Demonstrative Selection in Algerian Arabic: The Interplay of Distance and Perspective.

By

Bennouioua Ines

University of Debrecen

Institute of English and American Studies

Supervisor: Dr. Tóth Enikő

Debrecen, Hungary

2025

Table of contents

List of Tables and Figures

Abstract

Demonstratives serve as essential linguistic tools that help individuals reference and highlight specific objects or locations in their environment. According to Diessel (1999), these elements allow speakers to direct attention towards entities by considering their own relative position as well as that of the listener. The demonstrative system can differ in languages, significantly based on how speakers utilize spatial and contextual cues. Therefore, this study examines the demonstrative system of Algerian Arabic (Darija) to determine whether speakers of this dialect rely primarily on spatial distance, like in English (Diessel, 1999; Levinson, 2018), or it exhibits elements of a person-oriented system, as seen in Spanish (Cifuentes-Honrubia, 1989). I conducted an experimental design that replicates Rubio-Fernandez's (2022) [1] first experiment; I tested 83 native speakers of Algerian Arabic on a demonstrative selection task across different listener positions and object placements. The results indicate that demonstrative selection in Algerian Arabic is primarily based on distance since speakers tend to use proximal demonstratives for objects that are close and distal ones for objects that are farther away, which closely resembles the English system. However, the listener's position also affected the participants' choices, especially when the object was closer to the listener than to the speaker. These findings imply that while Algerian Arabic primarily follows a distance-oriented model, it also demonstrates subtle person-oriented tendencies in certain interactive contexts; this challenges the idea of the strict spatial demonstrative systems, emphasizing a more dynamic interaction between physical space and the listener's perspective in Algerian Arabic.

Keywords: Deixis, person-oriented system, distance-oriented system, shared attention, joint attention, Algerian demonstratives.

[1] See Rubio-Fernandez (2022) for more details.

Acknowledgements

بِسْمِ اللهِ الرَّحْمٰنِ الرَّحِيْمِ

In the name of Allah, the Merciful, the Compassionate

I am grateful to a lot of people who have helped and supported me throughout this hard and enjoyable journey. First, I would like to express my deepest gratitude to my supervisor, Dr. Tóth Enikő, for her guidance, patience, and support that have been invaluable throughout this research. She has always been there when I needed her insightful advice and encouragement. I am also deeply grateful to Debrecen University, which awarded me a scholarship to study for a master's degree. Moving from Algeria to Hungary has been a life-changing experience and I enjoyed every bit of it. My stay in Hungary will always be a source of very good memories with very good friends. I would also like to thank everyone who supported and helped me even a bit in my research at Debrecen.

My family deserves more than what I can express in words. I owe endless thanks to my parents, Zakia and Khelifa Bennouioua. Their unconditional love, sacrifices, and constant support have been the foundation of my journey. Thank you for believing in me, and in my abilities. Your encouragement has given me the strength to push forward, and I dedicate this achievement to you.

A special dedication to my dear sister Hanane, and her husband Ahmed Bougoufa. I cannot thank you enough for always being by my side. Also to my dear sister Ahlem, thank you for your support and motivation, I am truly blessed to have you both in my life.

Finally, I am also grateful to my friends and colleagues who have supported me in different ways throughout this journey. Whether through academic discussions, motivation, or simply being there when I needed a break, your presence has made this process easier and more meaningful.

A final word, I thank myself for not giving up on my dreams, for believing in my abilities, and for standing alone and strongly facing all the challenges of this journey.

Chapter 1 : Introduction

1.1 Aims of the research

This thesis investigates the semantic and pragmatic features of demonstratives in Algerian Arabic. This research has two main aims. First, to explore how these deictic expressions function in Algerian Arabic. And second, to address how distance and other interactive factors such as shared attention, listener location, object placement influence demonstrative choice.

This study first presents relevant literature on the types and functions of demonstratives across different languages (Bühler, 1990; Diessel, 1999, 2006; Levinson, 2006, 2018; Hassan, 1995; Ryding, 2005; Rubio-Fernandez, 2022). Demonstratives fulfill a range of linguistic functions beyond their basic deictic role. Primarily, they serve as referential expressions that allow speakers to identify and locate entities within a shared spatial or discourse context. For instance, in English, *this table* designates an entity near the speaker, whereas *that table* refers to a one farther away. Such expressions also play a crucial role in anaphoric references, by linking back to previously mentioned elements in discourse as shown in (1).

(1) *I bought a new phone.*

This phone has an excellent camera.

The proximal demonstrative *"this"* in this case, establishes continuity by referring back to *a new phone*, ensuring coherence. Moreover, demonstratives help to structure discourse by guiding the flow of information and maintaining textual cohesion[2]. In pragmatic contexts, they help to signal topic shifts, highlight important elements, and establish connections between ideas as in (2) in a context.

[2] The way different parts of a text are connected to make it clear and logically structured.

(2) *That reminds me...,*

The distal demonstrative *that* here does not refer to a specific object but rather to a previously mentioned or an implied idea which allows the speaker to smoothly transition to a new but related topic. The study later compares the data collected from an online questionnaire on the use of Algerian Arabic demonstratives to other languages, such as English and Spanish, to identify similarities and differences between these three languages. The focus here will be on the notions of person-oriented system and distance-oriented system. In a person-oriented system the focus is not just on the spatial distance but also on the relationship between the speaker, listener, and sometimes a third person. In this system, demonstratives are often linked to personal deixis, i.e. they reflect the speaker's and listener's perspectives as in (3), (4) and (5).

(3) Este libro → Used when the book is near the speaker.
this book

(4) Ese libro → Used when the book is near the listener.
that book

(5) Aquel libro → Used when the book is far from both the speaker and the listener.
that book over there

In Spanish, demonstratives are not just markers of physical distance but also they take the listener's position into account. *Ese* is specifically used for things closer to the listener, which means that the system is not purely based on spatial distance but also on the interaction between speaker and listener. While a distance-oriented demonstrative system primarily relies on physical space and distance from the speaker as in (4) and (5).

(6) This book → Used when the book is near the speaker.

(7) That book → Used when the book is farther away from the speaker.

English demonstratives are based purely on spatial distance without considering the listener's location. This means the focus is on the object, and the listener's position does not cause any changes on demonstrative choice, the only relevant factor is how far the object is from the speaker. In this research, I will examine native Algerian Arabic speakers' use of demonstratives to determine if their language system aligns more closely with a distance-oriented system, like English, or a person-oriented system, like Spanish.

Therefore, I summarize the questions that are addressed specifically in this study as follows:

- To what extent do interactive factors such as shared attention, listener location, and object placement influence demonstrative choice in Algerian Arabic?
- How do demonstratives function in Algerian Arabic in terms of semantic and pragmatic features?
- What role does the listener's position play in demonstrative selection in Algerian Arabic?

Many studies have examined demonstratives in well-documented languages such as English and Spanish (e.g., Rubio-Fernandez, 2022; Zaki, 2011; Levinson, 2006). However, research on Arabic varieties, particularly Algerian Arabic, remains limited. This study aims to fill a critical gap in linguistics by introducing the Algerian Arabic demonstrative system, investigating how demonstratives function in this dialect, and providing a fresh perspective on deixis. Additionally, comparing Algerian Arabic to other languages enhances the richness of

this study. Therefore, this research contributes to the fields of semantics and pragmatics while offering new insights into the diversity of demonstrative systems across different languages.

1.2 Data

This study focuses on demonstratives found in Algerian Arabic. The findings present not only evidence of demonstrative selection choices but also an insight into how interactive factors, such as the listener's position or joint attention, affect the choice between demonstratives. A questionnaire was designed, based on Rubio-Fernandez (2022), to investigate how these factors are involved in demonstrative choice in different contexts, mainly focusing on the spatial reference and the relationship between the speaker and listener.

Participants engaged in a fill-in-the-gap task in which they read sentences with a missing demonstrative, and were asked to choose the appropriate demonstrative form based on the context provided. This kind of task usually aims to capture natural, context-dependent responses rather than strictly adhering to prescriptive grammar rules. Also, three specific questions were added to gather insights on participants' reasoning behind their choices, focusing on the roles of listener position and object placement (distance).

The collected data were organized into frequency data and visualized in graphs, illustrating the usage of *"ha:dha/ ha:dhi"* (this) and *"ha:dhak/ ha:dhik"* (that) in various contexts. These visual representations offered a clear overview of how demonstratives were selected in different scenarios, revealing patterns related to spatial distance, the role of the listener, and shared attention. To provide a comparative perspective and address the main focus of this study, the data collected from Algerian Arabic were analyzed alongside findings

from Rubio-Fernandez's (2022) first experiment regarding demonstratives in English and Spanish.

1.3 Structure of the thesis

The dissertation consists of six chapters. In chapter 1, I presented the objectives of this study and outline the main issues and the proposed semantic analyses for demonstratives. The rest of the thesis discusses the suggested analysis in more detail.

Chapter 2 reviews previous research on the interpretation of demonstratives. First, it summarizes earlier analyses of demonstratives in both English and Standard Arabic to establish a strong foundation for the following sections from a lexical-semantic perspective. Second, it narrows the discussion to cognitive-pragmatic accounts of demonstratives, focusing on the typological approach proposed by scholars such as Diessel (1999, 2006), Levinson (2006, 2018), and Hassan (1995). I explore the various types, functions, and uses of demonstratives. I also investigate cognitive approaches by highlighting the role of shared attention and distance as key factors in the use of demonstratives. Furthermore, I examine how interactive elements such as gaze direction, the listener's position, and the communicative context impact the use of demonstratives.

Chapter 3 introduces three types of demonstrative systems: distance-oriented, person-oriented, and hybrid systems. It first examines distance-oriented systems, which categorize demonstratives based on spatial proximity to the speaker. It then explores person-oriented systems, where demonstrative choice is influenced by the listener's position and interactional context. Finally, it discusses an interesting mixture of both notions mentioned, the hybrid

systems that combine elements of both approaches, demonstrating how languages may integrate multiple factors in demonstrative selection.

Chapter 4 presents an introduction to Algerian Arabic. I begin this chapter with an introduction of its historical development in which I provide a view on the influence of other languages, particularly French, on its structure. I explore the types, uses, and functions of demonstratives in this dialect, such as *ha:dha* (this, masculine singular), *ha:dhi* (this, feminine singular), and *ha:dhu* (these, plural). I examine how these expressions function in everyday conversations and how speakers use them as a referring expression to refer to objects, people, and abstract concepts. At last, I discuss how demonstrative choice can be influenced by other cognitive factors such as context and speaker intention, and also interactive factors, gestures, and shared attention as an example.

Chapter 5 outlines the methodological framework of the study which replicates Rubio-Fernandez's (2022) first experiment on demonstratives in English and Spanish. This chapter explains the research design, participant selection, and materials used in the experiment. It also explains the procedures followed to collect and analyze data on Algerian Arabic demonstrative choice, providing insights into how the study was conducted. The data also were compared to the findings of Rubio-Fernandez (2022) to address the main question of the study "does Algerian Arabic have a person-oriented system or a distance-oriented system?" The chapter also presents the results of the experiment, followed by a discussion of key findings and their implications. I address the study's limitations as well, acknowledging factors that may have influenced the outcomes.

Finally, Chapter 6 provides a summary of the results achieved in this study and makes some suggestions for future work.

