referred to: It marks coreference with child2, i.e. the less accessible of the two protagonists. The fact that child2 is less accessible than child1 can be seen in table (5), where not only Ariel's (1990) accessibility criteria are applied to the two children representing potential referents of the noun phrase

kɨcimbʌriweeŋ ('that child') but also a fifth parameter: Whether or not the referent functions as the subject of the preceding clause.[19]

Table (5): Accessibility criteria applied to the protagonists in (25)[20]

	Distance (in words)	Saliency	Unity	Number of competing referents	Subject of the preceding clause?
Child1	2	main character	same sequence	1	yes
Child2	5	side character	same sequence	1	no

The contents of table (5) can be summarized as follows: First, the textual distance of the noun phrase *kɨcimbʌriweeŋ* ('that child') to child1 is smaller than to child2. Second, child1 performs the role of the subject in the previous clause. Third, while child2 has just been introduced into the discourse in the passage shown and does not play a role in the following action, child1 is the main character throughout the narrative. On the basis of these three parameters, i.e. textual distance, saliency and subject status in the preceding clause, the referent denoted by the noun phrase *kɨcimbʌriweeŋ* ('that child'), i.e. child2, which is attached by -*weeŋ*, can be said to be the less accessible of two competing referents.

To conclude this section, it should be noted that the function of -*weeŋ* presented above, i.e. resolving cases of ambiguous reference, provides evidence for one of the potentially universal uses of demonstratives identified by Himmelmann (1996): the "tracking use" (Himmelmann 1996: 226). Demonstratives performing this function help the listener to "keep track of what is happening to whom" (Himmelmann 1996: 226). As shown above, this is exactly the function that -*weeŋ* performs when attached to anaphoric elements with textually close antecedents.

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[19] Evidence that the switch of subject may influence referential forms is provided by German: As Diessel (1999) shows, demonstrative pronouns in German, which from a grammatical point of view can potentially denote several referents of a preceding sentence, denote the discourse entity that did not function as the previous subject, but, for example, as a verbal object (Diessel 1999: 96).

[20] The parameters *distance* and *unity* indicate the relation between the dem3-marked noun phrase *kɨcimbʌriweeŋ* ('that child') and the two most recently realized noun phrases denoting child1 and child2. Furthermore, I counted the distance between the anaphora and its antecedent in words in this case to better account for more detailed differences.

2.3.1.4. Pragmatic profile

Three functions of the third demonstrative root have been presented so far: the reference to long distant antecedents (see §2.3.1.1), the identification of referents on the basis of personal knowledge (see §2.3.1.2) and the resolution of ambiguous references (see §2.3.1.3). Comparing these three, a common pragmatic implication can be observed: Although the referents are known to the addressee, their identification is marked as difficult or, in other words, as requiring mental effort. This generalization is supported by a common formal property: In the present corpus, dem3-marked forms are often accompanied by further semantic modifications or, conversely, perform a modifying function themselves. This tendency can be related to the proposed common pragmatic profile as follows: Since dem3-marked forms qualify referents as being difficult to identify, further descriptions are provided to facilitate their identification. This link has already been described by Himmelman (1996), who observes the tendency of demonstratives performing the recognitional use to "incorporate anchoring or descriptive information [...] to make the intended referent more accessible" (Himmelman 1996: 230). In the following, I will briefly present corpus examples of different types of semantic modifications in combination with dem3-marked forms and describe their high frequency.

2.3.1.4.1. Denoting referents that require further descriptions

Dem3-marked nominal phrases often function as appositions or dislocated topics: In the present corpus, noun phrases or pronouns containing *-weeŋ* are used as appositions 20% of the cases and as dislocated topics 13% of the cases. Nouns or pronouns containing the other two demonstrative roots, on the other hand, appear much less frequently as appositions or dislocated topics, as can be seen in figure (1). (26) shows one of the corpus examples of an appositional noun phrase marked by a dem3-clitic.

(26)   *i-ʈibi-y-aa=ʈaŋ*   *yala*   *ʊ-wʊt-ɪ*   *mɨnʌ*
       PAST-fill-EP-INS=LOC3   come.on   PAST-take-TR   3SG.ERG

       ŋ=kʊ-lala=weeŋ   *y-amʊh=ɛ=yɛ.*
       ERG=SG-follower=DEM3   PL-flour=FOC.PL=REP

       "She filled it and then (Ar.) the other one took (it) as if (it were) flour."

       (031007_Daldum_ClanDividing 015)
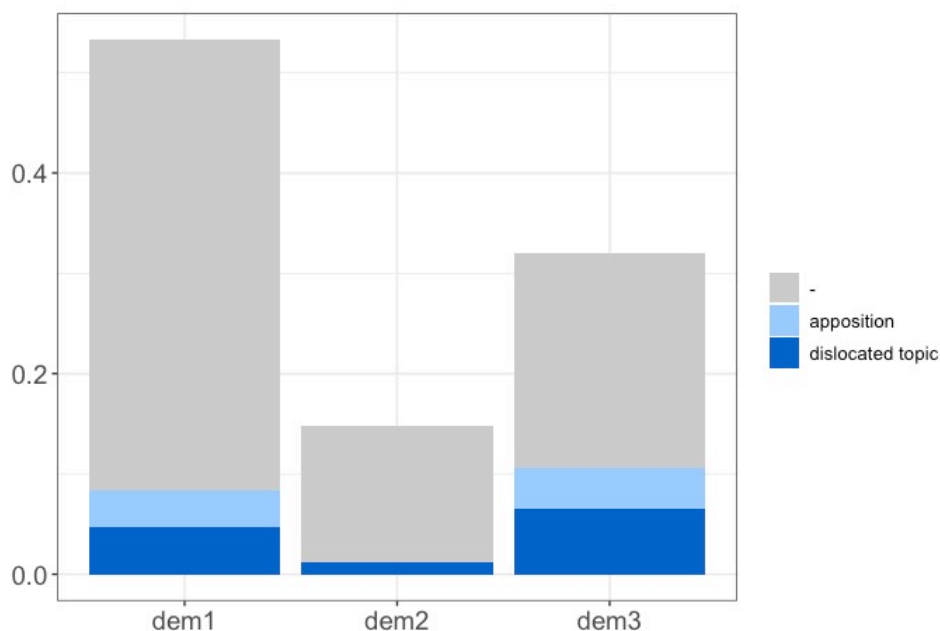
Figure (1): Relative frequencies of the three demonstrative
roots within appositions or dislocated topics

