Argumentum 22 (2026), 1–16
Debreceni Egyetemi Kiadó
DOI: 10.34103/ARGUMENTUM/2026/1

An Experimental Study on Locative Demonstratives in Tunisian Arabic

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Abstract

This study investigates the meanings of the two non-proximal locative demonstrative forms (non-prox1: *ghadi* and non-prox2: *ghadika*) in Tunisian Arabic (TA). The aim is to determine whether TA employs a genuine three-way locative demonstrative system or a two-way system with an additional emphatic component that is not part of the deictic core. Under a two-way analysis *ghadika* is expected to encode an additional emphatic meaning which can be interpreted as intensification or contrast. In comparison, under a three-way analysis, the distinction may be speaker-hearer anchored (*ghadi* means close to hearer and *ghadika* means far from both speaker and hearer) or speaker-anchored (*ghadi* means medium distance from speaker and hearer and *ghadika* means far from both speaker and hearer). Two experiments were conducted with two independent groups of 45 native speakers of TA. The results suggest that TA operates with a two-way locative demonstrative system, in which *ghadi* functions as the sole non-proximal form and *ghadika* functions as the emphatic component.

Keywords: Tunisian Arabic, locative demonstratives, contrastivity, two-way system, three-way system

1 Introduction[1]

The term *deixis* refers to words and phrases that point to elements within a situation or conversation, such as participants, time, and place relevant to the current moment (Levinson 1983). Deictic expressions are typically categorized into several types: personal, spatial, temporal and discourse deixis (Diessel 1999, Lenz 2003). Personal deixis involves pronouns that refer to the participants in the discourse, such as *I* and *you*. Spatial deixis is realized through demonstratives that encode location relative to the speaker and the hearer, and these can appear as nominal demonstratives like *this* and *that* or locative demonstratives such as *here* and *there*. Temporal deixis situates events in time using terms such as *now*, *then*, and *tomorrow*. Finally, discourse deixis refers to or anticipates parts of the discourse itself, as in *I've already said that*, where *that* points to a previous utterance.

The current study focuses on spatial deixis with respect to Tunisian Arabic locative demonstratives. Approaching the issue from the perspective of Arabic in general, Hassan (1987) and Alqarni (2020) argue that Classical Arabic (CA) has a three-way system, and they claim that some of the demonstratives in CA do not exist in Modern Standard Arabic (MSA). Jarbou (2012) and Zaki (2011) claim that the medial demonstrative is fading from use. In contrast, Ryding (2005: 320) maintains that MSA retains a three-way locative demonstrative system, where the

[1] I thank my anonymous reviewer for the helpful comments on the submitted version of the paper. All remaining errors are mine.

locative adverbs *huna* 'here', *hunaka* 'there', and *hunalika* 'over there' mark different degrees of spatial distance. Building on this, Alluhaybi (2020) found that while *huna* is proximal, *hunaka* medial, and *hunalika* distal, most native Arabic speakers do not clearly distinguish between medial and distal forms, often using *hunaka* in place of *hunalika*. However, one limitation of Alluhaybi's study is the absence of native speakers of MSA, as it is a formal register not spoken natively in daily life.

The present study shifts the focus to Tunisian Arabic (TA), which is spoken natively. Since no studies specifically examining locative demonstratives in TA have been identified, the current research examines the meanings of the locative deictic forms in TA. Three locative deictic forms have been found in the Tunisian Arabic Corpus (TAC) (McNeil & Miled Faiza 2010): proximal (1a), non-proximal 1 (1b), and non-proximal 2 (1c) (these labels are adopted to remain neutral about the meaning of the two non-proximal forms):

(1) a. Proximal: *lena/ hna*[2] 'here'
b. Non-prox1: *ghadi* 'there'
c. Non-prox2: *ghadika/ghadikaya*[3] 'over there'[4]

Thus, the goal of this study is to gain insight into the specific meanings and functions of these three demonstrative forms in Tunisian Arabic. While *lena* is clearly a proximal form, the distinction between the two non-proximal forms, *ghadi* and *ghadika*, remains unexplored. The distribution of demonstratives in Tunisian Arabic could be determined by a single categorical factor such as hearer proximity, contrastivity, spatial distance or it could result from the combined effect of multiple factors as well. This latter option may be interpreted as having a general emphatic function.

The structure of the paper is the following. The second section provides an overview of the theoretical background and discusses the analytical options in detail. Building on this background, the third section discusses the goals of the study and gives an empirical overview on the locative demonstrative system in Tunisian Arabic. The fourth section presents the results of an experiment on TA native speakers to test the hypotheses. The final section discusses the results of the experiment and draws conclusions.

2 Theoretical background

This section discusses the cross-linguistic key distinctions in demonstrative systems in more depth: speaker-anchored versus speaker-hearer anchored frameworks, as well as the roles of contrastivity and intensification. While some languages anchor demonstratives to the speaker's location, others integrate both speaker and hearer as reference points, leading to more nuanced distinctions. Additionally, contrastive use and intensifier meaning components like "very" further shape how demonstratives function across languages.

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2 *Lena* and *hna* are synonyms (dialectal differences).
3 *Ghadika* and *ghadikaya* are synonyms (dialectal differences).
4 'Over there' is a provisional translation.

2.1 Speaker-anchored vs speaker-hearer anchored systems[5]

According to Diessel (1999:02, 36, 50), all languages possess a minimum of two demonstratives that exhibit deictic contrast: a proximal demonstrative indicating an entity close to the deictic center (e.g., English *this*) and a distal demonstrative indicating a referent situated far from the deictic center (e.g., English *that*). Such a binary distinction is the most common cross-linguistic setup.[6] However, there are languages that operate with a richer inventory. These additional distinctions can be related to distance, participant-location, or even distinctions based on elevation, visibility, etc. (see Diessel 1999, chapter 3).