Chapter 2 : Previous studies

2.1 Reference

This study explores the semantic, pragmatic, and cultural functions of demonstratives as referring expressions through a comparative analysis of English, Modern Standard Arabic (MSA), and Algerian Arabic (ALG) to be introduced later. It examines how these expressions operate within and across languages, focusing on their roles in communication and meaning-making. Overall, the discussion begins with an overview about demonstratives from a cross-linguistic perspective. The study includes the examination of how demonstratives encode spatial, temporal, and contextual relationships, as well as their role in discourse management and conversational dynamics. In addition, I give particular attention to their context-sensitive and indexical nature, by exploring how they depend on situational factors and shared knowledge between interlocutors. Then, I narrow the analysis of its scope to English and Modern Standard Arabic (MSA), highlighting key similarities and differences in their demonstrative systems. Thus, this section offers a foundational understanding of demonstrative systems in English, MSA, and beyond, bridging linguistic, cognitive, and sociocultural dimensions. These aspects will be elaborated further for each language in the following sections (see §2.1, §2.2).

The concept of reference can be seen as the most straightforward linguistic representation of the connection between language and the external world. Similarly, deixis can be regarded as the relationship between language and its context. Linguists have emphasized demonstratives' complexity, describing them as "one of the great puzzles of linguistic science" (Enfield 2003: 82). Studies concerned in such expressions have often concentrated on their role as referring expressions, due to their nature. The term "deixis" comes from the Greek word δείξις, which means "pointing." It involves using specific

linguistic elements to position entities in spatial, temporal, social, or discursive contexts. Additionally, these linguistic elements, known as deictic expressions, are words or phrases whose interpretation relies on the immediate context of the utterance as explained by Levinson (1983: 54). Examples of deictic expressions include pronouns (e.g., *I, you*), demonstratives (e.g., *this, that*), temporal adverbs (e.g., *now, then*), and spatial adverbs (e.g., *here, there*). For instance:

(8) Please put the book *there*.

The adverb "*there*" depends on the physical location being referenced (spatial deixis).

(9) I'll see you *tomorrow*.

The meaning of "*tomorrow*" hinges on the time of utterance (temporal deixis).

(10) *She* is coming to the party.

The referent of "*she*" depends on the participants in the conversation (person deixis).

Likewise, Fillmore (1997) identifies five types of deixis: person deixis, place deixis, time deixis, discourse deixis, and social deixis. In Arabic, Hassan's (1995: 338) study on demonstratives claims that these expressions can refer to a wide range of entities, they do not have an inherent or specific meaning on their own. This idea means that demonstratives are semantically flexible, they rely heavily on external factors as Levinson (1983) emphasizes the meaning of such expressions becomes clear only when they are paired with physical pointing gestures or contextual information. Moreover, several scholars have observed that deictic expressions are not always used to refer to elements within the immediate physical or speech situation. Instead, they can extend their reference to a variety of contexts. For instance, deictic

terms can point to an abstract or a metaphorical concept (Levinson, 1983). For example, when a speaker says *this problem* or *that idea,* which refers to notions discussed in the discourse rather than physical objects. Also, temporal deixis, such as *then* or *soon*, may refer to moments in the distant past or future rather than the current time frame.

The following sections introduce the basic uses and functions of demonstratives in English and MSA.

2.2 Demonstratives in English

Demonstratives are mostly studied as deictic expressions; it means that they are mainly linked to the speech-act situation. Deictic expressions refer to "spatio-temporal co-ordinates of the act of utterance," as described by Lyons (1977: 637). Fillmore (1997) defined proximal deixis as expressions that indicate closeness to the speaker, such as *this* and *here,* which anchor meaning to the speaker's immediate spatial context. Distal deixis, by contrast, refers to entities or locations perceived as farther away, represented by terms like *that* and *there.* Lyons (1977) highlighted that demonstratives do more than merely mark spatial relationships; they situate entities within a communicative framework by signaling accessibility and relevance to the speaker and listener. For example, *this* implies that an object is not only physically closer but also cognitively or contextually more salient.

The English demonstrative two-term system is relatively simple. Kemmerer (1999: 47) notes that while all languages have spatial demonstratives, "there is a variation in the number of distinctions that languages make with respect to the degree of remoteness of entities from the deictic center." The deictic center, also known as the origo that serves as a reference point relative to which deictic expressions are interpreted (Bühler, 1934), this center aligns with the speaker's position in time and space at the moment of utterance. In English, demonstratives

such as *this* and *that* rely on the deictic center to indicate spatial proximity or distance from the speaker. For example:

(11) *This* book is on the table

This is used to refer to objects or entities that are near the speaker, in this example, the proximity of the book to the speaker is central to the interpretation of *this*.

(12) *That* book is on the shelf

That is used to refer to objects or entities that are farther away from the speaker, in (5), the distance between the book and the speaker determines the use of *that*.

Thus, English demonstratives are defined not only by their semantic distinctions. Halliday and Hasan (1976: 60) identify three key distinctions in the English demonstrative system, semantical feature, distinguishing between proximal and distal; grammatical feature, differentiating between singular and plural; and syntactical feature, distinguishing between their use as modifiers or as heads (pronouns)[3], Consider the following examples:

(13) *That* is a beautiful painting.

(14) *These* apples are fresh.

In (13) *that* is a distal demonstrative, indicating something farther from the speaker, and functions as a pronoun (head). While, *these* in (14) is a proximal demonstrative, referring to multiple apples near the speaker, and it serves as a modifier within the noun phrase.

[3] Halliday and Hasan (1976: 37) propose a distinct and more expansive classification of referring expressions in English. They identify three categories of reference: personal (which includes personal and possessive pronouns), demonstrative (which encompasses demonstratives, locatives, and the definite article), and comparative (which covers certain comparative adjectives, quantifiers, and adjuncts.

2.3 Demonstratives in Arabic

The earliest works in Arabic concerning demonstratives discuss their various uses and functions; they are based on examples drawn from classical poetry or the Qur'an. Just like English, Arabic uses demonstratives to establish spatial, temporal, and discourse-based relationships. In Arabic, demonstratives are called ‘asma: al-isha:rah’[4], meaning names of pointing or indication’. They are categorized based on number, gender, and proximity (Ryding, 2005). Unlike English, which mainly distinguishes between *this/these* (for proximal) and *that/those* (for distal), Arabic demonstratives are more morphologically complex.

The following table illustrates demonstrative forms in MSA:

Number	**Gender**	**Case**	**Proximal**	**Distal**
Singular	M		Ha:dha:	dha:lika/dha:ka[5]
Singular	F		Ha:dhihi	tilka
Dual	M	Nom	Ha:dha:ni	dha:nika
Dual	M	Acc/Gen	Ha:dhayni	dhaynika
Dual	F	Nom	Ha:ta:ni	Ta:nika
Dual	F	Acc/Gen	Ha:tayni	taynika
Plural	M/F		Ha:ʔula:ʔi	ʔu:la:ʔika

Table 1: Demonstrative forms in MSA

As illustrated in the table, demonstratives in Modern Standard Arabic (MSA) are morphologically constructed using the base demonstrative *dhaa*[6], which is combined with additional morphemes to create compound proximal and distal forms. Most Arabic grammar books classify demonstratives into two primary categories (e.g., Hassan, 1995). The first

[4] أسماء الإشارة

[5] The demonstrative ða:ka can refer to medial distance. Since it is rarely used in such case in MSA, it is not mentioned in this study.

[6] This deictic "dhaa" can funtion by itself as a demonstrative.

category considers the referent in terms of number (singular, dual, plural) and gender (masculine, feminine, and inanimate). The second category focuses on the referent's distance, distinguishing between proximal, medial, and distal forms. Medial forms occupy an intermediate position; often they refer to entities that are neither close to the speaker nor far away (Diessel, 1999). For example, Spanish has a three-terms system for demonstratives, it includes medial demonstratives in its system with *este (proximal), ese (medial), and aquel (distal).* Hassan (1995: 322) notes that the perception of distance is subjective and depends on the speaker's judgment, influenced by interactive factors and the relationship between the listener and the speaker. Hassan (1995: 236) explains that:

["Upon choosing a demonstrative we must know first the state of the referent in terms of being singular, dual or plural, masculine or feminine, animate or inanimate, then we know secondly its state in terms of being near, medial or far"][7]

In Arabic, it is a fact that the demonstrative precedes its noun, which is marked as grammatically definite by adding the definite article, as shown in example (15). When it is used as a pronoun (16), the deictic demonstrative is often accompanied by a pointing gesture. In examples (17) and (18), the demonstratives function anaphorically (referring back to a previously mentioned noun) and as discourse deixis (referring back to a previously mentioned non-nominal entity), respectively.

(15) هذا القلم جميل. [demonstrative determiner]

hadhaa 'al-qalam jameel

this(mas) the-pen beautiful

This pen is beautiful.

[7] عند اختيار اسم من أسماء الإشارة لا بد أن نعرف أولا :حالة المشار إليه من ناحية: "إفراده، أو: تثنيته، أو: جمعه" و"تذكيره، أوتأنيثه" "عقله، وعدم عقله" ثم نعرف ثانيًا: حالته من ناحية: "قربه، توسطه، أوبعده."

(16) هذا قلم جميل [demonstrative pronoun]

hadhaa qalam jameel

this (mas) pen beautiful

This is a beautiful pen.

(17) *ظهر مقال جديد في المجلة. هذا المقال يناقش تغير المناخ* [anaphoric]

Dhahara maqaal jadiid fii al-majallah. haadhaa

Appear-it(past) article new in the-magazine this(mas)

al-maqaal yunaaqiš taghayyur al-munaakh.

the-article discuss-it(pres) the-change the-climate

A new article appeared in the magazine. *This article* discusses climate change.

(18) المقال يناقش تغير المناخ، وهذا يعني أنه مهم [discourse deictic]

Al-maqaal yunaaqish taghayyur al-munaakh wa haadhaa

The-article discuss-it(pres) the-change the-climate and-this(mas)

ya3nii annahu muhimm.

mean-it(pres) that-it important.

The article discusses climate change, and this means it is important.

While in some cases, in contrast to English, as it was explained by Zaki (2011) about Arabic demonstrative, such terms can also follow the head noun if the noun is already defined. This occurs when the head noun is defined by a genitive construction, as in (19), or when the head noun is inherently defined by being a proper noun, as in (20).

(19) هل شاهدت فيلم الأكشن هذا؟ [noun + demonstrative]

Hal šaahadta film al-'akshan haadhaa?

Did watch-you(past) film the-action this(mas)

Did you watch this action movie?

(20) الغريب أن خالد هذا لا يحب الموسيقى [proper noun + demonstrative]

Al-ghariib 'anna Khaalid haadhaa laa yuḥibbu

The-strange that Khaalid this(mas) not like-he(pres)

al-muusiiqaa.

the-music.

The strange thing is that this Khaalid does not like music.

2.4 Basic categories of deixis

Deictic expressions sometimes occur beyond their typical function, such as referencing prior discourse anaphorically or being used in non-specific contexts (Levinson, 2006: 111). When they are used deictically, these expressions can be anchored to the speaker's immediate origo (reference point) or shifted to an alternative origo[8] (presented by Bühler, 1934), Such terms are often adjusted through gestures while preserving their deictic purpose. Deictic expressions may rely on physical gestures to clarify their meaning (gestural use) or depend entirely on the linguistic context to convey meaning (non-gestural use). Furthermore, languages exhibit remarkable diversity in how they encode deictic categories like person, place, and time through grammatical distinctions (Levinson, 1983: 54). These distinctions typically revolve around the speaker, the spatial and temporal context of the utterance, and the role of the addressee. While such reference points represent conceptual universals, their grammatical

[8] Alternative origo refers to a shift in the reference point (or "origo") in communication — usually from the speaker's perspective to someone else's (Bühler, 1934).

realization varies significantly (Levinson, 2006: 111). As an evidence, not all languages employ pronouns, tense markers, contrasting demonstratives, or other commonly recognized deictic forms. While deictic categories such as person, place, and time are universally present at a conceptual level, their grammatical realization is far from consistent across languages. Regarding the use of demonstratives, there is a distinction between exophoric (situational) uses and non-exophoric (non-situational) uses. Exophoric use is defined as pointing at an entity in the physical environment, such as when a speaker gestures to a visible object and says, *this is mine.* Non-exophoric use, on the other hand, relates to elements within the discourse context rather than the immediate physical environment. This includes references to something mentioned earlier (anaphoric reference) or something anticipated in the discourse (cataphoric reference). The demonstrative links to previously mentioned entities; discourse-deictic reference, which refers to propositions or events in the discourse; and recognitional use, where the demonstrative signals shared knowledge or familiarity between the speaker and listener (Diessel, 1999). For instance, in the sentence *that was a great story,* the demonstrative *that* here might indicate an anaphoric reference to a story previously told, or it could serve a discourse-deictic function by summarizing a broader discourse segment.