Conversely, in 7.4% of the cases dem3-marked forms are themselves semantically specified by relative clauses. By providing further descriptions, speakers seem to anticipate the addressee's problems in associating dem3-marked nominal phrases with the intended referents. This supports the claim made above that dem3-forms mark entities as requiring effort to identify. See (27) as an example from the present corpus.

(27)   *aduweeŋ=mak=ɪ ɪhwaa ʊ-dʊwəl   nʌŋ.*
       since=then=SEL   people PAST- stop   here
       aaah, ɪhwaa=weeŋ   mak   ɪ-cakal-ak.
       aaah   people=DEM3   then   PAST-quarrel-CAUS
       "From that time the people stopped here. Aah, those people who were fighting."
       (011007_14_AdlaanMisiria_Horsequarrel 053-055)

Finally, dem3-pronouns often introduce relative clauses that help the addressee to identify an unexpected referent:[21] Three of the four dem3-pronouns in the present

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[21] Note that relative clauses in Tima are not morphologically marked as such: they are not formally different from independent clauses, i.e. head nouns or relative clauses are not attached by specific morphemes and no relative pronouns are attested. Thus, it is debatable whether Tima has any constructions that qualify as relative clauses at all. For the purpose of the present analysis, however, clauses that serve to semantically modify a head noun are considered relative clauses.

corpus function as arguments within a relative clause. (28) shows one of the examples from the corpus.

(28) *ibʌrimbʌri=weeŋ i-diik,   i-weeŋ   ʊ-kʊnɛ=ʈaŋ=ıı   kɘʈayııl.*
children=DEM3   PAST-walk.away   PL-DEM3   PAST-ban=LOC3=APP   collecting
"Those children went (away), those (who had) helped him collecting."
(20190108_HamidPearFilm 020)

2.3.2. Dem1

We will now turn to the endophoric functions of the first demonstrative root *-nʌ/-na*, which marks proximity on an exophoric level (see §2.2.1). First, two functions will be described that relate to the ability of dem1-forms to indicate anaphoric coreference. Then, the function of dem1-clitics to mark definiteness will be discussed.

Difficulties for the following analyses arise from the fact that the contexts of use of dem1-marked forms are not complementary and thus occasionally overlap. However, since the focus of the present analysis is not on the quantitative distribution of these functions, individual examples will suffice to provide evidence for each function.

2.3.2.1. Referring to short distant antecedents

In the present corpus, 12 anaphoric elements are marked with *-nʌ/-na* and can be characterized as follows: They refer to antecedents that are newly introduced in half of the cases[22] and textually close: The average distance from dem1-marked anaphoric elements to their antecedents is 0.83 clauses. An example is given in (29), where the nominal phrase *ıwɔrkwɔlɔŋ liini* ('our men') introduces a new group of referents and is then directly taken up by the dem1-pronoun *inʌ* ('these') in the following intonation unit. The demonstrative pronoun itself functions as a dislocated topic and is coreferential with the direct object of the clause, i.e. *ılwayɛn liini* ('our forefathers').

(29) *ıwɔrkwɔlɔŋ liin=i   wɔdɔŋ=ı,   i-nʌ*
men   1PL.POSS.EXCL=SEL   long.time.ago=SEL   PL-DEM1

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[22] The antecedents of anaphoric elements marked with *-weeŋ* (dem3), on the other hand, are newly introduced in only 23% of the cases.

i-di-y-ʌŋ   kumun=ʈaŋ=nin=i   ɪl-wayɛn   liin=i
PL-walk-EP-VENT find=LOC3P=1PL.EXCL=SEL   PL-father   1PL.POSS.EXCL=SEL
mɪhɪ.
ancient
"Our men, a long time ago these (obj.) we came to find our forefathers a long time
ago." (011007_11_AdlaanMisiria_Myth 007/008)

Used anaphorically, dem1-forms thus contrast with dem3-clitics and pronouns: While
nominal elements marked by the third demonstrative category refer to textually distant
antecedents (see §2.3.1.1), dem1-forms indicate shorter anaphoric distance. This
hypothesis is supported by quantitative evidence: The average distances of dem1-
marked forms to their antecedents (0.83 clauses) are on average much smaller than
those of dem3-marked forms (11.52 clauses).

The contrasting profiles of the first and third demonstrative categories are also reflected
in their functions to resolve ambiguous references. This is demonstrated by example
(30), which was discussed in slightly modified form in §2.3.1.3: In example (25) above
the noun phrase *kɨcimbʌri* ('child') was being attached by the dem1-clitic while in (30) it
is followed by the dem3-clitic.