A very prominent cross-linguistic deictic division is the one between speaker-anchored and speaker-hearer anchored systems (Anderson & Keenan 1985: 282–286; Fillmore 1982: 49–50). In speaker-anchored systems, the middle term indicates a location at a medium distance from the deictic center, as in Yimas with *k* (proximal), *m* (medial), and *n* (distal) (Diessel, 1999: 39). In speaker-hearer anchored systems, the middle term may denote proximity to the hearer, as in Korean with *i* used to refer to an object near the speaker, *ku,* used to indicate a referent close to the hearer and *ce,* used to refer to an object that is far from the speaker and the hearer (Diessel 1999: 20, Sohn 1994: 114). However, in TA interpreting *ghadi* as "medium distance" raises an issue. Unlike proximal and distal categories, which can be relatively clearly identified, medial distance is relatively subjective and context-dependent, varying according to the speaker's perspective, the spatial configuration, and the discourse situation. As a result, what counts as "medium distance" cannot be consistently represented or interpreted across contexts.

The distinction between two-way and three-way demonstrative systems and the distinction between speaker-anchored and speaker-hearer anchored systems represent two independent dimensions. A speaker-hearer anchored system requires a secondary anchor point, namely the hearer, and is therefore most clearly manifested in three-way systems. By contrast, two-way systems are typically described as speaker-anchored, since they lack an additional anchoring point. However, as Lander and Haegeman (2018: 381,384) point out, two-way systems may exhibit either proximal-medial syncretism or medial-distal syncretism.[7] This pattern suggests that the hearer anchor may still be relevant in a two-way system, since one of the contrasts can be aligned with the hearer's location despite the absence of a fully distinct medial category.

Some languages employ speaker-hearer anchored systems, which encode spatial relations that incorporate both the speaker and the hearer as anchor points. In fact, Lander and Haegeman (2018) propose that a universal core of spatial deixis involves a three-way contrast: proximal (close to speaker), medial (close to hearer), and distal (far from both speaker and hearer). While

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[5] These systems are often described in the literature as person-based versus distance-based. In distance-based systems, the choice of demonstratives depends on the distance from the speaker, whereas in person-based systems the location of the speaker and the hearer can be relevant. However, as noted by the reviewer, this terminology can be misleading as it may suggest that person-based systems are independent of spatial distance. For clarity, I therefore adopt anchor-based terminology throughout the paper and refer to these systems as speaker-anchored (distance-based) and speaker-hearer anchored (person-based). The reviewer also mentions the alternative labels single-anchored and double-anchored for the same distinction.

[6] Typological data from the World Atlas of Language Structures show that most languages exhibit a two-way demonstrative system. In a sample of 234 languages, 126 display a two-way contrast, 88 a three-way contrast, while systems with four or more contrasts are relatively rare (9 languages with four-way contrasts and 4 languages with five or more contrasts). Only a small number of languages lack a distance contrast altogether (7 languages) (Diessel 2013, WALS 2020).

[7] Syncretism refers to a situation in which two or more grammatical categories are expressed by the same morphological form. In the case of demonstratives, proximal-medial syncretism occurs when the proximal and medial categories share the same form, while the distal form remains distinct, whereas medial-distal syncretism occurs when the medial and distal categories are realized by the same form and only the proximal is morphologically distinct. In such cases, a language may surface with only two forms even though the underlying deictic structure still reflects a three-way system.

the speaker-hearer anchored system relies on the locations of the speaker and the hearer, it may give rise to more than three-way distinctions. For instance, Ainu exhibits a four-way demonstrative system: *tan* 'this: right in front of the speaker', *taan* 'this: close to the speaker', *toan* 'that: close to the hearer', toon 'that: far from both the speaker and the hearer' (Bugaeva 2008: 46).

Lander and Haegeman (2018: 383) suggest that the fact that researchers might identify systems as speaker-anchored ones might emerge from a misinterpretation of deictic systems where the hearer's role as an anchor is overlooked. Imai (2003: 20) also argues that linguists often prioritize the speaker as the primary reference point, while neglecting the hearer's perspective. This oversight can lead to an incomplete understanding of the system, where the interplay between speaker and hearer is misrepresented as purely speaker anchored.

Additionally, Lander and Haegeman (2018: 417) propose that distinctions such as *near to, slightly far from,* or *far from* do not create a separate system of distance distinctions. Instead, they act as potentially abstract semantic features in demonstratives that expand the core speaker-hearer anchored framework rather than creating a separate speaker-anchored system. This means that rather than forming an independent speaker-anchored system, they expand and add detail to the core speaker-hearer anchored system, showing how close or far something is relative to the speaker or hearer. In other words, by adding these modifiers, a given language may express more nuanced spatial relationships by allowing speakers to indicate different degrees of closeness or remoteness relative to the speaker's location. For example, an object can be described as *near to the speaker, slightly far from the speaker,* or *far from the speaker*, all while still using the core speaker-hearer anchored demonstrative structure. This means that even though the system may appear to be speaker-anchored, especially when modifiers are used, it is still an enhanced speaker-hearer anchored system.

In summary, speaker-anchored systems focus on the spatial relationship to the speaker, typically distinguishing between near, intermediate, and far referents. Speaker-hearer anchored systems, on the other hand, analyze deixis around both the speaker and the hearer (Lander & Haegeman 2018). The next section will discuss how the contrastive use and adverbial remoteness like "very" function in languages with two-way systems.