2.4.1 Person deixis

The grammatical category of "person" in deixis reflects the essential roles in communication, it represents the speaker (first person), the addressee (second person), and others (third person)[9] (Levinson, 2006: 112). Such roles are categorized as first, second, and third person, based on the involvement of the speaker (e.g., +S) and the addressee (e.g., +A) in a given

[9] A grammatical category that identifies participants in speech; typically first (speaker), second (addressee), and third (others).

context, with third persons (+O) representing those not directly participating in the dialogue[10]. The most interesting part is that person deixis is not fixed and can shift dynamically during the conversation, while *I* can turn into *you*, or *here* can change to *there*, all of these changes depend on the oriented perspective[11] to deliver a clear meaning. In fact, languages often encode these distinctions through pronouns or verb agreement, as seen in Arabic and English (see Table 2).

The following table illustrates person marking forms in MSA:

Person	Singular	Dual	Plural
1st person	أنا (anā) "I"	(no dual in 1st person)	نَحْنُ (naḥnu) "We"
2nd person	أَنْتَ (anta) "You" (M) أَنْتِ (anti) "You" (F)	أَنْتُمَا (antumā)"You two" (M/F) -	أَنْتُم (antum) "You" (M. PL.) أَنْتُنَّ (antunna) "You" (F. PL.)
3rd person	هُوَ (huwa) "He" هِيَ (hiya) "She"	هُمَا (humā) "They two" (M/F) -	هُمْ (hum) "They" (M. PL.) هُنَّ (hunna) "They" (F. PL.)

Table 2: Person marking forms in MSA

One aspect of person deixis that can be an issue here is the interplay between person and plurality. The pronoun *we* as an example, might seem to denote multiple speakers (+S), but its meaning can vary widely depending on the context. This pronoun *We* has the ability to signify +S + A, to refer only to the speaker and the addressee (21) or +S + A + O as seen in

[10] *+S, +A, +O*: Notation used to mark presence of Speaker (S), Addressee (A), and Others (O) in a communicative situation.

[11] The viewpoint from which deictic expressions like *I*, *you*, *here*, or *there* are anchored; it can shift during discourse.

(22), which includes other individuals beyond the immediate participants as discussed by Levinson (2006: 113).

(21) The context: a teacher speaking to her student during a private conversation.
We should focus on completing your project soon.

(22) The context: project manager addressing a team member about a group effort.
We have made a great progress on the project this week.

In (21) only the teacher (+S) and the student (+A) are involved in the focus or the action but (22) Includes the speaker (+S), the team member being addressed (+A), and other team members (+O). Thus, understanding this kind of issues helps to avoid ambiguity in the language used, and confirms that the flexibility of the concept of "person" in the language is more than a grammatical formality; it is a powerful tool for expressing complex social relationships and different perspectives.

2.4.2 Time deixis

It is widely known that time deixis, or temporal deixis, is a key concept in linguistics that examines how words indicate time based on utterance time. Levinson (1983: 73) reported that time deixis connects what the speaker is saying to when the event happened, usually through verb tenses or words related to time, and it seems that his theory makes it easier for us to understand this category of deixis. If we take a look at words such as *now, then, today, and yesterday,* we can realize that these types of words only make sense when you know the speaker's context (context-dependent) or it is impossible to determine the exact timing. Also, in Levinson's study on English deixis, he mentioned tenses, and how they can represent different parts of the time depending on the moment of the conversation. Tenses such as the simple present *I am eating* shows that the action is happening right now, while the simple past tense *I ate* shows that it already happened. Fillmore (1997), on the other hand, broadens the

scope of temporal deixis by arguing that deictic expressions do more than locate events in time. They also let speakers shift perspectives and navigate through different points in time while speaking, suggesting that time deixis are connected to other forms of deixis, like spatial and personal deixis.

(23) I'm leaving *now*.
(24) She called me *yesterday*.

In (16) and (17), without knowing the speaker's exact context, the timing of *now* and *yesterday* remains unclear, it also depends entirely on the speaker's reference point. Interestingly, not all languages use time deixis the same way. In English, "the most pervasive aspect of temporal deixis is tense", Levinson (2006: 114). By considering the function of the present tense which aligns the event with the current moment, and the past tense which indicates that the event has already occurred and finished. Consider examples (25) and (26).

(25) كتب
Kataba 3SG.mas.past
He wrote

(26) يكتب
Yaktubu 3SG.mas.pres
He writes/is writing

Although Arabic uses verb conjugations to express temporal deixis, it expresses them in a different way from English, due to its rich morphological system that allows Arabic to encode other aspects alongside tense, and this offers more detailed information about the state or completion of an action. For example, the difference between (25) in the past simple tense

and (26) in the present simple tense is not just about time, it is also concerned with the action if it is completed or still ongoing (Ryding, 2005: 64).

2.4.3 Spatial Deixis

Generally speaking, spatial deixis refer to the linguistic expressions and terms that anchor a statement to the physical space based on the speaker, listener, or a specific point of reference (Levinson, 2006: 116). It involves words and phrases that indicate location, direction, or proximity, words such as *here, there, this, and that*. This type of words is context-dependent, as the interpretation of such expressions relies on the physical or imagined spatial position of the interlocutors within a given situation (Fillmore, 1982). In Arabic and English specifically, deixis in these two languages shows fascinating contrasts that appears from the differences in their linguistic structure and cultural context. In English, demonstratives such as *this* and *that* typically are used depending on the cases of proximal-distal space, where the closeness or distance to the speaker plays a key role in determining which demonstrative can be used (Fillmore, 1982). Later on, Levinson (2006: 116) further elaborates on this, explaining how English demonstratives are primarily egocentric, meaning they are tied closely to the speaker's perspective and location. In comparison, Arabic presents a different system of spatial deixis. Arabic demonstratives, like *ha:dha:* (this) *and dha:lika* (that), not only signal proximity or distance but also reflect grammatical features such as gender, number, and case (Ryding, 2005).

The following examples illustrate how Arabic spatial deixis agrees with gender, as demonstrated in (27) and (28), and with number, as highlighted in (29), (30), and (31). We can also see that demonstratives reflect case through their endings when they modify nouns in dual or plural forms (see the examples below (32) and (33)).

(27) a. هذا ولد

ha:dha: walad

this(mas)-is a boy. **[Masculine. Proximal]**

This is a boy.

b. ذلك ولد

dha:lika walad

that(mas)-is a boy. **[Masculine. Distal]**

That is a boy.

(28) a. هذه بنت

ha:dhihi bint

this(fem)-is a girl. **[Feminine. proximal]**

This is a girl.

b. تلك بنت

tilka bint

that(fem)-is a girl. **[Feminine. Distal]**

That is a girl.

(29) a. هذا رجل

ha:dha: rajul

this(mas)-is a man. **[Singular. Proximal]**

This is a man.

b. ذلك رجل

dha:lika rajul **[Singular. distal]**

that(mas)-is a man.

That is a man.

(30) a. هذان رجلان

ha:dha:ni rajula:ni

these(mas)-are two men**.** **[Dual. Proximal]**

These are two men.

b. ذانك رجلان

dha:nika: rajula:ni

those(mas)-are two men. **[Dual. Distal]**

Those are two men.

(31) a. هؤلاء رجال

ha:ʔula:ʔi rija:l

these(mas)-are men. **[Plural. Proximal]**

These are men.

b. أولئك رجال

ʔu:la:ʔika rija:l

Those(mas)-are men. **[Plural. Distal]**

Those are men.

(32) a. هذان رجلان

ha:dha:ni rajula:ni

these(mas)-are two men. **[Nominative case. Proximal]**

These are two men.

b. ذانك رجلان

dha:nika: rajula:ni

those(mas)-are two men. **[Nominative case. Distal]**

Those are two men.

(33) a. رأيت هذين الولدين يلعبان في الحديقة

Ra-aytu ha:dhayni al-waladayn yal-aba:ni fi al-hadiqah

I-saw(past) these(mas) two boys playing in the garden.

I saw these two boys playing in the garden. **[Genitive/Accusative. Proximal]**

b. رأيت ذينك الولدين يقرآن كتاباً

Ra'aytu dha :nikayni al-waladayn yaqra'a:ni kita:ban

I-saw(past) those(mas) two boys reading a book.

I saw those two boys reading a book. **[Genitive/Accusative. Distal]**

2.4.4 Discourse deixis

Discourse deixis refers to linguistic expressions that point to elements within the discourse itself, such as previous or upcoming parts of the conversation or text. It is a concept explored by Fillmore (1982), who emphasized that the interpretation of these deictic terms is highly context-dependent, often relying on the speaker's intentions and the structure of the discourse[12]. Unlike spatial or temporal deixis, which refer to physical locations or times, discourse deixis functions within the boundaries of language and communication itself. For example, expressions such as *as I mentioned earlier, in the next chapter, or this is important* are inherently tied to the discourse they appear in. For instance:

(34) *This* is what I meant earlier

(35) We'll elaborate on *this* point later

Fillmore (1982) argues that discourse deixis highlights the interconnected nature of language, where speakers and listeners rely on shared situational and linguistic knowledge to track elements of the discourse. This aligns closely with Grice's (1975) Cooperative

[12] Structure of the discourse refers to how a text or conversation is organized, which helps determine what deictic expressions like "this point" or "as mentioned earlier" refer to.

Principle[13], particularly the Maxims of Relevance[14] and Quantity[15]. The Maxim of Relevance ensures that deictic terms referring to parts of the discourse *(e.g., this, that, here)* are meaningful within the ongoing conversation. The Maxim of Quantity emphasizes that the speaker provides enough information for the listener to identify the referent without unnecessary elaboration. In Arabic, discourse deixis operates in much the same way, using terms like *tha:lika* (that) or *ha:dha:* (this) to refer to previously mentioned or upcoming parts of the text or conversation.

2.4.5 Social deixis

"Social deixis involves the marking of social relationships in linguistics expressions, with direct or oblique reference to the social status or role of participants in the speech event" (Levinson, 2006: 119). This category is concerned with multiple aspects such as social structures, interpersonal dynamics, and cultural norms. Although the mechanisms and levels of complexity differ between Arabic and English, they both have social deixis in their systems. To explain more, social deixis encodes hierarchical relationships in Arabic, where pronouns indicate levels of formality, respect, and intimacy. In simple words, Arabic can demonstrate a clear distinction through the use of singular and plural forms in polite contexts. As an example, the pronoun *أنتم (you, plural)* can be used to show respect in a conversation while addressing a single individual of higher social status.

