



## The Mutual Intelligibility of the Tunisian, Algerian, and Egyptian Dialects

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### ABSTRACT

Whether in Asia or the West, most people view all Arab countries as a single group “the Arab world.” Few realize that the Arab world spans over two major regions: the Middle East and North Africa. Even fewer are aware of the differences between these two areas or the distinctions among individual countries within them. These differences are not only of a religious or legislative nature, but also linguistic and communicative. Much like people from different provinces in China, Arabs from different countries often face communication issues with fellow Arabs from abroad. However, research on the dialects of various Arab countries is quite limited and mostly centered on the Middle East. This study focuses on three North African countries—two of which belong to the Maghreb.

**Keyword:** Mutual Intelligibility, Linguistics, Applied Linguistics, Arab, North Africa



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### 1. Introduction

Northern Africa referred to as “White Africa” has a rich and ancient cultural history. With 5,000 to 7,000 years of heritage, from the Phoenicians to the Greeks, from the Roman and Carthaginian empires to the French colonial rule, North Africa especially the Maghreb region has been influenced by numerous civilizations. This has directly impacted the dialects across North African countries.

All Arab countries recognize Modern Standard Arabic (MSA) as their official language and Islam as the official religion. However, due to the difficulty of MSA, distinct regional dialects began to develop over time (Fu Ting, 2019).

Globalization over centuries has affected the languages of many countries. As a result, dialects in various Arab nations particularly in North Africa have incorporated a substantial number of foreign loanwords (Li Jinli, 2017). In addition, historical and cultural factors have shaped their linguistic development. The farther a region is from Mecca, the more complex and divergent its dialect tends to be (Qin Shaoyun, 2008), with fewer similarities to MSA. Thus, people from different Arab countries often encounter communication difficulties, which are closely related to the “intelligibility” of their dialects (Lin Su’e & Su Xianping, 2007).

Tunisia, Algeria, and Egypt all hold important positions in the Arab world. (The Arab Spring began in Tunisia and later spread to Algeria and Egypt.) This research uses factors such as geography, history, culture, and media (Wang Lei, 1991) to explore the following question:

“How intelligible are the dialects of these three countries, and how mutually intelligible are they with each other?”

This article presents a three-week research project. It begins with an overview of the participants and methods, followed by data analysis, and concludes with explanations and limitations.

### *1.1. Research Background*

#### *1.1.1 Intelligibility and Mutual Intelligibility: Two Sociolinguistic Concepts*

Language intelligibility refers to the degree to which a speaker of one language or dialect can understand another. This concept is often used to evaluate the mutual understanding between related languages or dialects. Intelligibility is generally categorized into two types:

- Interlingual intelligibility (between different languages)
- Intralingual intelligibility (between dialects or variants of the same language)

Factors influencing intelligibility include phonological, syntactic, and lexical similarity, as well as the speaker's social, psychological background, and exposure to the language.

For instance, due to the close historical and structural relationship, a Danish speaker may find Norwegian relatively easy to understand, but may struggle with Icelandic, even though all three are North Germanic languages (Haugen, 1966).

Context also matters: prior exposure to a language, linguistic resources, and formal education all affect comprehension. Sociolinguistic studies often examine how language contact, policy, and bilingualism influence intelligibility. Gumperz (1982), for example, discussed how community attitudes toward language affect perceived intelligibility across speech communities. Understanding intelligibility is crucial for language planning and education.

In Tunisia, Algeria, and Egypt, the official language is MSA, so this study technically involves dialectal intelligibility. However, in daily life, MSA is rarely spoken; each country's dialect includes regional variations. For instance, even within Tunisia, southern and capital city speakers often face communication issues. Therefore, to avoid affecting results, this study uses each country's "most standard" or widely spoken dialect variant.

#### *1.1.2 Participants*

The research participants came from three countries. To maintain anonymity, all data collection was conducted via online meetings, with cameras turned off and no private information collected. Each country had 30 participants (total: 90), ranging in age from 8 to 86.

Gender is not a variable in this research, so to exclude it as a potential factor the gender distribution was kept as close as possible to 50/50, with 50% male and 50% female Tunisian participants, 56.6% male and 43.3% female Algerian participants and 46.6% male and 53.3% female Egyptian participants.

Although age was not necessarily a variable, a diversity of age groups was considered. Most participants (over 60%) were aged between 20 and 50. There were only a few participants under 18 or over 50 in each country.

## **2. Method**

This study was inspired by the methodology of Tang Zhaoju & Vincent Van Heuven in their "Experimental Testing of Mutual Intelligibility Among Chinese Dialects" (2006). Their primary method involved listening to a story and retelling it. This study adapted and expanded on that idea with four types of tests:

### 2.1. Pronunciation Test

Across all Arab countries, dialects have been influenced by MSA. In some dialects, grammar is closer to MSA; in others, lexical similarity dominates. Some words are spelled identically but pronounced differently—let's call them “xwords.”

Hypothesis: “For native speakers of Country 1, xwords from Country 2 are highly intelligible.”

Test: Five questions where participants hear a single word (no subtitles) and must write its meaning. The words are presented in random order with the dialect source announced but not the word's meaning.