2.2 Contrastivity

Contrastivity in demonstratives plays a key role in deictic functions, allowing the speaker to draw the hearer's attention to a particular referent by contrasting it with one or more other referents within a shared spatial, temporal, or conceptual framework. Tóth (2024: 80) mentions that according to Meira and Terrill (2005), contrastive uses of demonstratives are those in which multiple referents are set apart from each other, while non-contrastive uses lack this distinguishing function. In English, for example, the demonstrative *that* is only acceptable for body parts in contrastive contexts: *I hurt this/*that finger*, *this* is acceptable, while *that* is not, unless the speaker is contrasting two fingers, as in *This finger doesn't hurt, but that finger does* (Meira & Terrill 2005: 1132). This illustrates how the same demonstrative can serve both contrastive and non-contrastive functions, with usage determined by the discourse context rather than strict spatial distance.

Imai (2003: 69) emphasizes the role of contrast as one of the functional distinctions in demonstrative systems. According to him contrastive demonstratives are ones that are used to differentiate between two or more possible referents. For instance, a speaker may use one demonstrative to point out an object specifically to distinguish it from another, equally possible choice. Within this broader category, Imai identifies several subtypes of contrastivity. The first is equidistant contrast, which typically arises when two or more entities are at the same distance from the speaker, and different demonstratives are employed to distinguish between them. The

second is differentiation, which involves using demonstratives to mark out one item as distinct from others in the environment, even if distance is not the primary factor. Finally, there is selection, where demonstratives help the speaker single out one referent from a set of referents, essentially guiding the hearer's attention to the intended choice. All three subtypes show that contrast is not only about physical space, but it is also about directing the attention and differentiating between two or more referents. This emphasis on contrast is not unique to Imai. Levinson (2006: 108), in his typology of deixis, also treats contrast as an important dimension, placing it within the gestural subcategory. In other words, Levinson highlights that contrast emerges not only in abstract systems but also in real-time pointing and gestural usage, again reinforcing its central role in deictic typology.

According to Tóth (2024: 80), speakers may use proximal and distal demonstratives *this* and *that* to distinguish between objects such as two phones held at the same distance even though the spatial difference is neutralized. In other words, a speaker holding two phones might refer to one as *this phone* and the other as *that phone*, using the proximal and distal terms to create a contrast even if both objects are equidistant. In such cases, the demonstrative choice is dictated by the need to contrast rather than by actual spatial distance.

Lander and Haegeman (2018: 413) describe that in English, the system is sometimes described as having a three-way distinction, with archaic or dialectal forms like *thon(der)* and *yon(der)* serving as a third, "remote" category.[8] From this perspective*, yonder* functions as a remote demonstrative, meaning "at a distance but within view." However, most linguistic analyses suggest that modern English fundamentally operates on a two-way system, with this "remote" category representing an archaic or historically derived distinction rather than part of the contemporary system. In this spirit, Lander and Haegeman (2018: 414) argue that *yonder* is not part of the core deictic two- or three-term system but is instead an enhanced form originating from meaning Distal. It can be interpreted as contrastive, or it could mean that *yon* conveys a far distance and *yonder* conveys even a further distance by adding an adverbial modifier *very* to express degree (further distance). Thus, the *-der* in *yonder* functions as a morpheme that operates like an adverbial modifier of degree. In this sense, the remote category does not introduce a new core deictic term, but instead represents an additional layer attached to the distal form to express an intensified degree of distance. In other words, the remote category is formed by overlaying additional components onto the basic demonstrative framework, rather than constituting a fundamental part of the system (Lander & Haegeman 2018). However, what counts as "very far" is subjective, speakers may differ in their perception of distance depending on context or spatial configuration etc.

Note that in TA the contrastive use of *ghadika* can be analyzed in a way that requires another distal object to be present. Without a second referent to contrast with, *ghadika* would not be able to be used. This means that its use depends not only on distance but also on the presence of a contrasting object.

To sum up, cross-linguistic research reveals significant differences in how contrast is used (equidistance, differentiation, selection) (Imai 2003: 69). Additionally, some languages use adverbial modification to extend the basic demonstrative framework, rather than relying on a fundamental three-way distinction (Lander & Haegeman 2018). These cross-linguistic patterns are directly relevant to our investigation of TA's demonstrative system. Specifically, the aim is to determine whether the non-prox2 form in TA functions as an adverbial intensifier/ remote (like English "over there") or as a genuine third category within a speaker-anchored or speaker-hearer anchored system.

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[8] Remote indicates that an object is very far, often outside the shared place. Unlike distal that indicates that an object is far (not very far), but within shared space (Lander & Haegeman 2018).

3 Goals of the study

Adverbial demonstratives that specify location are called locative demonstratives. In TA, they have 3 forms, as illustrated in (2).

(2) a. Proximal: *hna/ lena*: 'here'
b. Non-prox1: *ghadi* 'there'
c. Non-prox2: *ghadika/ghadikaya* 'over there'

All of the three forms (except for the synonym *lena*) can be accompanied by one preposition e*l* "to" (3):

(3) a. Proximal: el.*hna/ lena*: 'here'
b. Non-prox1: el.*ghadi* 'there'
c. Non-prox2: el.*ghadika/el.ghadikaya* 'over there'

The examples below that are from the TAC show that there are three locative deictic forms:

(4) *khalit* *awreq* *hna* *fi* *chemise* *zarqa*
left.1SG papers here.PROX in shirt blue
'I left papers here in a blue shirt.'