In contrast, Arabic speakers may use the informal *أنت (you, singular)* to address young people or friends. It is important to keep in mind that English does not have such a formal

[13] Grice's Cooperative Principle (1975) suggests that participants in a conversation typically work together, following implicit rules to communicate effectively and meaningfully.
[14] The Maxim of Relevance states that contributions to a conversation should be relevant to the topic.
[15] The Maxim of Quantity advises speakers to provide as much information as is needed—no more, no less.

system. Levinson (1983: 89) categorized social deixis into two types: relational and absolute. In simple words, relational social deixis encodes specific relationships between the speaker and addressee through titles, honorifics, or pronouns, while absolute social deixis type reflects social distinctions independent of such relationships, we can mention in such case terms to address royalty or religious figures, like *Your Majesty* in English or *Saːḥib al-Sumūw* (your majesty) in Arabic.

2.5 Cognitive Approaches

This part of the study examines the cognitive and social aspects of demonstratives, focusing on their roles in guiding attention, resolving ambiguity, and promoting shared understanding. Demonstratives are a universal aspect of language, but their meanings can vary significantly from one language to another. In multiple linguistic systems, demonstratives convey more than just physical distance; they can also express factors such as altitude, familiarity, position, reachability, or visibility of the referent, as perceived by either the speaker or the listener, or by both (Levinson, 2018). When it comes to social cognition, Fillmore's (1997) deictic theory frames demonstratives as deictic expressions. His interpretation relies heavily on contextual cues. For example, the physical distance between the speaker, listener, and referent.

Diessel (1999) further expands on this by emphasizing the cognitive-functional role of demonstratives, and also highlights the role of demonstratives in directing the listener's focus of attention within shared communicative contexts. Demonstratives can also function as key tools that help to structure interaction when they are used to introduce new topics or objects into a conversation or sometimes to maintain coherence in discourse. For example, in the context of storytelling, the speaker might say, *look at this,* while holding up a photograph, this act draws the listener's attention to the visual element and grinds the audience in a shared

referent point. Additionally, the function of demonstratives goes beyond spatial referencing as Diessel (1999) argues; they also operate as markers of discourse prominence, in order to help the speakers to emphasize certain elements over others. It is important to mention that demonstratives are often accompanied by a pointing gesture as a fact; this act is also a universal communicative device that may aid in establishing joint attention. For instance, pointing at an object while saying *that one* ensures alignment between verbal and non-verbal cues, reinforcing mutual understanding during a conversation.

2.5.1 Demonstratives as Attention Tools

Many current studies view demonstratives as tools for directing attention, which is a well-established point in cognitive linguistics. To address demonstratives from this perspective, I will discuss a cognitive approach. As discussed extensively by Diessel (2006), joint attention can be clearly defined as the ability of two individuals to focus on the same object or event while being aware of each other's attention. Demonstratives, such as *this and that* in English or *ha:dha* (this) *and dha:lika* (that) in Arabic, are not only spatial markers but also interactive and cognitive devices that guide interlocutors to a shared understanding of the referent. And since children learn demonstratives at a very early age, they learn how to use demonstratives to establish shared focus.

Enfield (2003) also argued that the use of demonstratives depends heavily on interactional context, such as shared knowledge and visual accessibility. For example, Spanish speakers may choose a specific demonstrative based on whether they believe the listener can see or identify the object addressed. Therefore, demonstratives simplify communication by reducing the cognitive load required to identify a referent because instead

of describing an object in detail, a speaker can use a demonstrative paired with pointing or eye-gazing to direct attention (Diessel, 2006). Consider the following example:

(36) *This* is my book.
(While pointing to a book nearby)

The demonstrative *this* quickly anchor the listener's attention to the intended object, eliminating ambiguity (Kendon, A. 2004: 205). Without such cues, the speaker would need to provide additional descriptive details to enable the listener to reach the object addressed. Obviously, from the previous points I discussed, demonstratives are particularly effective in resolving ambiguity in communication. See example (37):

(37) In a classroom setting, a teacher might say:
This diagram shows the process.

When the teacher paired the demonstrative with a visual cue *(e.g., pointing to the diagram),* they ensure that all students focus on the same referent, enhancing comprehension, and the use of demonstratives mainly helps in avoiding ambiguity and unnecessary detailed explanations[16]. As it is examined in Kendon's (2004) study, gestures and speech are not independent modalities, they work side by side in a coordinated relation to convey meaning, and reinforce one another in the communicative process. In fact, gestures serve as non-verbal aids to resolve ambiguity in the interpretation of demonstratives (Kendon, 2004: 205). See above for example, a speaker may use *this* while pointing to an object nearby, or *that* with a gesture toward a distant referent. Distance is one of the main elements that influence both demonstratives' cognitive and communicative functions. As Diessel (1999) explains,

[16] See Sidnell & Enfield (2017).

demonstratives typically encode spatial distinctions[17], proximal terms like *this* refer to objects close to the speaker, and distal terms like *that* indicate objects that are farther away. Therefore, pointing gestures reinforce a visual representation of these spatial distinctions, which allows the ability to link between linguistic expressions and the physical environment in the real world.

[17] Spatial distinctions refers to how language differentiates between locations or distances in space—particularly in relation to the speaker's position.

Chapter 3 : Spatial and Interactional Factors in Demonstrative Systems

The traditional classification of demonstratives largely adheres to a distance-based framework (Diessel, 1999; Levinson, 2018). However, research has shown that demonstrative selection is not exclusively determined by physical proximity but also by interactive factors and cognitive influences such as Cifuentes-Honrubia (1989). Languages across the world have different demonstrative structures, but all of them belong to one of the three main categories: distance-oriented, person-oriented, and hybrid systems. Each system presents unique mechanisms by which speakers encode spatial and interactive factors relations into their linguistic choices.

In the next sections, I will explore each of these systems in detail by emphasizing their distinctive characteristics, including the principles that govern their use.

3.1 Distance-Oriented Demonstrative Systems

Distance-oriented systems are the most common category among languages. It categorizes demonstratives based on the physical distance relative to the speaker or interlocutors. For instance, English exemplifies a binary system in which demonstratives are determined by spatial relationships. In this case, *this* refers to objects near the speaker, whereas *that* denotes objects farther away. Such distinctions are largely based on observable spatial positioning[18] rather than interactional (between the speaker and the listener) or attentional factors. Diessel (1999) highlights that these systems are among the most common cross-linguistically as they provide a straightforward means of reference by anchoring objects within a spatial framework centered on the speaker "the origo". Similarly, Levinson (2006) notes that English

[18] The physical, perceptible location of objects in space, typically judged relative to the speaker's bodily position, rather than based on social interaction or shared attention.

demonstratives function primarily with respect to the origo, or the speaker's reference point, rather than the listener's location or perspective. In practical use, distance-oriented demonstratives operate in a range of communicative contexts where spatial relationships are evident (Levinson, 2018). For example, if a speaker is holding a book, they would naturally refer to it as *this book* due to its immediate proximity. However, if the book is placed on a distant table, it would be referred to as *that book*, regardless of where the listener is positioned. This system also applies in conversational settings, where a speaker might distinguish between nearby and distant objects for clarity. For example, in a classroom, a teacher holding a textbook might say, *"This book is required for the course,"* while pointing to another book on a far shelf, they might state, *"That book is supplementary reading."*

Although distance-oriented demonstrative systems are generally straightforward, their application can become more complex in dynamic situations where objects shift locations or when multiple reference points come into play. In a typical scenario, the demonstrative choice is based on the speaker's immediate perception of distance (Levinson, 2006). However, when an object moves from one person to another or changes position within a space, the reference point can shift, altering the appropriate demonstrative. For example, if a speaker is holding a book, they naturally refer to it as *this book* due to its proximity. However, if they hand it to another person, the same book may now be referred to as *that book* because it is no longer near the original speaker "the origo**"** (Bühler, 1934).

3.2 Person-Oriented Demonstrative Systems

Unlike distance-based systems, person-oriented systems focus on the interactional roles of the speaker, the hearer, and the third person. Demonstratives in this system are selected based on the perspective of interlocutors rather than objective spatial distance (Cifuentes-Honrubia,

1989); Spanish exemplifies this system, since the language requires speakers to consider not only the absolute location of a referent but also its position relative to the interlocutor.

See the following table:

Proximity	***Masculine Singular***	***Feminine Singular***	***Masculine Plural***	***Feminine Plural***	***Neuter***
Near (this/these)	Este This	Esta this	Estos These	Estas These	Esto This
Medium distance (that/those)	Ese That	Esa That	Esos Those	Esas those	Eso That
Far (that/those over there)	Aquel That	Aquella That	Aquellos Those	Aquellas Those	Aquello That

Table 3: Demonstrative forms in Spanish.

For instance, if a book is near the listener but far from the speaker, the speaker would refer to it as *ese libro* rather than *aquel libro*, as the latter implies distance from both the speaker and the listener. This distinction becomes particularly relevant in situations where the listener's location determines demonstrative choice. If two people are conversing across a room and one of them is standing near a table with a book on it, the distant speaker would say *ese libro* because the book is closer to the listener, even though it remains far from the speaker. However, if the book is located on a bookshelf on the opposite side of the room, far from both parties, the speaker would use *aquel libro* to indicate that it is distant from everyone involved.

Levinson (2018) describes such systems as interactionally anchored, which means they take into account factors such as discourse roles, shared attention, and cognitive accessibility. Cifuentes-Honrubia (1989) further emphasizes that in languages like Spanish, demonstrative choice extends beyond the spatial relationships to include pragmatic and discourse-related factors. He argues that demonstratives function as deictic markers that structure the flow of

conversation. According to his findings, these expressions help speakers to manage information by distinguishing between given and new referents either for object, people or any referent. For example, an object that has already been introduced in discourse may be referred to with a more distal demonstrative *aquel*, which signals that it is backgrounded or less immediately relevant. Conversely, a newly introduced or emphasized referent may assign a more proximal demonstrative *este*, regardless of its physical distance.

3.3 Hybrid Demonstrative Systems

This category incorporates elements of both spatial and person-oriented systems, which demonstrate that demonstrative selection is often flexible, shaped by both the speaker's intended meaning and the shared knowledge of interlocutors. Many languages do not fit or do not share the exact features of either category, and instead exhibit hybrid systems that combine elements of both distance-based and interactional deixis. As an example, the Japanese system employs a three-way distinction *kore* ("this" near the speaker), *sore* ("that" near the listener), *are* ("that" far from both speaker and listener). Demonstrative choice in this language is influenced by both distance and the relationship between speaker and listener, which means, such languages share multiple features from both notions. To conclude, as Diessel (1999) and Levinson (2018) suggest, demonstrative choice is not solely a matter of spatial deixis but also reflects deeper cognitive and communicative mechanisms shaped by linguistic and cultural variation.

Chapter 4 : Algerian Arabic

4.1 Overview of the dialect

Arabic speakers have Arabic dialects or vernacular as their mother tongues. These dialects can be stratified in two big families of dialects: the Western group (the Maghreb) or the North African group and the Eastern group (the Mashriq). The Algerian dialect 'ALG', is also known in terms such as دارجة 'da:rjaħ' or 'جزايري' 'jazaAyriy' or 'دزيري' 'dziyriy', all of these expressions simply mean "Algerian" (Saadane & Habash, 2015). This dialect has a unique linguistic system created in centuries of cultural interactions and historical shifts in the language. It stands apart from Modern Standard Arabic (MSA), the official language of Algeria, when it comes to phonology, morphology, syntax, and lexicon. As a spoken dialect, Algerian Arabic has undergone significant transformations, it reflects the influences from Berber, Turkish, Spanish, Italian, and most prominently, French. "The Algerian population speaks also Berber but with different ratios: Algerian arabic is used by 70 to 80% of the population however; the Berber language is the mother tongue of 25% to 30% of population" (Saadane & Habash, 2015: 70).