(30)   *ʋ-kʋt-ɪ   ɲ=ihinʌ,   pɨnʌ u-pul-i-y=ii   kɪ-ŋɛ*
       PAST-take-TR   ERG=3PL   3SG   PAST-blow-TR-EP=APP   SG-mouth
       ii=c-ibʌ=yaa,   mak pɨnʌ   ʋ-dʋ-ʋl.
       APP=SG-child=DEM2   then   3SG   PAST-stop-MID
       u-hweel=ii   mak pɨnʌ   ʋ-dʋ-ʋl.
       PAST-whistle=APP   then   3SG   PAST-stop-MID
       kɨcimbʌri=nʌ   �-daa-w-aa=ʈaŋ=ɪɪ   tuŋkwiyʌʌk   ɪɪ=waʈɪŋ.
       child=DEM1   PAST-run-EP-INS=LOC3=APP   hat   APP=owner
       "They took it and one (of them) (child2) whistled for that child (child1), and then
       he (child1) stopped. He (child2) whistled for him (child1) and he (child1)
       stopped. This child (child1) ran with the hat to its owner (child1)."
       (HKD_20230122_elicitation_02)

In this elicitation, the nominal phrase *kɨcimbʌrinʌ* ('this child') could grammatically refer
to two different referents, i.e. child1 and child2, which have different degrees of
accessibility (see §2.3.1.3). By adding *-nʌ/-na* in (30), the noun phrase *kɨcimbʌrinʌ* ('this

child') refers to child1, i.e. the more accessible antecedent, as can be seen in table (5) (see §2.3.1.3). Note that the attachment of *-weeŋ*, on the other hand, signals the reference to child2 (see §2.3.1.3). (25) and (30) thus form a minimal pair, which leads to the assumption that *-nʌ/-na* and *-weeŋ* evoke complementary anaphoric resolutions in cases of ambiguous reference: *-Nʌ/-na* signals coreference to the more accessible entity and *-weeŋ* to the less accessible entity.

2.3.2.2 Creating complex anaphoras

In addition to their ability to refer to textually close antecedents, dem1-clitics are used to create complex anaphoras. The term *complex anaphora* is used here as described by Schwarz-Friesel & Consten (2014): Complex anaphoras summarize and merge previously mentioned events, actions or states thereby creating new abstract discourse referents (Schwarz-Friesel & Consten 2014: 123-126). The antecedents of complex anaphoras are thus most often multiple sentences. An example from the present corpus is given in (31).

(31) *adıyaa   u-kumun-aa   ɲ=ihinʌ,   ŋʊɲaŋ=na   kɛ=yɛ   dı-yaak=ı, [...].*
      after.that PAST-find-INS ERG=3PL work=DEM1 POT=REP FUT-become=SEL
      "After they found out that this matter is not becoming good, [...]."
      (280117_10_Hamid_Clandividing 059)

The dem1-marked nominal phrase *ŋʊɲaŋna* ('this matter') in this example summarizes the following series of actions: After stealing cows from its neighbors, the Katla discover that their newly acquired cows produce bitter milk and have bitter meat. By realizing the dem1-marked nominal phrase, the speaker creates a new abstract discourse referents which allows him to add the further predication *kɛyɛ dıyaakı* ('is not becoming good').
Moreover, in the present corpus dem1-clitics serve to merge several physical referents into a single discourse entity. This type of indirect anaphora is commonly referred to as plural anaphora (Schwarz-Friesel & Consten 2014: 122f.). Example (32) provides evidence from the present corpus: After introducing several referents (a cow, a goat, a person), the speaker merges the captured goods into a single referent *ŋkɔtɔlna* ('the loot') using a nominal phrase attached by the dem1-clitic.

26

(32)   *í-cí*   *kumun-aa*   *aaah,*   *ʋ=kw-ana=lɪ*   *kumun,*

      PAST-go   find-INS   aaah   COND=SG-cow=FOC.SG   find

      ɪ=cɪ-mɪɪ=lɪ   *kumun,*   *ɨ=kɨ-bʌ̪tʌŋ=li*   *kumun..*

      COND=SG-goat=FOC.SG   find   COND=SG-somebody=FOC.SG   find

      aaah,   *bass*   *ɨ-dɨŋʌ-ʌŋ*   *ɲ=ihinʌ*

      aaah   only   PAST-bring-VENT   ERG=3pl

      aaah,   *n-cɛ=yɛ*   *i=ihinʌ*   *ŋ=k-ɔtɔl=na*   *ʋ=wɔdɔŋ=ɪ*

      aaah   P-IMPFV=REP   APP=3PL   INS=SG-loot=DEM1   DIR=long.time.ago

      "If they found aaah, they found a cow, if they found a goat, if they found

      somebody.. aah, everything they brought it home. Aah, this is the loot for them in

      former times" (011007_11_AdlaanMisiria_Myth 042-046)

In summary, this subsection shows that the first demonstrative root *-nʌ/-na* provide evidence for the *discourse deictic* use of demonstratives, which is one of the potentially universal functions proposed by Himmelmann (1996): They indicate "reference to propositions or events" (Himmelmann 1996: 224) and thus establish new discourse referents (Himmelmann 1996: 224).

We will now examine the first demonstrative root from a different perspective by addressing the question of whether dem1-clitics serve to mark definiteness in Tima.

2.3.2.3. Selecting unique referents

The question of which exact semantic or pragmatic factors are responsible for the realization of definiteness markers across languages remains rather controversial. I will therefore present two approaches to definiteness, based on the summary of Schwarz (2019) before turning to the possible marking of definiteness by the first demonstrative root in Tima.