(5) *ma'andeksh* *el.haq* *terkeb* *ghadi*
NEG.have.NEG the.right ride.2SG there.NON-PROX1
'You have no right to ride there.'

(6) *ken* *testaneni* *ghadika* *taw* *talqani* *el.lila*
if you.wait.me over.there.NON-PROX2 will you.find.me the.tonight
'If you wait there for me you will find me tonight.'

In this paper, I explore two main ways of looking at the meaning of the TA locative demonstrative paradigm. While *lena* is clearly interpreted as a proximal demonstrative, the objective is to determine the distinction between the two non-proximal forms, *ghadi* and *ghadika*. The first view suggests that TA operates with a two-way system with an additional emphatic layer. In this conception, *lena* represents proximity, *ghadi* corresponds to a distal form. *Ghadika,* in turn, would have an emphatic function, which may be interpreted in several ways: either it is only relevant when there is contrast between two referents, or it functions as an adverbial intensifier like "very" as it adds an intensifier *ka* to further emphasize distance. In other words, non-prox1 is to be interpreted as distal, while non-prox2 is not part of the core deictic system. Instead, it acts as an emphatic demonstrative. TA native speakers may use this emphatic demonstrative for reasons like the referent object being very far or it being contrasted with another object.

According to the second view, TA is to be seen as a genuine three-way based system. If TA functions with a speaker-anchored three-way deictic system (proximal, medial, and distal), *lena* would mark proximity, *ghadi* would represent a medium distance, and *ghadika* would refer to a distant object. However, if TA operates with a speaker-hearer anchored system, the choice of demonstratives would rely on the perspective of the speaker S or hearer H (Anderson & Keenan 1985: 282–286; Fillmore 1982: 49–50). Therefore, applied to TA, *lena* (proximal) would indicate closeness to S, *ghadi* (medial) would represent proximity to H, and *ghadika* (distal) would mark distance from both. Hence, the two approaches speaker-hearer anchored vs speaker-anchored attribute different meanings to the non-proximal forms: *ghadi* (non-proximal 1) is interpreted as

either indicating medium distance or proximity to H, while *ghadika* (non-proximal 2) is seen as marking either a far distance or a very distant location. Table 1 below sums up the meanings of each of the 3 forms in every view:

	2+1		3-way	
	Contrastive	"Very"	Speaker-hearer anchored	speaker-anchored
Proximal *hna*	Close	Close	Close	Close
Non-prox1 *ghadi*	Far	Far	Close to H	Medium
Non-prox2 *ghadika*	Contrasted	Very far	Far from SH	Far

Table 1: Potential meanings of the 3 forms.

4 Experiments

In this section, I report on two experiments conducted on TA native speakers. The first experiment tested hearer proximity, and the second one tested contrastivity.

4.1 Experiment 1: Hearer proximity

The goal of this experiment is to investigate whether hearer proximity influences the choice of locative demonstratives in TA or not.

4.1.1 Methodology

45 adult native speakers of Tunisian Arabic participated in this experiment, some demographic data about the participants is presented below:

- Age distribution:
  - 25 participants: 20–29 years
  - 14 participants: 30–39 years
  - 2 participants: 40–49 years
  - 3 participants: 15–19 years
  - 1 participant: 60–69 years
- Gender:
  - 36 females
  - 9 males
- Geographical origin:
  - 25 originating from the coastal region (Sahel)
  - 9 from the North
  - 4 from the central regions
  - 7 from the South.

- Educational background:
    - 14 with a bachelor's degree
    - 13 with a PhD
    - 11 with a master's degree
    - 3 with a baccalaureate degree
    - 4 had completed high school

Nine pictures were presented to the participants on separate pages of a Google form. To test the potential effect of hearer proximity, three different settings were presented. In the first setting, in the pictures, one object was placed close to the hearer and far from the speaker (Figure 1), in the second setting, one object was placed far from both speaker and hearer (Figure 2). The third setting represented an extra test item (a default setting), not related to hearer proximity, one object was placed at a medium distance from SH (Figure 3). Each one of the settings is tested in three different scenarios to increase item number and variation. In the first scenario (Figure 1), the participants were asked to pretend to be the father directing his son's attention to the animal mentioned in the text. In the second scenario (Figure 2), they were asked to pretend to be the teacher directing the pupil's attention to the object mentioned in the text, and in the third scenario (Figure 3), they were asked to pretend to be the husband directing the wife's attention to the object mentioned in the text. For each picture, participants were asked to choose the demonstrative they believed best suited the description, resulting in the most acceptable sentence.

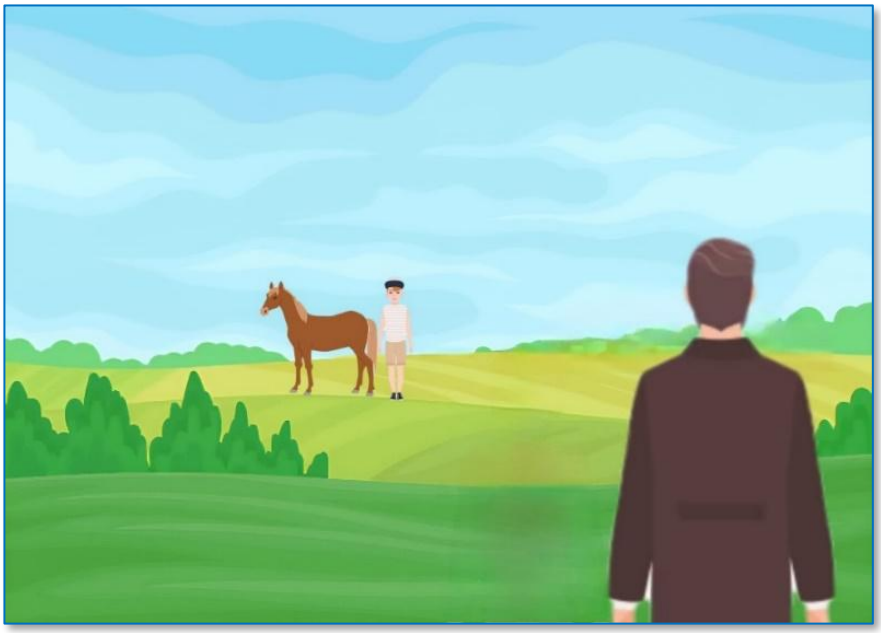

Figure 1: 1 object close to hearer and far from speaker.