Algerian Arabic does not have a uniformed linguistic system, it consists of multiple distinct varieties (Harrat, Meftouh, Abbas, Hidouci, & Smaïli, 2016), these varieties can be categorized into four main groups: the first group (i) Oranais, which is spoken in the western regions of Algeria, extending from the Moroccan border to the area around Ténès; (ii) Algérois, prevalent in the central parts of Algeria, including Algiers and extending to Béjaia, where it is widely used; (iii) Rural, primarily spoken in eastern areas such as Constantine, Annaba, and Sétif; and (iv) Sahara, which represents the dialect of the southern Algerian population. Algerian Arabic is commonly found in various aspects of daily life, mainly in media, social interactions, internet communication, and SMS. However, it is absent from the

official contexts or in the formal system in general, so that reading and writing are conducted in Modern Standard Arabic or other formal languages.

4.2 The Influence of French on Algerian Arabic

The French colonial period from 1830 to 1962 in Algeria highly impacted its language, this period introduced the French vocabulary into the Algerian Arabic system, where many French terms were integrated into the daily conversations of the Algerians. For example, words like "*lycée*" (high school) and "*quartier*" (neighborhood) are used in this dialect in their original forms, but often without their phonological adaptation (Saadane & Habash, 2019: 71).

Beyond vocabulary, the syntactic structures and pronunciation patterns in Algerian Arabic dialect are also impacted by the French system. For example, French verbs like "*garer*" “to park” have been incorporated into the dialect, it often goes under few modifications in order to align with the Arabic conjugation rules, such as the word *'garet'* with ‘t’ as a female gender marker (she parked). Also, Benrabah's (2013) study highlights how French is used as a language of prestige, especially in positions such as education, administration, and media. This linguistic hybridity reflects what Bourdieu (1991) calls "symbolic power," where French functions as a marker of modernity and education. This influence of French on Algerian Arabic has shaped not only its vocabulary but also its grammatical structures, including the use of demonstratives.

The following table shows French demonstratives.

Type	Singular	Plural
Proximal (This/These)	*ce* (masculine)	ces
Distal (That/Those)	*cette* (feminine) *ce* (masculine)	ces...-là
Neutral	*cette* (feminine) Ça	-

Table 4: French demonstratives.

For instance, French demonstratives such as *ce* (this), *ça* (that), and *ces* (these) are sometimes borrowed directly (38) or influence the usage of Arabic equivalents, creating a hybridized system of reference in urban speech as in (39) and (40). (See Harrat, Meftouh, Abbas, Hidouci, & Smaïli (2016) for more details about the French influence on the Algerian Arabic.)

(38) Donne-moi ça
give-me this(neu)
Give me this

(39) Ces livres ملاح
ces livres mla:h
these(mas) books nice
These books are nice.

(40) Cette table راهي جديدة
cette ṭable ra:hi jdi:da.
this(fem) table is(pres) new
This table is new

4.3 Demonstratives in Algerian Arabic

The vocabulary of the Algerian dialect is derived from MSA, even though it has phonological changes and notable variations in pronunciation, such a system includes the omission or modification of certain letters from original French or MSA words, in MSA particularly the

Hamza changes[19] (Harrat, Meftouh, Abbas, Hidouci & Smaïli, 2016). The Algerian dialect has a unique system, particularly regarding pronouns. Notably, the dual form does not exist in Algerian Arabic; there are no equivalents for Arabic pronouns 'أنتما' '*antuma:'* (second person, dual) and 'هما' '*huma:'* (third person, dual). Similarly, personal pronouns relative to feminine plural 'أنتنَّ' '*antunna'* and 'هنَّ' '*hunna'* related to second and third person respectively do not exist. (See table 4).

	Singular		Plural
	Female	Masculine	Fem & Mas
1st person	أنا (*ana*) I	أنا (*ana*) I	احنا (*eḥna:*) We
2nd person	انتِ (*nti*) You	انتَ (*nta*) You	انتوما (*ntu:ma*) You
3rd person	هي (*hia*) She	هو (*hu*) He	هوما (*humma*) They

Table 5: Personal pronouns of Algerian dialect.

In fact, Algerian Arabic dialect is an inflected language like MSA. Words in this language are modified to express different grammatical categories such as tense, voice, person, number, and gender. (Harrat, Meftouh, Abbas, Hidouci & Smaïl, 2016). Take a look at demonstratives below (Table 5).

Singular		**Plural**
Female	Masculine	Fem & Mas
هادي (ha:dhi)	هادا (ha:dha)	هادو (ha:dhu:)
This	This	These
هاديك (ha:dhik)	هاداك (ha:dha:k)	هادوك (ha:dhok)
That	That	Those

Table 6: Demonstrative pronouns of Algiers dialect.

[19] The Hamza is a letter in the Arabic alphabet, representing the glottal stop.

Standard Arabic and Algerian Arabic differ significantly in their demonstrative systems. In Standard Arabic, demonstratives are highly inflected for number, gender, and case, with forms such as *ha:dha:* (this, masculine singular), *ha:dhihi* (this, feminine singular), and *ha:ʔula:ʔi* (these, plural), which also exhibit variations for nominative, accusative, and genitive cases. This system follows a strict grammatical framework that requires agreement with the noun in both definiteness and syntactic role, as illustrated in classical texts like the Qur'an or formal writing. In contrast, Algerian Arabic employs a simplified demonstrative system that reflects colloquial and regional variations. For example, demonstratives such as *ha:dha* (this, masculine singular), *ha:dhi* (this, feminine singular), and *ha:dhu* (these, plural) lack case distinctions and are used in more flexible syntactic positions.

The examples from (41) to (43) show how demonstratives function in such a dialect in the proximal use, while (44) till (46) are concerned with long distal distance.

(41) هاذا الكتاب
ha:dha: l-kta:b
this(mas) the-book
This book (masculine singular).

(42) هاذي طابلة
ha:dhi: ṭ-ṭa:bla
this(fem) table
This table (feminine singular).

(43) *هذو الناس*
hdhau: ‘al-nna:s

these the-people
These people (plural).

(44) *هذاك الراجل*
hadha:k ‘al-ra:jel
that(mas) man

That man (masculine singular).

(45) هذيك المرا

hadhi:k ‘al-mra

that(fem) the-woman

That woman (feminine singular).

(46) هذوك ناس

hadhu:k nna:s

those people

Those people (plural).

Chapter 5 : Methodology

5.1 Research Design

Previous research on demonstratives has often relied on questionnaire-based studies, where participants are asked to describe objects in various spatial contexts or choose demonstratives for pre-defined scenarios. These studies typically focus on whether speakers prioritize physical distance (proximal vs. distal) or interpersonal factors (the relationship between the speaker and the addressee) when selecting demonstratives. For example, Coventry et al. (2008) conducted a questionnaire study for English and Spanish speakers. The findings shows that while both language groups primarily used distance-based distinctions, Spanish speakers demonstrated a greater sensitivity to the shared perspective of the speaker and listener. Similarly, Cifuentes-Honrubia (1989) investigated on demonstrative use in Spanish; one of the main findings shows that native speakers of Spanish often use demonstratives to highlight referential salience rather than just distance. More recently, Rubio-Fernandez (2022) conducted an experimental study that compared English and Spanish systems. Her work revealed that demonstrative choice is influenced by both spatial relationships and the attentional alignment between speaker and listener depending on the language used; in other terms cognitive factors also have a certain influence in this choice.

This study adopts an experimental approach. The design ensures controlled manipulation of variables, which may affect demonstrative selection, while allowing for efficient data collection from a broad sample of Algerian Arabic. Additionally, it enables direct comparability with previous experimental work, particularly those with data presented in graphs, such as Rubio-Fernandez (2022).

5.2 Participants

The study recruited 83 native speakers of Algerian Arabic (Darija**)** as participants. Females constituted 72% of the sample**,** reflecting their greater availability during the data collection period. In terms of age, 59.5% of participants were between 22 and 23 years old, ensuring a relatively homogeneous sample in terms of cognitive and linguistic maturity, while the remaining participants came from various other age groups.

Age Range	Total participants	Female	Male
17-19	7	1	6
20-25	65	45	17
26-30	10	6	4
31-35	2	1	1
35-39	2	-	2

Table 7: Age and Gender Distribution of Participants.

To ensure dialectal diversity, participants were randomly selected from various regions of Algeria. However, 56.8% of the participants were from the eastern areas particularly Sétif city**,** while the remaining individuals represented different areas across the country. Despite the predominance of younger speakers, efforts were made to include individuals from diverse educational and social backgrounds to capture a broad spectrum of demonstrative usage patterns. Additionally, many participants reported proficiency in French and English**.**

5.3 Materials

The materials used in this experiment were adapted from Rubio-Fernandez (2022)[20], which investigated demonstrative choice in English and Spanish. All the images have been taken from Rubio-Fernandez (2022), and modified for the purposes of the study reported here, i.e.

[20] See Rubio-Fernandez (2022) for more details.

methodology was adopted to Algerian Arabic, with necessary adjustments to accommodate linguistic and cultural differences.

Sixteen different visual displays were adopted, each illustrating a boy and a girl seated on opposite sides of a table (see **Figure 1** for an example). In these displays, the speaker, labeled as "You," represented the participant, while the listener, labeled as "Her," represented the participant's friend. To create a naturalistic scenario, a cover story was provided: participants were asked to imagine that they were moving houses and had asked a friend for help in packing items into boxes.

In each trial, four different objects were placed on the table, and the participant had to request one of them. The target object was the one the speaker was looking at, indicated by their body orientation and two white gaze lines connecting their eyes to the object. The speaker's position remained constant in the upper right corner of the table (Position 0), while the target object could appear in one of four positions along the table (Positions 0–3, moving left). The listener's position also changed across these four locations, creating a fully balanced 4×4 design based on object and listener positions.

Figure 1: Algerian Arabic version of a sample display from the online task used in the experiment.

Participants imagined themselves in the position of the speaker and completed the request in the speech bubble ('Now I need…') by selecting one of two demonstrative pronouns in Algerian Arabic: with proximal demonstratives *ha:dha / ha:dhi* (this one) or distal demonstratives *ha:dhak / ha:dhik* (that one). Upon completion of this task, they were required to respond to several questions regarding it.

The experiment consisted of 16 trials and few questions related to the task, it lasted approximately 3-5 minutes. All data were collected using an online questionnaire designed in Google Forms.

5.4 Results

The primary aim of this study was to determine whether the choice between demonstratives in Algerian Arabic are predominantly guided by the physical distance between the speaker and the referent, or by the relationship or the interaction between the speaker and the listener. This section presents the findings from the current study on demonstratives in Algerian Arabic and compares them later with the results reported by Rubio Fernandez (2022) for English and Spanish. The analysis focuses on the distribution, usage patterns, and potential factors influencing demonstrative selection in the three languages.

Object position 0

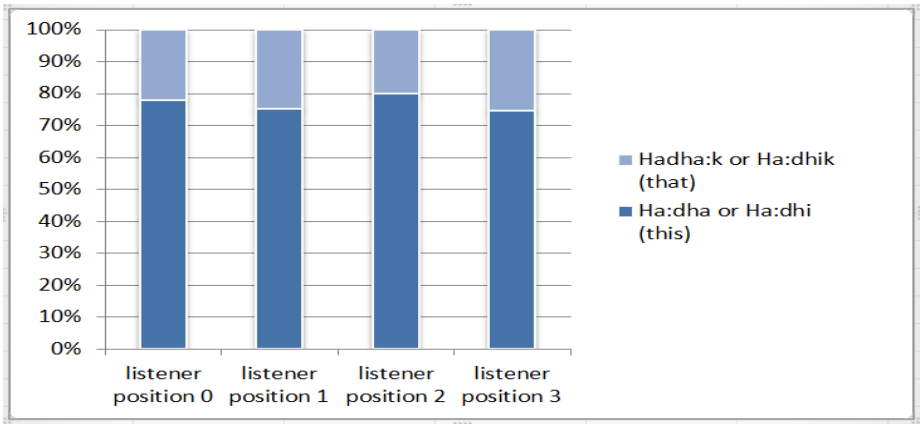

Fig. 2. Average percentage of demonstrative choice in Algerian Arabic when the target object was in Position 0.