On the one hand, several linguists have claimed that the realization of definite articles is triggered by uniqueness (Schwarz 2019: 3). According to this hypothesis, markers of definiteness are used when speakers refer to specific entities, i.e. in cases where only one possible referent is designated by a linguistic form (Schwarz 2019: 3f.). On the other hand, several studies have identified the familiarity of referents as necessarily provoking the addition of definite articles (Schwarz 2019: 4). Referents are classified as familiar if they were either mentioned in the preceding discourse or are present in the immediate surroundings of the utterance situation (Schwarz 2019: 4f.). Recent approaches tend to

acknowledge both the familiarity and the uniqueness theories and relate them to cross-linguistic variation: While in some languages uniqueness triggers the realization of definite articles, which are then commonly referred to as weak definites, in other languages the familiarity criterion triggers the marking of definiteness, in which case definite articles are referred to as strong definites (Schwarz 2019: 5). However, many language systems, such as Tima, do not have definite articles. This raises the following questions: Do such languages not distinguish linguistically between definite and indefinite referents, either by the criterion of familiarity or by the criterion of uniqueness? Or do other devices, such as demonstratives, serve instead as markers of weak or strong definiteness?

A detailed study of the expression of definiteness in Tima is beyond the scope and possibilities of the present corpus analysis. However, since the notion of definiteness seems to be one of the core functions of the first demonstrative category, the following subsection will briefly deal with the linguistic marking of definiteness in Tima. Specifically, on the basis of three examples, I will propose a specific context related to the marking of definiteness that leads to the realization of the dem1-clitic and can serve as a basis for future studies on the marking of definiteness in Tima.

Nominal elements accompanied by a dem1-clitic always refer to specific or, in other words, unique entities. This was noted by Dimmendaal & Schneider-Blum (to appear: 75) and is supported by the present corpus. However, as Dimmendaal & Schneider-Blum (to appear: 74f.) also observed, unique referents are not necessarily marked by a demonstrative clitic, but are predominantly expressed by bare noun phrases. In (33) from the present corpus, for example, the speaker introduces a new protagonist ('a young man') and takes up this specific referent in the immediately following clause with a bare, unmarked noun phrase *wʌrʈ̪ikʌrʌŋ* ('the young man').

(33)   *ɘ-lal-a*   *ŋ=wʌrʈ̪ikʌrʌŋ. wʌrʈ̪ikʌrʌŋ   ce=kuli-ið=ii*
       PAST-follow-LOW.TR   ERG=man   man   IMPFV=fear-TR-EP=APP
       "A young man followed her. The young man is afraid of her [...]."
       (03_AliTia_2 014/015)

The uniqueness of referents thus does not necessarily cause the attachment of dem1-clitics. The first demonstrative category, hence, does not consistently mark weak definiteness. Furthermore, example (33) proves that neither the familiarity of referents necessarily triggers the attachment of a demonstrative clitic: Although the denoted

referent is familiar because it was mentioned in the preceding clause, the discourse referent is linguistically realized by the bare noun phrase wʌrʈɨkʌrʌŋ ('the young man'). Strong definiteness is thus not necessarily marked by demonstrative forms in Tima either. In sum, neither familiarity nor uniqueness of referents can account for the use of dem1-clitics in order to express definiteness in Tima.

Rather, the present corpus suggests that another function provokes the attachment of dem1-clitics: the selection of referents from a larger group of entities. Example (34) provides evidence for this usage.

(34) *ihinʌ=nʌ   ɲ=ɪ-waan   ɪhwaay=ɪ,   i-juur=e*;
      3PL=DEM1 INS=PL-sibling three=SEL PL-magician=FOC.PL

      ɘ-dah-ɪy=ɪɪ   ŋ=ku-juur=nʌ   u=ku-murik=i,
      PAST-say-TR=APP   ERG=SG-magician=DEM1   DIR=SG-Tima=SEL

      ayɪn   ki-hi=nʌ   i=tintiiliŋ=i=yʌ=ye,   ɲ-cɪ
      toward SG-place=DEM1 DIR=Tintiiling=SEL=*=REP PL-go

      ŋ-kʌʈukwʌ-k-iŋ=ŋuŋ [...].   ku-juur=nʌ   ɪ=ɪ-maadaŋ=ɪ [...].
      PL-hunt-AP-VENT=3SG.LOG   SG-magician=DEM1   DIR=PL-Katla=SEL

      ku-juur=nʌ   ɪ=ɪ-dɘŋa=yɪ [...].
      SG-magician=DEM1   DIR=PL-Julut=SEL

      "The three brothers are magicians; the Tima magician said (to them), towards the place of Tintiiling they shall go to hunt [...]. The magician of the Katla (said) [...]. The magician of the Julut (said) [...]." (280117_10_Hamid_Clandividing 008-018)

In example (34), after introducing three magicians in the first clause, the speaker successively describes each magician's suggestion for where to go hunting. In order to select individual magicians, the speaker realizes noun phrases attached by the dem1-clitic followed by modifying noun phrases. The latter specify the tribe to which the designated magicians belong: either the Tima, the Katla, or the Julut. Since the three magicians are not mentioned individually in the preceding discourse, it can be excluded that the dem1-clitics are used to indicate anaphoric reference to preceding nominal elements. Rather, I suggest that the dem1-clitics in each case serve to emphasize the specific selection of one of the three magicians. Note that in the narrative of which passage (34) is a part, the magicians are realized a total of eight times as full noun phrases. All of them are marked by demonstrative clitics: seven by *-nʌ/-na* (dem1) and

one by *-weeŋ* (dem3). Consequently, the protagonists discussed in (34) seem to require marking by a demonstrative clitic, whose category, however, is variable.