(7) oq'ed al3eb m3a lh'san _____
sit play with the.horse___
'Keep playing with the horse____.'

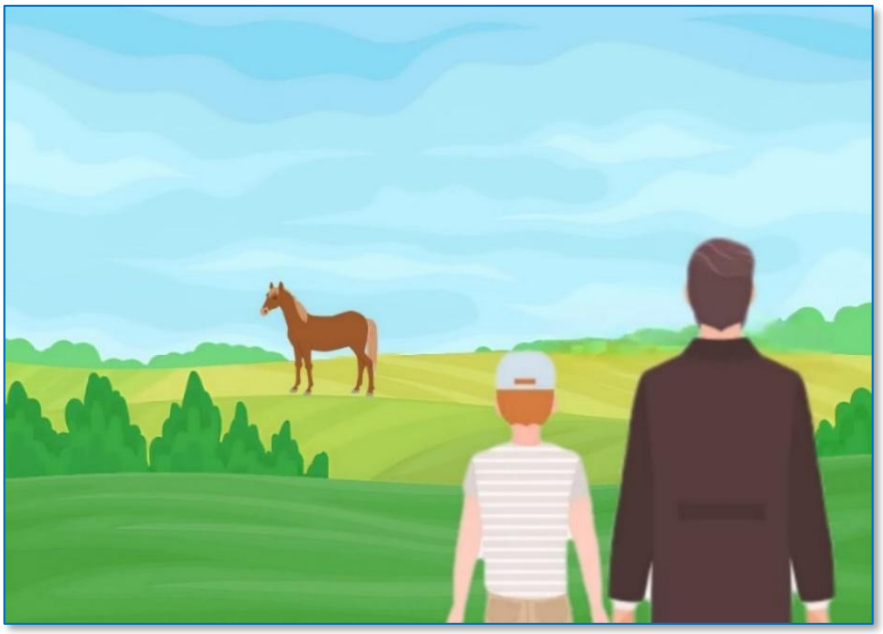

Figure 2: 1 object far from speaker and hearer.

(8) meskin lh'san qa'ed wah'dou___
poor the.horse s itting alone_____
'Poor horse staying _____alone.'

Figure 3: 1 object at a medium distance from speaker and hearer.

(9) shya'mel lh'san ____?
what.does.he the.horse___?
'What is the horse doing___?'

Every picture had one sentence in which the position of the demonstrative was left blank, and participants were expected to choose which of the given locative adverbial demonstratives fit the sentence. Participants were given a multiple-choice list with the locative adverbial demonstrative forms: *hna, ghadi* and *ghadika*.

4.1.2 Hypotheses

- Hypothesis 1: (Hearer proximity)
  If hearer proximity is a factor in the demonstrative choice, then speakers are expected to prefer non-prox1 *ghadi* in Figure 1, where the referent is closer to the hearer, compared to Figures 2 and 3, where the referent is far from the hearer. If *ghadi* were chosen more in Figure 1, and *ghadika* in Figures 2 and 3 (both referents are far away from speaker and hearer) then it would support the speaker-hearer anchored distinction in the demonstrative system.
- Hypothesis 2: (Distance)
  If distance is a primary factor in the demonstrative choice, then speakers are expected to use non-prox2 *ghadika* in Figure 1 and 2. Also, speakers are expected to prefer non-prox1 *ghadi* in Figure 3, where the referent is located at an intermediate distance from both speaker and hearer.
- Hypothesis 3: (Combined factors)
  If both distance and hearer proximity influence demonstrative choice, then TA operates with a two-way system, and experiment 2 will determine if the additional layer of the two-way system functions as an emphatic layer or as contrastive.

4.1.3 Results

As noted before, in Experiment 1, participants were presented with nine images divided into three distinct settings, each containing three pictures accompanied by three sentences. They were asked to select the most suitable locative form based on the spatial relationship between the speaker, the hearer, and the object. With 45 participants responding to three sentences per setting, a total of 135 responses were recorded in each setting. In all the settings, the results from Table 2 show that *ghadi* was the predominant choice of demonstratives:

Factors	Locative demonstratives		
	hna	*ghadi*	*ghadika*
1 object far from SH	7	95	33
1 object close to hearer and far from S	10	99	26
1 object medium distance from SH	19	92	24
Total	36	286	83

Table 2: Experiment 1 results.