This consistent preference for proximal demonstratives across all positions of the listener in Algerian Arabic, as illustrated by Figure 2, is notably more similar to the results found in English than in Spanish (see **Figure 3.** below). Since both English and Algerian Arabic operate with a two-term demonstrative system, there is a clear tendency to use proximal demonstratives to indicate something between the speaker and the listener (Diessel, 1999) or close to the speaker. Nevertheless, the listener's position did not matter because the speaker's focus was primarily on the object itself. This pattern emphasizes that Algerian Arabic demonstrative usage closely aligns with a distance-oriented approach in object position 0.

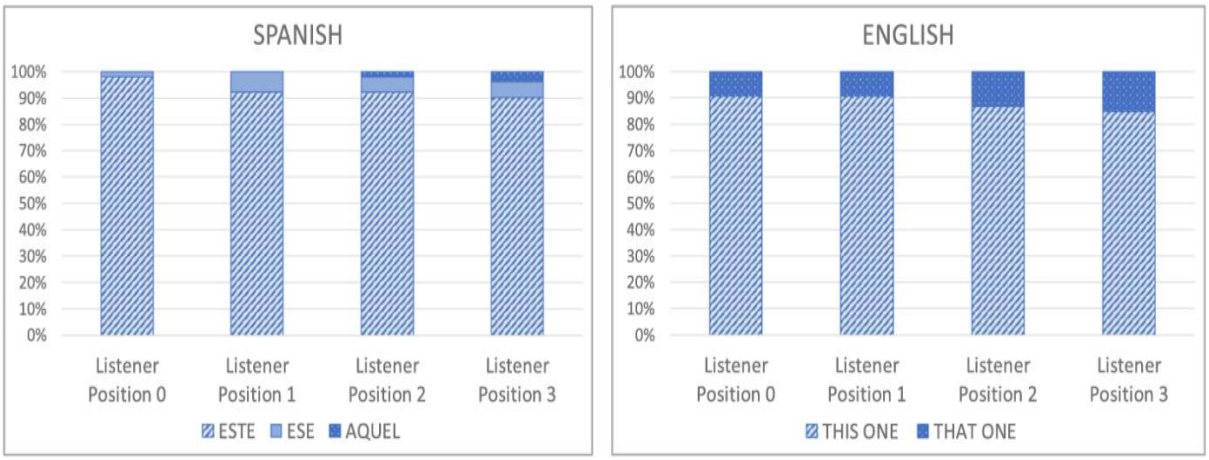

Fig. 3. Average percentage of demonstrative choice in English and Spanish (Experiment 1), the results were reported by Rubio-Fernandez (2022:7).

Object position 1

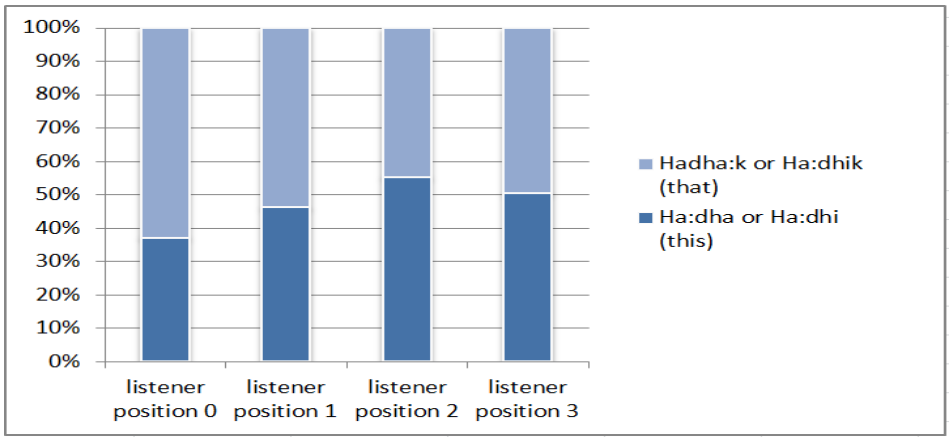

Fig. 4. Average percentage of demonstrative choice in Algerian Arabic when the target object was in Position 1.

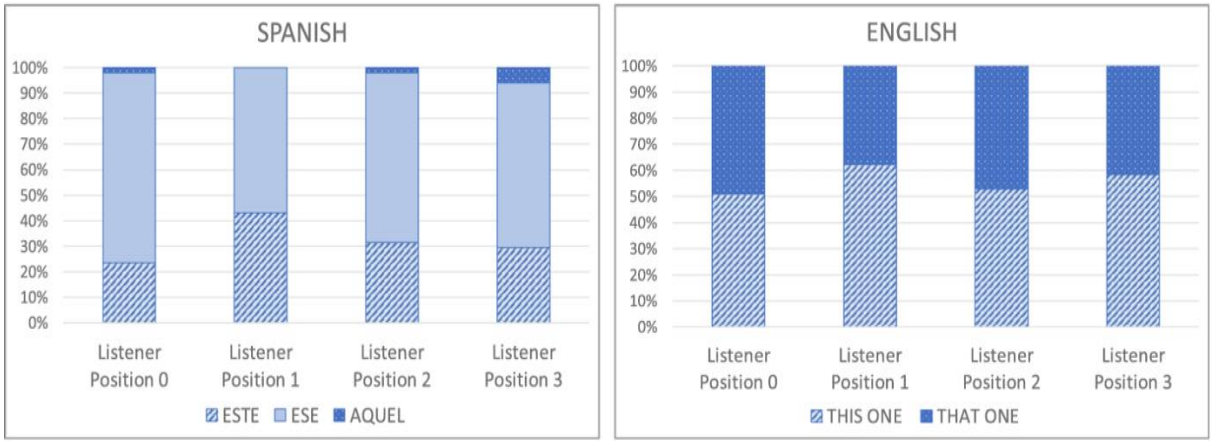

Fig. 5. Average percentage of demonstrative choice in English and Spanish (Experiment 1), the results were reported by Rubio-Fernandez (2022:8).

In object position 1, as the relative distance of the object increased, participants tended to use the distal demonstrative more. This pattern was consistent across different listener positions, expect for listener's position 0 and 1, where the object was located near the listener, participants used the distal demonstrative more often than the proximal one (see Figure 4). This may suggest that in Algerian Arabic, the choice of demonstrative may not depend solely on the physical distance between the speaker and the object. Instead, it may also be influenced by the relationship between the speaker and the listener. In fact, 31.8% of participants indicated that the listener's position is a factor in deciding which demonstrative to use, and that they chose the distal demonstrative not because the object is farther away from them, but because it is near the listener. This suggests that the Algerian Arabic demonstrative system could be both distance-oriented similar to English and person-oriented as well like Spanish, where the role of the listener plays a part in the choice of demonstrative.

Object position 2.

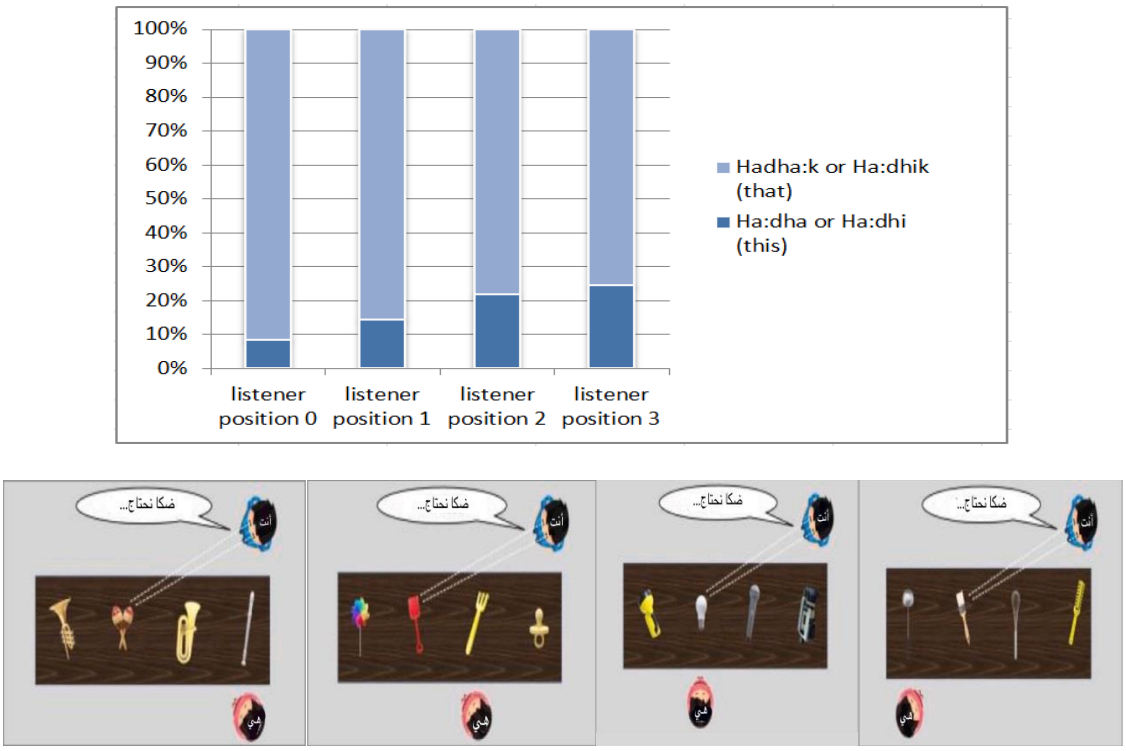

Fig. 6. Average percentage of demonstrative choice in Algerian Arabic when the target object was in Position 2.

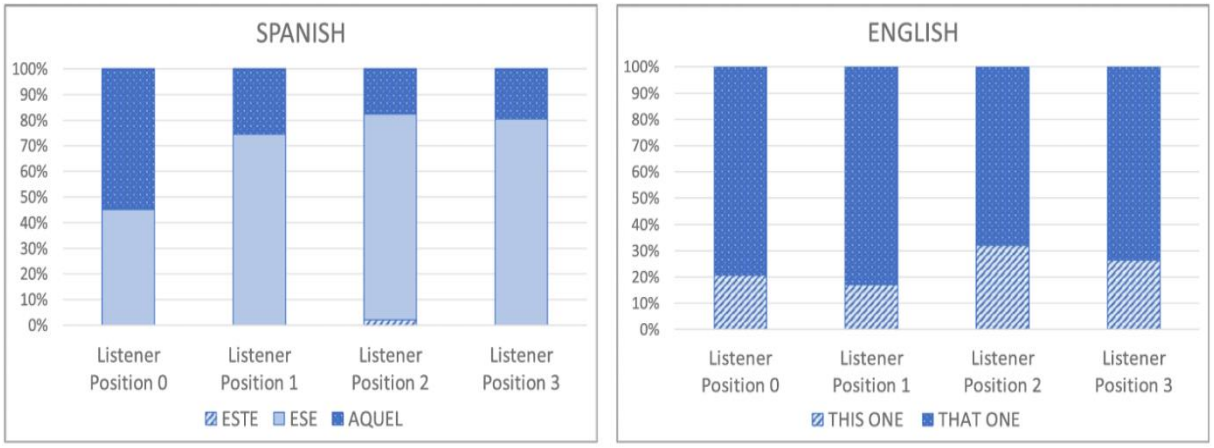

Fig. 7. Average percentage of demonstrative choice in English and Spanish (Experiment 1), the results were reported by Rubio-Fernandez (2022:8).