It should be noted, though, that all noun phrases referring to the magicians in (34) are also marked by another morpheme: the selective marker *=ɪ/=i* (SEL), which is examined in detail in the study of Becker & Schneider-Blum (2020). The placement of this morpheme differs from that of the dem1-clitic: it is attached to the modifying element within a complex noun phrase (Becker & Schneider-Blum 2020: 18), e.g. to the modifying noun *ukumuriki* ('of the Tima') in example (34). As described by Becker & Schneider-Blum (2020), this marker serves to ‚draw attention to the selected alternative (the referent of the modified head noun) out of other possible alternatives' (Becker & Schneider-Blum 2020: 22), thus fulfilling precisely the function claimed above for the dem1-clitic. That the two clitics, i.e. dem1 and SEL, do indeed perform similar functions is supported by quantitative evidence: Dem1-marked noun phrases are additionally marked by the selective marker in 53% of the cases. Noun phrases attached by the other two demonstrative roots are much less frequently combined with the selective marker, as can be seen in figure (2).
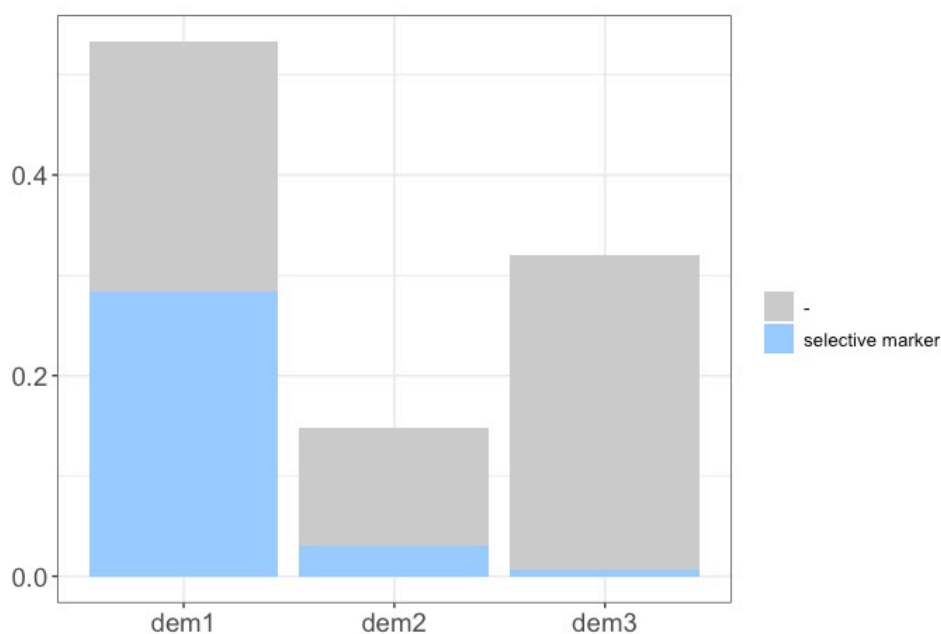

Figure (2): Relative frequencies of the selective marker attached to demonstrative-marked noun phrases

This raises the following questions: Why do Tima speakers use two morphologically distinct markers to single out referents from larger groups? Do selective and demonstrative markers actually serve different functions in these cases? The present

analysis cannot answer these questions satisfactorily. In order to determine which role the two clitics play in singling out referents from larger groups, future studies should provide more detailed accounts of noun phrases marked by the SEL-marker without the attachment of the dem1-clitic and vice versa. However, a minimal pair will be examined below to show that the dem1-clitic does indeed serve to refer to one particular of several possible referents independent of the SEL-marker.

(35) shows a passage from one of the examined narratives in which the speaker asks the following questions from the perspective of a protagonist: *kurtu laaŋıyɛ?* ('where is you house?'). In this example, the house is referred to by a bare noun phrase, accompanied by a possessive 2SG-pronoun and attached by the SEL-clitic. The sentence in (36), on the other hand, was elicited. In this elicitation, in contrast to (35), the dem1-clitic is added to the noun phrase *kurtu* ('house').

(35)   *k-urtu*   *laaŋ=ı=yɛ?*
          SG-house   2SG.POSS=SEL=REP
          "(Where is) your house?" (11_Hamad_4 134)

(36)   *nımɛ*   *k-urtu=nʌ*   *laaŋ=ı=yɛ ?*
          where   SG-house=DEM1   2SG.POSS=SEL=REP
          "Where is your house" (HKD_20230129_elicitation_01)

Although both clauses are translated similarly, (35) and (36) convey different implications as explained by a mother-tongue speaker of Tima: Whereas in (35) from the present corpus there is only one house that could be referred to, the dem1-marked nominal phrase *kurtunʌ* ('house') in (36) implies that the house referred to is the only one that can be indicated.[23] Put differently, while in (36) the entity ('house') is selected from several possible referents, the unmarked nominal phrase in (35) implies that the denoted entity has no competing referents. Note that in both cases the selective marker is attached clause-finally. The close-minimal pair (35) and (36) thus provides evidence for the hypothesis put forward above: Dem1-clitics are attached to single out particular referents from among several possible entities. However, as noted above, the interaction between dem1-clitics and SEL-markers requires further investigation in the future.

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[23] HKD_20230129_metalinguistic-comment_02

2.3.3. Dem2

After describing the endophoric uses of the first and third demonstrative categories, this section will briefly discuss the endophoric uses of *-yaa* (dem2). The first part of this section will discuss the possibility of dem2-forms to signal anaphoric coreference, while the second and final part will focus on the contrasting function of dem2-forms, a use that has been roughly described by Dimmendaal & Schneider-Blum (to appear) (see §1.2.2).

2.3.3.1. Referring anaphorically

Based on the present corpus it remains unclear whether the second demonstrative root is used to indicate anaphoric coreference. In several instances of the present corpus it cannot be clarified beyond doubt whether a referent is marked by a dem2-form in order to indicate the physical distance of the denoted entity from an origo, thus referring on an exophoric level, or whether the attachment of a dem2-clitic serves to successfully link the referent to an antecedent. An example of this kind is given in (37).