The analysis was performed using IBM's SPSS statistical software.[9] Responses were categorical (choice of demonstrative: *hna*, *ghadi*, *ghadika*), they were collected under different conditions (e.g., 1 object far from SH, 1 object close to H and far from S and 1 object medium distance from SH). To test whether demonstrative choice varied significantly across spatial conditions, the data was analyzed with the help of chi-square statistics. Regarding the choice of demonstratives there is no significant difference between the 3 factors (1 object far from SH, 1 object close to H but far from S and 1 object medium distance from SH) ($\chi^2(4) = 8.373$ $p = 0.079$, Cramer's V=0.1). When comparing the choice of demonstratives between two factors (1 object far from SH and 1 object close to H), the results show no significant differences ($\chi^2(2) = 1.442$ $p = 0.48$). Hence the predictions of hypothesis 1 (Tunisian Arabic only has a speaker-hearer anchored system) is rejected. However, when comparing the far and medium-distance conditions, the results show a statistically significant difference ($\chi^2(2) = 7.008$ $p=0.03$). However, the effect size is very small (Cramer's V= 0.1), indicating that the difference between the two conditions is weak. This suggests that although distance has some influence on participants' choices, it does not strongly or consistently determine demonstrative use as far as non-prox 1 and 2 are concerned. Thus, the results do not provide solid support for a speaker-anchored system and hypothesis 2 is also rejected. Therefore, the hypothesis that Tunisian Arabic operates with a two-way system is borne out and experiment 2 will determine whether contrastivity, which may be one manifestation of the emphatic function, plays a role in determining the TA demonstrative system or not.

4.2 Experiment 2: Contrastivity

The goal of this experiment is to test if contrastivity influences deictic choices for TA locative demonstratives or not.

4.2.1 Methodology

45 adult native speakers of Tunisian Arabic participated in this experiment, some demographic data about the participants is presented below:

- Age distribution:
    - 30 participants: 20–29 years
    - 8 participants: 30–39 years
    - 3 participants: 40–49 years
    - 1 participant: 50–59 years
    - 1 participant: 15–19 years
    - 2 participants: 60–69 years
- Gender:
    - 34 females
    - 11 males
- Geographical origin:
    - 17 originating from the coastal region (Sahel)
    - 14 from the North
    - 8 from the central regions
    - 6 from the South.

[9] I am grateful to Habib Al Ashkar for assistance with the statistical analysis of this study.

- Educational background:
    - 23 with a bachelor's degree
    - 14 with a PhD
    - 7 with a master's degree
    - 1 with a baccalaureate degree

Six pictures were presented to the participants on separate pages of a Google form. To test contrastivity, two different settings were presented. In the first setting, one object was placed far from speaker and hearer (Figure 4) and in the second setting, two objects were placed far from speaker and hearer (Figure 5). Both settings also had 3 different scenarios that were similar to the first experiment. In each picture, participants were asked to choose the demonstrative they believed best suited the description, resulting in the most acceptable sentence.

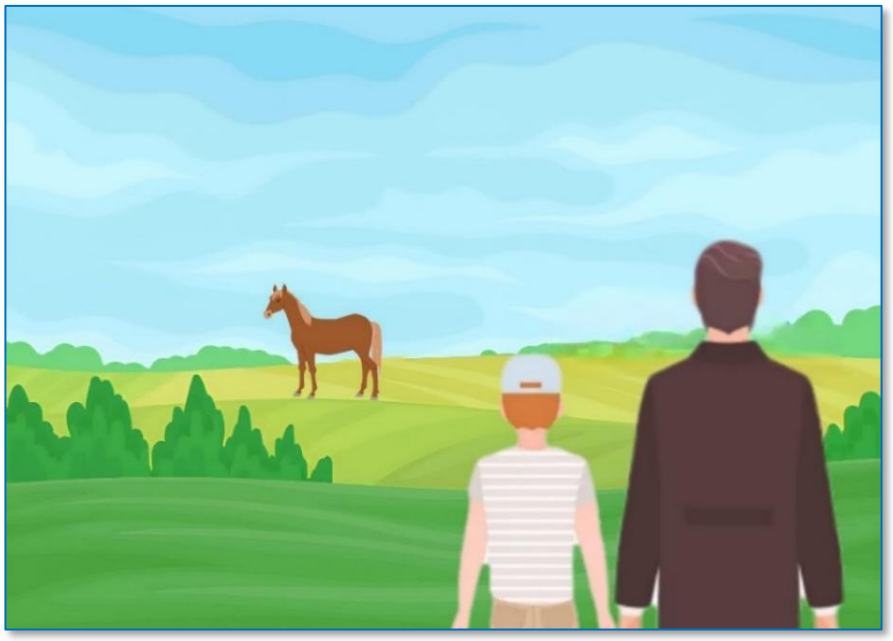

Figure 4: 1 object far from speaker and hearer.

(10) meskin lh'san qa'ed wah'dou___
poor the.horse sitting alone_____
'Poor horse staying _____alone.'