In this section, I will analyze object positions 2 and 3 together for distal demonstratives in Algerian Arabic, as the results for both positions were similar.

Object position 3.

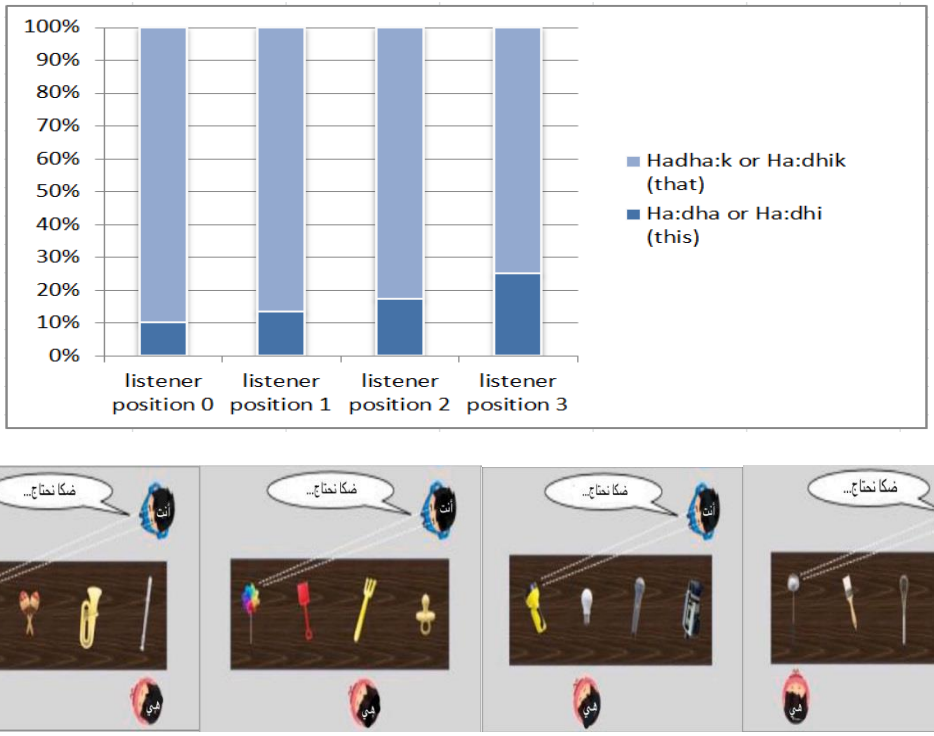

Fig. 8. Average percentage of demonstrative choice in Algerian Arabic when the target object was in Position 3.

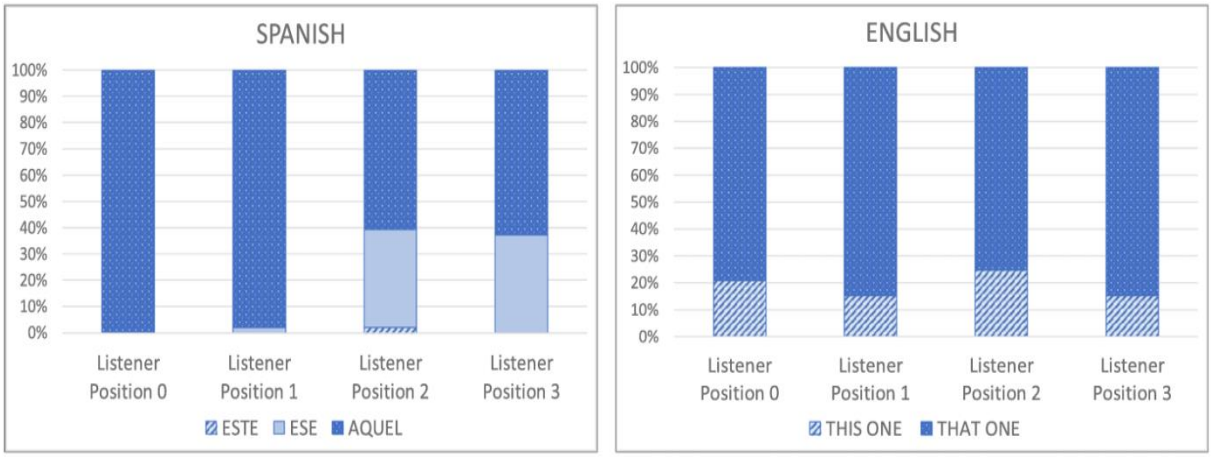

Fig. 9. Average percentage of demonstrative choice in English and Spanish (Experiment 1), the results were reported by Rubio-Fernandez (2022:9).

The preference for distal demonstratives in object positions 2 and 3 aligns with a distance-based model of demonstrative usage. This pattern mirrors the English system, where demonstratives are primarily influenced by the object's relative distance from the speaker, rather than the listener's position. Notably, all listener positions behaved similarly in this respect, with participants consistently choosing the distal demonstrative as the object moved farther away, regardless of where the listener was. Unlike Spanish, which often incorporates person-oriented factors, Algerian Arabic is more like English, seems to prioritize spatial distance in these contexts. However, given earlier observations that Algerian Arabic may exhibit characteristics of a mixed system can suggest that while a distance-based approach is dominant, contextual factors may still influence demonstrative choice.

To further investigate the factors influencing demonstrative choice, participants answered three post-task questions related to the previous task. The first question was, "What matters most when you choose between *this* and *that* ?" A significant majority, 61.4%, prioritized the distance between themselves and the object, while 31.8% considered both the distance and the listener's position. This supports the idea that demonstrative selection in Algerian Arabic is primarily based on distance rather than the person involved, but in the same time also shows that the listener's position might have an effect on the demonstrative choice.

For the second question, participants completed the prompt *"Now I need…"* using an image from the previous displays featuring a cup positioned between the speaker and their friend. Most participants (68.7%) chose *"this cup,"* highlighting its proximity to the speaker, whereas only 13.3% said *"that cup,"* which was closer to their friend. Finally, the third question explored the role of shared attention in demonstrative choice (see Figure 10). When

both the speaker and listener focused on the object, 78.3% of participants preferred a proximal demonstrative, while only 13.3% opted for a distal one, despite the object being equidistant from both.

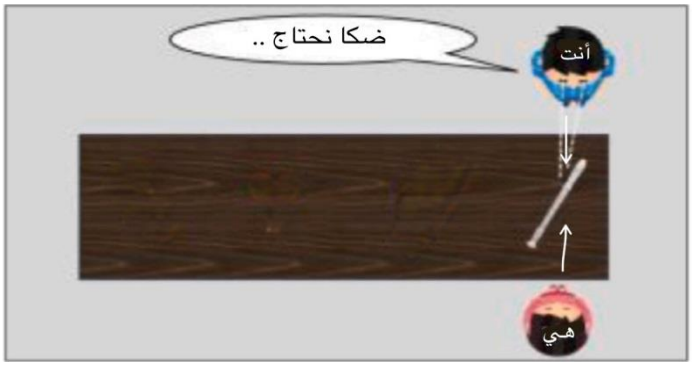

Fig. 10. Example of a display Used in the Questionnaire: Demonstrative Choice in Algerian Arabic with the Target Object in Position 0.

This finding highlights that while Algerian Arabic includes elements of a distance-oriented system, similar to English, the selection of demonstratives is still influenced by the listener's position. This reflects characteristics of a person-oriented system, much like Spanish. However, the primary factor in choosing demonstratives remains the physical distance to the object similar to English system.

5.5 Discussion

Demonstrative systems vary across languages, with some primarily relying on spatial distance and others incorporating cognitive and interactive factors. Research suggests that languages like English tend to be predominantly distance-oriented (Diessel, 1999; Levinson, 2018), while others, such as Spanish, may give greater weight to the listener's position (Cifuentes-Honrubia, 1989). This distinction raises an important question: To what extent does Algerian Arabic follow a distance-based model?

The results of this study suggest that Algerian Arabic demonstratives are primarily governed by spatial distance rather than interactive factors (the listener's position). In the experimental task, participants selected demonstratives based on their proximity (distance) to the object, this aligns Algerian Arabic system more closely with English than with Spanish. This finding reinforces the argument that in Algerian Arabic, demonstrative choice is primarily a function of spatial relationships rather than a tool of interaction. However, an interesting nuance emerged from the answers given during the post-task discussion. Distance is obviously the dominant factor, but 31.8% of the participants acknowledged that the listener's position also matters and that it did influence their choice of demonstrative. This last observation sheds light on the study of Coventry et al. (2008), who argue that demonstrative use is not purely based on spatial distance but also on other functional and interactive factors. Their study involved experiments where participants selected demonstratives while they interact with objects of different sizes and degrees of manipulability. They found that demonstrative choice was influenced not just by distance but also by whether an object was within reach and how it was being used in a shared communicative space; this may explain why a subset of Algerian Arabic speakers exhibited sensitivity to listener position. Coventry et al. (2008) demonstrated that in some languages, demonstrative use is influenced by how an object is handled or how attention is shared between speaker and listener. Similarly, in Algerian Arabic, while most speakers relied on spatial distance, some appeared to adjust their demonstrative choices when an object was particularly relevant to the listener's perspective. Therefore, I can suggest that demonstrative selection in Algerian Arabic is primarily distance-based, and can be subtly influenced by cognitive and interactions between the speaker and the listener under certain conditions supporting Coventry et al.'s claim.

Moreover, the findings of this work contrast with Cifuentes-Honrubia (1989), their study examined Spanish demonstrative usage in natural conversations and found that speakers often selected demonstratives based on the listener's attentional focus[21] rather than absolute distance. Unlike Spanish, where demonstrative choice often signals attentional focus and pragmatic intent, Algerian Arabic speakers focused on distance-based selection. Nonetheless, the fact that the listener's position has some influence on demonstrative choice in Algerian Arabic suggests that the language is not entirely based on distance alone. Instead, it shows some sensitivity to interactive and attentional factors[22], similar to what has been observed in Spanish. This raises an important question: Is Algerian Arabic changing to become more like Spanish, where demonstratives are chosen based on interaction and attention, or is this just a small variation within a mostly distance-based system?

If Algerian Arabic is shifting toward a more interactional system, this could mean that the interaction between the speaker and the listener is becoming more important in how demonstratives are used. Therefore, we can hypothesize that this kind of change might be a consequence of the influence of other languages, such as French, or it might be caused by broader cultural changes. In this case, demonstratives would be chosen more based on how the listener is paying attention rather than just on physical distance. On the other hand, if this influence is only minor, then Algerian Arabic is likely still a primarily spatial system. In other words, while speakers sometimes consider the listener's focus, distance remains the main factor in demonstrative choice. In this case, we can consider the small effect of the shared attention as an exception rather than a sign of major change.

[21] What a listener is mentally concentrating on during a conversation.
[22] How a speaker chooses words based on what they think the listener is focusing on.