(37) [...] *ɘ-pɘr-ɪ=ʈaŋ*   *ɪ-hɪŋkɪð [...]*   *hʌhʌmuŋ mak ɘpɘlɪʈaŋ cɪ-ŋɪ,*
       PAST-take-TR=LOC3 PL-spear   in.law   then *   SG-fire
       ɪ-hɪŋkɪð=yaa   ɪ=y-ɪ-ŋɪ.
       PL-spear=DEM2   DIR=EP-PL-fire
       "[...] and took some spears there [...] then the son in-law blew (i.e. started) a fire, and (put) those spears into the fire." (03_AliTia_2 039-042)

In (37) the group of referents denoted by the nominal phrase *ɪhɪŋkɪð* ('some spears') is taken up three clauses later by a nominal phrase marked by the dem2-clitic *ɪhɪŋkɪðyaa* ('those spears'). On the one hand, one can interpret that the speaker attached the dem2-clitic in order to indicate that he is referring to a group of entities already introduced in the previous discourse. The dem2-clitic would thus mark the connection of the anaphora with its antecedent. On the other hand, the dem2-clitic can be interpreted as emphasizing the physical distance of the denoted entities (the spears) from one of the protagonists (the son-in-law) before he throws them into the fire. The fact that the spears are located somewhere far away is described in the first clause of example (37) ('and (the mother) took some spears **there**'). The addition of the dem2-clitic in this case would thus represent a case of quasi-exophoric reference as described in §2.2.2. In order

to determine which interpretation is more likely, the assessment of a mother-tongue speaker will be necessary.

2.3.3.2. Signaling contrast of two referents

Let us now turn to the contrasting function of dem2-forms, which was briefly addressed by Dimmendaal & Schneider-Blum (to appear). Two passages from the present corpus provide evidence for this use and will be discussed below. One of the two examples is shown in (38).

(38)　*y-ʌhunen*　　*ŋkwiyʌ*　*ɲ=ɪ-waan;*　　*kɪ-tɪɪn=ɪ*　　*y-ɛɛh*　　　*ŋkʊ=ṭaŋ,*
　　　PL-woman　COP　　INS=PL-sibling　SG-one=SEL　PL-sorghum　COP=LOC3

　　　kɪ-tɪɪn=ɪ　　*kuŋkwʌŋ*　　*almʌŋ=ṭaŋ=ʌŋ.*
　　　SG-one=SEL　something　COP.NEG=LOC3P=NEG

　　　cɪ-yaa　　*kaar-ak*　*kuŋkwʌŋi*　　*pɨnʌ*　*yay-ɪŋ=ṭaŋ*
　　　SG-DEM2　lack-AP　something=SEL　3SG　go.repeatedly-VENT=LOC3P

　　　ʊ=kʊ-lala=yaa　　　*mɛ=yɛ*　　*hɪ=ṭuuŋ*　　　*yʌntuwʌŋ [...].*
　　　DIR=SG-follower=DEM2　OPT=REP　give=LOC.LOG.SG　things

　　　"There were women who were sisters; the one has sorghum (for herself), the (other) one does not have anything. That one who does not have anything, she comes repeatedly (to the other one) in order to give to her things [...]."
　　　(031007_Daldum_ClanDividing 004-008)

In line three to four of (38), the speaker mentions two sisters who were just introduced at the beginning of the example. To describe that one of the two sisters, who does not possess any food, asks the other sister, who grows her own sorghum, for groceries, the speaker realizes the two clauses in line three and four. In these clauses both sisters are marked by the second demonstrative category, first by a pronoun and then by a clitic. The two dem2-forms in this example mark the following type of contrast: Two referents that are semantically similar and share the same grammatical features have opposite amounts of food. In order to better characterize the type of contrast that causes the realization of dem2-forms, let us briefly turn to the second corpus example shown in (39).

(39) *u-kudu-y-uk-aa*   *c-akal-ɘl.*   ʋŋʋnɔwa   ʋ-kʋdʋ.
      PAST-begin-EP-CAUS-INS SG-quarrel-MID 1SG   PAST- take

      ɘ-dah-ɪ   *n=cɪ-yaa:*   ʋŋʋnɔwa   ʋ-kʋdʋ.
      PAST-say-TR   ERG=SG-DEM2 1SG   PAST-take

      ɘ-dah-ɪ   *n=cɪ-yaa:*   ayɪla ŋ=akaŋ=a   ʋ-kʋdʋ.
      PAST-say-TR   ERG=SG-DEM2 no   INS=somebody=FOC.SG PAST-take

      "And they started fighting. 'I caught it.' The other one said: 'I caught it.' That one
      (i.e. the third one) said: 'No, it is him who caught it."
      (011007_14_AdlaanMisiria_Horsequarrel 039-043)

In this example, three protagonists argue about who owns a captured horse: While two
of them (protagonist1 and protagonist2) got hold of the horse at the same time and now
lay claim to it, a third referent (protagonist3) appears and expresses his opinion about
who rightfully owns it. As in (38), two of the protagonists are referred to by dem2-
marked forms: Protagonist2 and protagonist3 are referred to by dem2-pronouns. The
contrast emphasized by the dem2-forms can be characterized as follows: Protagonist2
and protagonist3 take opposing stances on the question of who owns the horse. Again,
both referents share the same grammatical features.

On the basis of the two corpus examples discussed above, the contrasting function of
dem2-forms can be characterized as follows: the explicit expression of opposing actions
or states of referents that share the same grammatical features. However, further
investigation will be necessary to assess whether other instances of contrasting dem2-
marked referents are consistent with this preliminary characterization. Nevertheless, the
second demonstrative in Tima confirms what was observed by Meira & Terrill (2005),
i.e. that demonstratives serve to mark contrast in several languages (Meira & Terrill
2005: 1131). However, while Meira & Terrill (2005) show that demonstratives in Tiriyó
(Cariban) and Lavukaleve (Papuan) express the contrast of entities on an exophoric level
(Meira & Terrill 2005: 1131), Tima provides evidence that demonstratives can also
signal contrast endophorically.