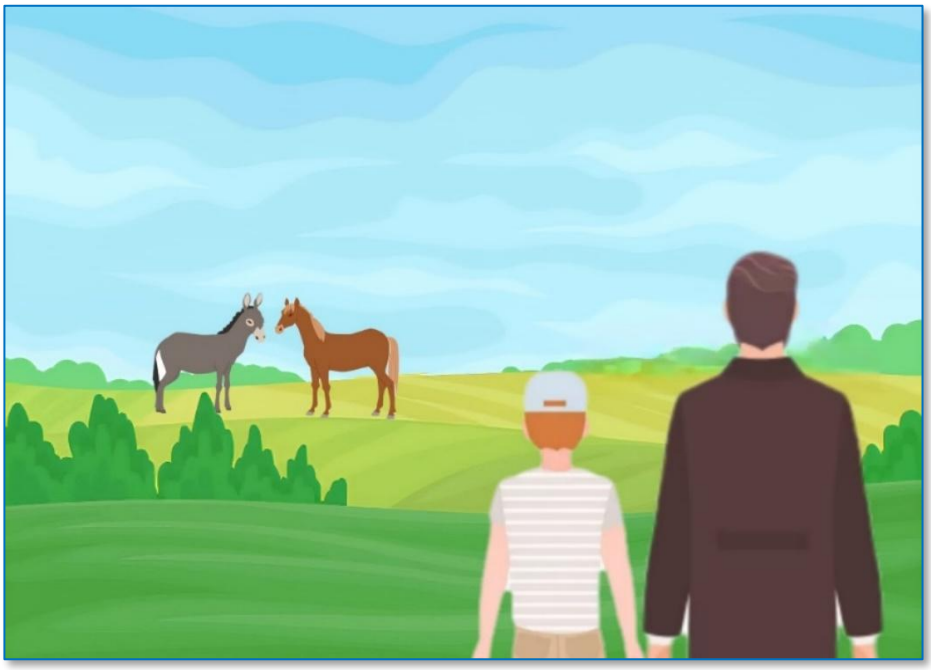

Figure 5: 2 objects far from speaker and hearer.

(11) lbhim eli ____ aqser men lh'san eli_____
the.donkey that's____ shorter than the.horse that's___
'The donkey that's ____ is shorter than the horse that's ____.'

Similarly to the first experiment, every picture had one sentence in which the position of the demonstrative was left blank, and participants were expected to choose which of the given locative adverbial demonstratives fit the sentence. In sentence (11) participants were presented with two gaps to see whether they choose a different demonstrative for each gap or not. Participants were given a multiple-choice list with the locative adverbial demonstrative forms: *hna, ghadi* and *ghadika.*

4.2.2 Hypotheses

- Hypothesis 4: (Contrastivity)
  If contrastivity is a factor in the demonstrative choice, then speakers are expected to use both non-prox1 *ghadi* and non-prox2 *ghadika* in Figure 4 to contrast two distinct referents, rather than using the same demonstrative for both. The use of different forms would indicate that *ghadika* serves a contrastive function.
- Hypothesis 5: (Distance)
  If distance is a factor in the demonstrative choice, then speakers are expected to use non-prox2 *ghadika* in Figure 5, where the referent is located at a greater distance.
- Hypothesis 6: (Contrastivity and distance)
  If both Contrastivity and distance are factors in the demonstrative choice, then the system can be analyzed as a 2-way system with an additional emphatic layer. Here, *ghadika* does not introduce a new deictic category but instead it enhances distance with its emphatic function.

4.2.3 Results

Experiment 2 employed a similar design as the first one but with two pictures and two sentences per scenario, intended to replicate and expand on the initial findings. In all the settings the results from table 3 show that *ghadi* was the predominant choice of demonstratives:

Factors		Locative demonstratives		
		hna	*ghadi*	*ghadika*
1 object far from SH		14	81	40
2 Objects far from SH	Gap1	17	98	20
	Gap2	17	61	57
Total		48	240	117

Table 3: Experiment 2 results.

The analysis was performed using IBM's SPSS statistical software. Responses were categorical (choice of demonstrative: *hna*, *ghadi*, *ghadika*), they were collected under different conditions (e.g., 1 object far from SH and 2 objects far from SH, gap1 and gap2). To test whether demonstrative choice varied significantly across spatial conditions, the data was analyzed with the help of chi-square statistics. Regarding the choice of demonstratives there is a significant difference between the factors (1 object far from SH, 2 objects far from SH) (χ^2 (4) =26.540 P<0.05). Also, when comparing gap 1 and gap 2 alone, the results also showed significant differences (χ^2 (2) =26.389 P<0.001) and Cramer's V value equals to 0,312 which indicated that the strength of the association is strong. Hence the predictions of Hypothesis 4 (Tunisian Arabic operates with a 2+ contrastive system) are borne out. As for hypothesis 5 and 6, they are rejected.

5 Discussion

The goal of the experiments presented in the previous section was to determine which factors govern the distribution of locative demonstratives in TA, considering three main possibilities, a speaker-hearer anchored system, a speaker-anchored system, or a two-way system with an additional emphatic layer. The results of the two experiments argue against viewing TA locative demonstratives as parts of a three-way system, neither a speaker-anchored, nor a speaker-hearer anchored subtype seems to adequately capture the data resulting from the experiments. Instead, the results support an analysis in which TA operates with a two-way system with an additional contrastive feature that functions as an emphatic layer.

Experiment 1 tested whether hearer proximity or distance alone determines demonstrative choice. The results showed no significant difference with the demonstrative choice when the object was close to the hearer versus when the object was far from both speaker and hearer. For instance, *ghadi* functions as the default non-proximal locative demonstrative form, it was preferred not only when the referent was far from both speaker and hearer, but also when it was located at a medium distance or close to the hearer, leading to the rejection of the speaker-hearer anchored hypothesis. Although a statistically significant difference was found between the far and medium-distance conditions, the effect size was very small. This suggests that distance may influence demonstrative choice to some extent, but it does not do so in a strong or systematic

way. The weak effect observed therefore indicated that distance alone is insufficient to account for the distribution of locative demonstratives in TA.

Experiment 2 examined the role of contrastivity. When two distant referents were introduced within the same sentence, participants frequently distinguished between *ghadi* and *ghadika*, often assigning different forms to the two referents. Unlike experiment 1, the results here revealed strong and statistically significant effects. The relatively large effect size indicates that speakers systematically adjust their demonstrative choices when contrast between referents is present. These findings support the hypothesis that TA operates with a two-way system in which the additional layer *ghadika* which has a contrastive meaning that functions as an emphatic layer, rather than encoding a third deictic distance.