Rubio-Fernandez (2022) further expands on the cognitive basis of demonstrative use, her work emphasizes that demonstratives function not just as spatial markers but also as tools for guiding joint attention. In her study, she employed eye-tracking experiments to observe how speakers and listeners process demonstratives in real-time interactions. It was revealed that speakers dynamically adjust their demonstrative choices depending on their listener's focus when it comes to Spanish and Japanese speakers; demonstrative selection is not a fixed, spatially determined process but rather a flexible, cognitive one (Rubio-Fernandez, 2022). In this context, the partial listener-based sensitivity observed in Algerian Arabic can be interpreted as an example of this cognitive function in action. While Algerian Arabic primarily follows a distance-based system, some speakers adjust their demonstrative selection based on the listener's focus. Such a hypothesis suggests that demonstrative choice is not entirely rigid to the proximity to the referent. For instance, if native Algerian Arabic speakers notice that the listener is already focused on a distant object (the object location is far from the listener), they may choose a distal demonstrative, aligning their perspective with the listener's attention rather than strictly following spatial distance (their origo). This suggestion mirrors the cognitive mechanism described by Rubio-Fernandez, where demonstratives have multiple roles in a language system; one of these roles is that these expressions can function as a means of directing or reinforcing joint attention rather than solely marking physical distance.

In sum, while Algerian Arabic aligns with English in its predominantly distance-based system, the presence of listener-based sensitivity highlights the complexity of demonstrative use; the influence of the listener's position also suggests that even distance based languages may incorporate interactional considerations under certain conditions (Levinson, 2006), and Algerian Arabic is an example of such cases.

5.6 Limitations

First, the age range of the participants may have impacted the results. The majority of the participants were between the ages of 20 and 25, which means the results may not fully represent how different age groups use demonstratives in Algerian Arabic. Furthermore, the sample size was relatively small (83 participants), and the majority were female, which limits the generalizability of the findings across a broader demographic.

Second, the experimental design might have influenced the results. The pictures used in the online questionnaire, which were intended to collect data, may have been somewhat misleading due to the positions of both the speaker and the listener. Since the speaker's position was placed at the top of the picture and the listener at the bottom, this could have made it more difficult for participants to imagine themselves as the speaker, especially when they were not facing the objects on the table in the same way in their screen. I doubt that this design issue might have caused some confusion or affected the participants' ability to make accurate choices.

Finally, sociolinguistic factors also can be considered as an issue, such as age, education level, and bilingualism. These factors were not extensively analyzed in this study.

Chapter 6 : Conclusion

6.1 Summary

Investigating demonstratives is an interesting broader aspect of linguistic research. These expressions influence how speakers of all languages direct attention and establish reference in discourse; they also serve as linguistic tools that allow speakers to indicate objects or entities based on the speaker's spatial location or "the origo", their relation to the interlocutor (listener's position or focus), and other cognitive or pragmatic considerations (Bühler, 1990; Diessel, 1999). The object of this thesis is to introduce and investigate the demonstrative system of Algerian Arabic (Darija), their use, and function in daily life conversations. The main aim is to determine whether it aligns more closely with a distance-oriented system, such as that found in English (Levinsion, 2018), or if it exhibits characteristics of a person-oriented system, as seen in Spanish (Cifuentes-Honrubia, 1989).

First, the study begins with an overview about demonstrative systems in various languages such as Modern Standard Arabic "MSA", English, and Spanish, in order to establish a strong foundation to understand the following parts of the study. The literature framework also highlighted the distinctions between distance-based and person-oriented models. In simple words, English has a simple two-terms system which might be the common shared category between languages. In this system, demonstratives are determined solely by spatial distance; for example, *this* is used for objects near the speaker, while *that* refers to those farther away (Diessel, 2006). Spanish, in contrast, integrates the listener's attentional focus into the demonstrative choice; this means that demonstratives do not merely encode spatial distance but also interpersonal dynamics as Cifuentes-Honrubia's (1989) findings revealed. To investigate the main question of thee study "Is Algerian Arabic changing to

become more like Spanish, where demonstratives are chosen based on interaction and attention, or is this just a small variation within a mostly distance-based system?" I conducted an experimental methodology that replicates Rubio-Fernandez's (2022) first experiment on demonstratives in English and Spanish. A total of 83 native speakers of Algerian Arabic were asked to complete a questionnaire, which was designed to explore the factors that influence demonstrative selection in Algerian Arabic. The experimental setup involved storytelling with visual scene (i.e., pictures), where participants represent the speaker position and had to request an object from a friend, with variations in object placement and listener position. The participants were asked to complete a sentence "now I need ...." with the appropriate demonstrative.

Second, the results of this work found that Algerian Arabic primarily follows a distance-oriented system, as speakers predominantly relied on proximity (the distance between them and the object) to determine demonstrative selection. Like English speakers, Algerian Arabic speakers used proximal demonstratives for objects near them *ha:dha* or *ha:dhi* (this) and distal demonstratives for objects farther away *ha:dhak* or *ha:dhik* (that) depending on the distance and gender of the referent. However, the data also revealed a little but notable influence of the listener's position on demonstrative choice. In cases where the object was closer to the listener than the speaker, some participants adjusted their demonstrative choice, demonstrating elements of a person-oriented system. The results challenge the rigid categorization of demonstrative systems as purely spatial or purely interactional and suggest that demonstrative choice in Algerian Arabic might be dynamic and context-dependent instead (Levinson, 2006; Enfield, 2003).

Finally, the discussion highlights the complexity of deictic functions and the link between spatial, cognitive, and interactive factors in language use. It also confirms that the dominant pattern in Algerian Arabic is the distance-based system, but the observed sensitivity to listener position found in the results may suggest that demonstrative selection is not entirely determined by spatial relationships alone; this hypothesis supports theories that argue for a more flexible and context-driven approach to deixis such as Fillmore (1982).

Overall, this study sheds light on the understudied area of Arabic demonstrative systems that has received little attention in linguistic research, e.g., Algerian Arabic.

Therefore, this research enhances our understanding of demonstrative systems in this particular dialect and also contributes to broader discussions in semantics, pragmatics, and cognitive linguistics, it raises a lot of questions about the factors shaping demonstrative systems, including the role of language contact, bilingualism, and sociocultural influences. The findings underscore the need for further exploration of how demonstrative systems evolve and adapt to different communicative contexts in Arabic varieties. Also, there is a serious need for more research about the intricate relationship between language, cognition, and interaction. To sum up, this study offers a comprehensive examination of demonstrative selection, emphasizing its dynamic nature and the broader implications for linguistic typology and deixis research.

6.2 Future research

Although this thesis provides valuable insights into the demonstrative system of Algerian Arabic, several avenues for future research remain open. I can suggest one direction, which might be to conduct a comparative study involving speakers from different regions of Algeria

(east, west, and the middle) in order to investigate whether geographic variation also influences demonstrative choice, regarding the dialectal variation that exists in Algerian Arabic (Harrat et al., 2016). Future works may examine the regional differences, which may reveal whether certain areas exhibit a stronger preference for person-based demonstrative selection rather than a distance-based system.

Additionally, a deeper sociolinguistic analysis could explore how factors such as education level, bilingualism, and social interaction shape demonstrative use. Algeria's complex linguistic landscape, influenced by Arabic, French, and Berber languages, presents a unique opportunity to investigate how multilingualism affects deixis (Benrabah, 2013). Future studies could examine whether speakers with greater exposure to French, a language with its own demonstrative conventions, exhibit different patterns of demonstrative selection compared to monolingual speakers.

Another important avenue would be to incorporate real-time conversational data. While this study utilized an experimental questionnaire to control for variables, naturalistic discourse analysis could provide additional insights into how demonstratives function in spontaneous speech. Research incorporating methodologies such as corpus linguistics or ethnographic fieldwork would help capture the pragmatic and interactive dimensions of demonstrative use in everyday communication (Enfield, 2003; Levinson, 2006). Furthermore, future research could benefit from incorporating eye-tracking experiments to analyze the cognitive processing of demonstratives in Algerian Arabic. Studies such as Rubio-Fernandez (2022) have demonstrated that eye-tracking provides valuable data on attentional alignment between speakers and listeners. Applying this method to Algerian Arabic could offer deeper insights

into how visual attention interacts with demonstrative choice, reinforcing or challenging the findings of this study.

Finally, cross-linguistic comparisons with other Arabic dialects, as well as with languages that have undergone similar sociolinguistic influences, would contribute to a broader understanding of demonstrative systems. Investigating whether demonstrative sensitivity to social interaction is more pronounced in dialects with greater French or Berber influence could shed light on how external linguistic factors shape deixis over time.

In sum, while this study has provided a foundational analysis of demonstratives in Algerian Arabic, future research should aim to expand its scope through sociolinguistic, cognitive, and cross-linguistic approaches.

References

Benrabah, M. (2013). Language conflict in Algeria: *From colonialism to post-independence*. Multilingual Matters.

Bourdieu, P. (1991). *Language and symbolic power*. Harvard University Press.

Bühler, K. (1990). *Theory of Language: The Representational Function of Language* [1934] (D.F. Goodwin, Trans.). Amsterdam/Philadelphia: John Benjamins.

Coventry, K. R., Vald´ es, B., Castillo, A., & Guijarro-Fuentes, P. (2008). Language within your reach: Near–far perceptual space and spatial demonstratives. Cognition, 108(3), 889–895.

Cifuentes-Honrubia, J. L. (1989). Lengua y espacio: Introducci´ on al problema de la deixis en espa˜ nol. Alicante: Universidad de Alicante.

Diessel, H. (1999). *Demonstratives: Form, function and grammaticalization*. Amsterdam: John Benjamins.

Diessel, H. (2006). Demonstratives, joint attention, and the emergence of grammar. *Cognitive Linguistics, 17*(4), 463–489.

Enfield, N. J. (2003). Demonstratives in space and interaction. *Language,* 79: 82-152.

Fillmore, C. J. (1982). Towards a descriptive framework for spatial deixis. In Jarvella and Klein (eds.), *Speech, Place and Action*. Chichester: John Wiley, pp. 31-59.

Fillmore, C. J. (1997). *Lectures on Deixis*. California: CSLI Publications.

Grice, H. P. (1975). Logic and conversation. In P. Cole & J. L. Morgan (Eds.), *Syntax and semantics: Vol. 3. Speech acts* (pp. 41–58). New York: Academic Press.

Halliday, M.A.K. and R. Hasan. (1976). *Cohesion in English*. London: Longman.

Harrat, S., Meftouh, K., Abbas, M., Hidouci, W. K., & Smaïli, K. (2016). An Algerian dialect: Study and resources. *International Journal of Advanced Computer Science and Applications (IJACSA)*, 7(3), 384–396.

Hassan, A. (1995). *Al-Nahw Al-Waafy*. Cairo: Dar Al-Ma3aarif.

Kemmerer, D. (1999). "Near" and "far" in language and perception. *Cognition*. 73(1): 35-63.

Kendon, A. (2004). *Gesture: Visible action as utterance*. Cambridge University Press.

Levinson, S. (1983). *Pragmatics.* Cambridge: CUP.

Levinson, S. C. (2006). *Deixis*. In *Pragmatics*. Cambridge : CUP.

Levinson, S. C. (2018). Demonstratives: Patterns in diversity. *Language, 94*(2), 291–324.

Lyons, J. (1977). Semantics. *Volumes I & II.* Cambridge: CUP.

Rubio-Fernandez, P. (2022). Demonstrative systems: From linguistic typology to social cognition. *Cognitive Psychology.* https://doi.org/10.1016/j.cogpsych.2022.101519

Ryding, K. (2005). *A Reference Grammar of Modern Standard Arabic*. Cambridge: CUP.

Saadane, H., & Habash, N. (2015). A Conventional Orthography for Algerian Arabic. *Proceedings of the Second Workshop on Arabic Natural Language Processing*, 69–79. Beijing, China.

Zaki, M. (2011). *The semantics and pragmatics of demonstratives in English and Arabic* (Doctoral thesis). Middlesex University.