I will conclude this section by briefly comparing the type of contrast described above
with two other types of contrast that receive morphologically distinct markings in Tima,
which have been discussed by Becker & Schneider-Blum (2020). According to Becker &
Schneider-Blum (2020), Tima speakers use two morphological strategies to mark
different types of contrast: First, the selective marker serves to "draw attention to the
selected alternative" (Becker & Schneider-Blum 2020: 22) without explicitly excluding

alternative referents (Becker & Schneider-Blum 2020: 25) (see §1.2.2) as in (40). Note that the selective marker can only be added to a modifying element of a complex noun phrase, where it attaches to the last element (Becker & Schneider-Blum 2020: 18). It cannot be attached to simple noun phrases.

(40)   Becker & Schneider-Blum (2020: 20)

    kòlná=nà   *ù=kúú=*(yí)*   *nà*   *kòlná=ná*   *í=ìhɔ̀ɔ̀k=*(í)*
    feast=DEM1 DIR=dog=SEL and feast=DEM1 DIR=birds=SEL

    ɲ̀=ì hwáá   *kárkàmán=ὲ*   *ὸ-kɔ́yɔ̀*   *ádí* *kòlná=nà.*
    ERG=people Karkaman=FOC.PL 3-make:PAST also feast=DEM1

    í=ìlòɓá=*(yí).
    DIR=seeds=SEL

    "The feast of the dog and the feast of the bird were organised by the Karkaman clan, also the feast of the seeds."

On the other hand, the clitical focus marker expresses different kinds of contrast, which can be grouped into the following three types: The implicit exclusion of alternatives, the explicit exclusion of alternatives, and the marking of an unexpected referent (Becker & Schneider-Blum 2020: 18). The fact that the FOC-marked contrast either implicitly or explicitly excludes alternatives, except when the referent is unexpected, distinguishes it from the type of contrast marked by the selective marker. Similar to the SEL-clitic, the FOC-marker is placed at the very end of the noun phrase it marks (Becker & Schneider-Blum 2020: 11). Unlike the SEL-clitic, however, it can be attached to simple noun phrases (Becker & Schneider-Blum 2020: 10). (41) shows an example discussed by Becker & Schneider-Blum (2020) in which two noun phrases are marked by the FOC-clitic. In this case, two focus markers are attached to explicitly contrast the actions of two referents.

(41)   Becker & Schneider-Blum (2020: 14)

    ʔáʔà, *àká=*(wà)* *ὸ-mɔ́ɔ́k*   *íídí*   *ꜜyábǔh,* *yábὸh=*(ε)* *ɨ̀-kʌ́ꜜlúk.*
    no   Aka=FOC 3-drink:PAST water meat   meat=FOC 3-eat:PAST

    ɳ̀=kòkùúŋ.
    ERG=Kokuurang

    (I think Kokuung ate soup.) "No, *Aka* had soup, Kokuung had *meat*."

Given the two morphological ways of marking contrast, i.e. the selective and the focus marker, the question arises why a third strategy, i.e. the realization of dem2 forms, is additionally attested in Tima. There are three possibilities: First, dem2-marked forms are realized in contexts where the attachment of one or both of the other two morphemes is not possible due to morpho-syntactic constraints. Second, dem2-forms are used to express a different type of contrast. Finally, one could hypothesize that dem2-forms are in free variation with one or both of the other contrast markers.

Comparing the selective marker and the dem2-clitic, the following can be observed: While the dem2-clitic can be attached to simple noun phrases, the selective marker cannot. Thus, one could assume that dem2-clitics are used instead of the selective marker when contrast is to be marked on simple noun phrases. However, this hypothesis can be neglected because the two mark different types of contrast: While the selective marker neither implicitly nor explicitly excludes alternatives, the dem2-marker marks the opposite actions or states of multiple referents (see above).

Comparing the type of contrast marked by the focus clitic with dem2-forms the following can be observed: FOC-markers most often implicitly exclude alternatives (Becker & Schneider-Blum 2020: 18), thus marking only one of the contrasted referents, while the other is not mentioned. Dem2-forms, on the other hand, always mark multiple referents in the examples examined, thus explicitly contrasting them. However, as shown in (41) the focus marker can likewise occasionally mark the explicit opposition of two referents. The question why in examples like (41) focus markers are used instead of dem2-forms remains to be investigated.

3. Conclusion

This paper investigated the functions of the three demonstrative roots -*nʌ/-na*, -*yaa* and -*weeŋ* in Tima. Specifically, different contexts of use of the three demonstratives were proposed on the basis of individual examples from a corpus consisting of twelve narrative stories. It was shown that the use of the three demonstratives in Tima goes far beyond the basic function of referring to entities in the immediate surroundings of the speaking situation. Rather, -*nʌ/-na*, -*yaa*, and -*weeŋ* provide evidence that demonstratives serve a variety of functions, as described by Himmelmann (1996), who proposed four potentially universal functions of demonstratives: The situational use, the discourse deictic use, the tracking use and the recognitional use (Himmelmann 1996:

240). The demonstratives in Tima support the proposed universality: All four uses correspond to one of the functions identified in the present analysis, as shown in the course of §2. Table (6) summarizes the functions of the three demonstrative roots identified in the present analysis and their correspondence to Himmelmann's (1996) potentially universal uses of demonstratives.