These results align with previous work on contrastivity in demonstrative systems. Cross-linguistic studies have shown that contrast can motivate demonstrative choice independently of distance, as observed in English (Meira & Terril 2005; Tóth 2024) and Hungarian (Tóth 2024). Similarly, Lander and Haegeman (2018) argue that so-called "remote" forms often arise through intensification of distal forms rather than through the introduction of a new core deictic category. The present findings suggest that TA patterns with these systems, where contrastive or emphatic mechanisms extend a basic two-way distinction.

6 Conclusion

In conclusion, the findings from both experiments demonstrate that TA does not operate with a three-way demonstrative system, whether speaker-hearer anchored or speaker-anchored. Instead, it operates with a two-way system with an additional layer that is not part of the deictic core and has an emphatic contrastive function, with *hna* and *ghadi* forming the core deictic system and *ghadika* serving as the additional layer when there are two objects to contrast. However, an important limitation of the present study is that contrastivity may represent only one possible manifestation of the emphatic function often attributed to *ghadika*. While the results show that *ghadika* is sensitive to contrastive contexts, the experiment does not test other potential uses of intensification, the findings do not rule out a broader emphatic analysis but rather suggest that contrastivity is one clearly identifiable possibility for the use of *ghadika*. Also, this study does not examine other factors that have been shown to affect demonstrative choice cross-linguistically, such as visibility, elevation, geography and movement (Diessel 1999:51). These parameters were not manipulated in the experimental design, and their potential interaction with contrastivity and intensification in TA therefore remains an open question. Future research can be built on these findings, for instance, the same experimental approach can be applied to nominal demonstratives in TA, allowing for a direct comparison between nominal and locative systems.

References

Alluhaybi, I. A. (2020): *The place deixis of Modern Standard Arabic: A Closer Look at the Dimensional System and the Factors That Control the Choice of Place Deictic Expressions*. The University of Texas at Arlington. https://mavmatrix.uta.edu/linguistics_tesol_dissertations/102 (Accessed 10.03.2026).

Anderson, S. R. & Keenan, E. L. (1985): Deixis. In: Shopen, T. (ed.): *Language Typology and Syntactic Description*. Vol. 3: Grammatical Categories and the Lexicon. Cambridge: Cambridge University Press, 259–308.

Alqarni, M. (2020): The Morphosyntax of the Demonstrative System in Classical Arabic: A Distributed Morphology Account. *International Journal of Arabic-English Studies (IJAES)* 20.1, 19–50. https://doi.org/10.33806/ijaes2000.20.1.2

Bugaeva, A. (2008): Reported discourse and logophoricity southern Hokkaido dialects of Ainu. *Gengo Kenkyu* 133, 31–75.

Diessel, H. (1999): *Demonstratives: Form, Function and Grammaticalization. Typological Studies in Language*, *42*. Amsterdam: John Benjamins. https://doi.org/10.1075/tsl.42

Diessel, H. (2013): Distance Contrasts in Demonstratives. In: Dryer, M. S. & Haspelmath, M. (eds.): WALS Online (v2020.4) [Data set]. Zenodo. https://wals.info/feature/41A#2/19.6/133.6

Fillmore, C. (1982): Towards a descriptive framework for spatial deixis. In: Jarvella, R. J. & Klein, W. (eds.): *Speech, Place and Action*: Studies in Deixis and Related Topics 31–59. Chichester: John Wiley & Sons Ltd.

Hassan, A. (1987): *Al-naħwAl-wa:fii (The Complete Grammar)*. 3rd ed. 4 vols. Cairo: Daar Al-ma'arif.

Imai, S. (2003): *Spatial deixis*. State University of New York at Buffalo.

Jarbou, S. O. (2012): Medial deictic demonstratives in Arabic: Fact or fallacy. *Pragmatics. Quarterly Publication of the International Pragmatics Association (IPrA)*, 22.1, 103–118. https://doi.org/10.1075/prag.22.1.04jar

Lander, E. & Haegeman, L. (2018): The nanosyntax of spatial deixis. *Studia Linguistica* 72.2, 362–427. https://doi.org/10.1111/stul.12061

Lenz, F. (2003): *Deictic Conceptualization of Space, Time and Person.* Amsterdam: John Benjamins. https://doi.org/10.1075/pbns.112.02len

Levinson, S. C. (1983): *Pragmatics*. Cambridge: Cambridge University Press. https://doi.org/10.1017/cbo9780511813313

Levinson, S. C. (2006): Deixis. In: Horn, L. R. & Ward, G. (eds.): *The Handbook of Pragmatics.* Oxford: Blackwell, 97–121. https://doi.org/10.1002/9780470756959.ch5

Meira, S. & Terrill, A. (2005): Contrasting contrastive demonstratives in Tiriyó and Lavukaleve. *An Interdisciplinary Journal of the Language Sciences* 43.6, 1131–1152. https://doi.org/10.1515/ling.2005.43.6.1131

McNeil, K. & Miled, F. (2010): *Tunisian Arabic Corpus (TAC): 895,000 words* [Data set]. Retrieved from http://www.tunisiya.org (Accessed 10.03.2026).

Ryding, K. C. (2005): *A reference grammar of modern standard Arabic*. Cambridge: Cambridge University Press. https://doi.org/10.1017/cbo9780511486975

Sohn, H.-M. (1994): *Korean*. London: Routledge.

Tóth, E. (2024): *Empirical Perspectives on the Use of Hungarian Nominal Demonstratives*. Toronto: University of Toronto Press. https://doi.org/10.3138/9781487566388

Zaki, M. (2011): *The Semantics and Pragmatics of Demonstratives in English and Arabic.* Middlesex*:* Middlesex University.