Table (6): Functions of *-nʌ/-na*, *-yaa* and *-weeŋ*

demonstrative category	root	marking of..	consistent with Himmelmann's (1996) description of the..
1	*-nʌ/-na*	proximity	situational use
		short distant anaphoras	tracking use
		complex anaphoras	discourse deictic use
		definiteness	-
2	*-yaa*	remoteness	situational use
		contrast	-
3	*-weeŋ*	long distant anaphoras	tracking use
		entities known by personal knowledge	recognitional use
		the less activated of several possible referents	tracking use

However, the uses described by Himmelmann (1996) cannot account for two functions identified in the present corpus: the marking of contrast by *-yaa* (see §2.3.3.2) and the marking of a restricted type of definiteness by *-nʌ/-na* (see §2.3.2.3). Regarding the fact that Himmelmann's (1996) analysis did not include the marking of definiteness, the following should be noted: The function of demonstratives in marking definiteness obviously depends on whether a given language has definite articles or not. However, it is worth investigating whether the marking of definiteness by demonstratives is widespread in languages without definite articles. Contrast marking by demonstratives, on the other hand, has already been described by Meira & Terrill (2005) (see §2.3.3.2). However, while Meira & Terrill (2005) provided evidence exophoric contrast marking by demonstratives in Tiriyó and Lavukaleve, Tima shows that contrast marking by demonstratives can also be on an endophoric level.

To conclude the discussion of Himmelmann's (1996) proposed uses of demonstratives and their application to Tima, a final note should be added regarding the correspondence of the demonstrative category and the use it performs. The languages studied by Himmelmann (1996), which have two or three demonstrative categories,[24] use proximate demonstratives for the tracking use and distal demonstratives for the recognitional use (Himmelmann 1996: 243). Tima deviates from this tendency: The third demonstrative root -*weeŋ*, which cannot refer exophorically, carries out the recognitional use (see §2.3.1.2) while both the proximate root -*nʌ/-na* and -*weeŋ* provide evidence for the tracking use (see §2.3.1.3 and §2.3.2.1).

Nor do the three demonstrative roots of Tima confirm a correlation between the demonstrative category and its function claimed by Ariel (1990): the assumption that distal demonstratives anaphorically mark less accessible entities than proximate demonstratives (Ariel 1990: 73). In Tima, the non-exophoric third demonstrative root -*weeŋ* marks lower accessible referents in relation to the proximate root -*nʌ/-na* (see §2.3.2.1), while the distal demonstrative root -*yaa* does not seem to indicate anaphoric coreference (see §2.3.3.1).

This correlation between accessibility and the chosen referential form suggests that Ariel's (1990) accessibility theory is somewhat applicable to the referential devices of Tima. Based on the predictions of Ariel (1990) and the results of the present analysis, a first proposal of an accessibility hierarchy of referential forms in Tima may look like the one shown in figure (3).

Figure (3): Preliminary application of the accessibility hierarchy to Tima[25]
zero > personal pronouns > dem1-pronouns > dem3-pronouns > nouns > dem1-marked nouns > dem3-marked nouns

However, the hierarchy shown in (3) is only preliminary and requires extensive research to be tested and modified. In particular, it is necessary to calculate the textual distances from anaphorically used zero forms, personal pronouns and bare nouns to their antecedents. Furthermore, a future study should distinguish between demonstrative pronouns and the noun phrases that are attached by demonstrative clitics. However, the

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[24] English, Indonesian and Tagalog (Himmelmann 1996: 243)

[25] The further up the hierarchy a referential form is, the more accessible the referents it specifies.

number of demonstrative pronouns in the present corpus was too small to be subjected to independent quantitative analyses.[26]

4. Annex

Table (7): Variables and its variants of the annotation

Name of the variable	Description	Variants
dt_app	Does the noun phrase, including the demonstrative root, function as an apposition or as a dislocated topic?	- Dislocated topic Apposition
sel	Is the noun phrase, including the demonstrative root, marked by the selective clitic?	- selective marker
rel	Is the noun phrase, including the demonstrative root, further specified by a relative clause or itself part of a relative clause?	- Followed by a relative clause Inside a relative clause
ds	Is the noun phrase, including the demonstrative root, part of direct or indirect speech?	- direct speech indirect speech
endo_exo	Does the noun phrase, including the demonstrative root, refer on an exophoric or endophoric level?	endophoric exophoric unclear
distance	How far apart are the demonstrative marked anaphoric element and its antecedent?	Number of clauses
ant_new	Was the antecedent of the demonstrative marked anaphoric element newly introduced?	- new antecedent old antecedent

5. References

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[26] There are 13 demonstrative pronouns, independent of their category, in the present corpus.

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number of demonstrative pronouns in the present corpus was too small to be subjected to independent quantitative analyses.[26]

4. Annex

Table (7): Variables and its variants of the annotation

Name of the variable	Description	Variants
dt_app	Does the noun phrase, including the demonstrative root, function as an apposition or as a dislocated topic?	- Dislocated topic Apposition
sel	Is the noun phrase, including the demonstrative root, marked by the selective clitic?	- selective marker
rel	Is the noun phrase, including the demonstrative root, further specified by a relative clause or itself part of a relative clause?	- Followed by a relative clause Inside a relative clause
ds	Is the noun phrase, including the demonstrative root, part of direct or indirect speech?	- direct speech indirect speech
endo_exo	Does the noun phrase, including the demonstrative root, refer on an exophoric or endophoric level?	endophoric exophoric unclear
distance	How far apart are the demonstrative marked anaphoric element and its antecedent?	Number of clauses
ant_new	Was the antecedent of the demonstrative marked anaphoric element newly introduced?	- new antecedent old antecedent

5. References

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[26] There are 13 demonstrative pronouns, independent of their category, in the present corpus.

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