### 2.2. Vocabulary Comprehension Test

In the Maghreb (Tunisia, Algeria, Morocco), indigenous Berbers existed before the Arabs' arrival. Later, French colonization added a French influence to the language. The result is a linguistic mix: Arabic + Berber + French. Many loanwords in these dialects have no connection to Arabic—let's call these “wwords.”

Hypothesis: “For native speakers of Country 1, wwords from Country 2 are harder to understand.”

Test: Five questions where participants hear a word or short phrase and write its perceived meaning.

### 2.3. Listening Comprehension Test

Based on Tang & Van Heuven (2006): a conversation is recorded in three dialects. Each is played once (2–3 minutes). Afterward, participants answer questions to assess how much they understood.

This test had no hypothesis. It aimed to measure real-life mutual intelligibility.

### 2.4. Translation Test

This test assessed reading comprehension. Participants saw sentences in different dialects and had to translate them into their own dialect. This tested whether subtitles (visual input) improved intelligibility.

There were six questions—three sentences per dialect.

## 3. Result and Discussion

The following data (ergo the survey's results) is presented as percentile test scores. The higher the score, the higher the intelligibility.

All three countries scored above 80% in the first part, with an overall average of 92%. Tunisia scored 96% (98% for Algerian dialect and 94% for Egyptian dialect), Algeria 95% (98% for Tunisian dialect and 92% for Egyptian dialect), and Egypt 88% (94% for Tunisian dialect and 82% for Algerian dialect). While Egypt's score is slightly lower than the others, the results show no major issues for any country.

A likely explanation is that the words in this test originated from MSA. Since all Arab speakers have at the minimum a basic MSA knowledge, differences in pronunciation did not significantly hinder comprehension.

The second part highlights the strong linguistic connection between Tunisia and Algeria. They showed almost no issues understanding each other's dialects (90% for Tunisians and 98% for Algerians). Tunisia (92%) and Algeria (80%) also largely understood Egyptian wwords. However, Egypt scored significantly lower—only 63% for Tunisian dialect and 50% for Algerian dialect.

A reasonable inference is that Tunisia and Algeria's shared history and geographic proximity contribute to their mutual intelligibility. Egyptian dialect may benefit from its media presence (television, film, entertainment), making it more familiar across the Arab world.

In the third part, Egypt again scores notably lower (69%) compared to Tunisia (97%) and Algeria (81%). Tunisia and Algeria show the same pattern as in the previous test—high mutual intelligibility.

Tunisia's nearperfect scores when listening to Algerian (96%) and Egyptian (98%) dialects may stem from the relative difficulty of the Tunisian dialect. (See the bonus question of annex 1: 95% of respondents believed Tunisian Arabic is the most difficult dialect in the Arab world.) This could mean Tunisians find it easier to understand other dialects.

The final part confirms earlier hypotheses. Egypt's overall score (87%) was lower than Tunisia's (97%) and Algeria's (95%). Tunisia and Algeria again showed deep mutual understanding (96% and 97% respectively), and Egyptian dialect was well understood (98% for Tunisians and 97% for Algerians).

## 4. Conclusion

The intelligibility of the three dialects calculated per the test's results are as follow: Tunisia leads with 94.825% for Algerian and 95.375% for Egyptian, Algeria follows with 92.825% for Tunisian and 87% for Egyptian, and lastly Egypt with 72.5% for Algerian and 77.5% for Tunisian. This means the highest mutual intelligibility

is between the Tunisian and Algerian dialects with around 93%, making the Algerian dialect the least intelligible since both Egypt and Tunisia had the lower score when it came to said dialect.

Several hypotheses are confirmed by these results:

1. Tunisia and Algeria have a very close relationship—shared history (both originally inhabited by Berbers and colonized by France) and geographic proximity likely contribute to their high mutual intelligibility.
2. Egyptian media plays a major role in increasing the intelligibility of the Egyptian dialect. As a cultural powerhouse in the Arab world, Egypt's television and movies help speakers from Tunisia and Algeria understand its dialect better.
3. Egypt's proximity to the Middle East and its exclusion from the Maghreb could explain why Egyptians understand Tunisian and Algerian dialects less—especially vocabulary.
4. Tunisians demonstrated the highest overall comprehension of the other dialects, likely because their own dialect is the most difficult. Once a speaker masters the most complex variety, others may seem easier to understand.

However, this smallscale study naturally lacks precision. Research materials (both domestic and international) are limited. The sample size was small, the research period short, and the methods and survey content could be further refined. Still, this study serves as a valuable starting point. With more research, a deeper analysis of dialect intelligibility and its influencing factors could be done—potentially including other dialects such as those of Morocco, Libya, or the Middle East.

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## Appendix

### Annex 1 : The Survey (English Version; Originals were in both English and French)

(The recordings in the listening sections were in Arabic, and their English translations were written on the questionnaires.

Survey :

#### I. Basic information

##### 1) Your gender

- ☐ M  
☐ F

##### 2) Your age group

- ☐ Under 18  
☐ Under 30  
☐ Under 40  
☐ Over 50

##### 3) Your home country

- ☐ Tunisia  
☐ Algeria  
☐ Egypt

#### II. Part One : Pronunciation

Listen carefully to the five words and write their meanings (answers can be in dialect or MSA):

##### 4) First word: “man”

- ☐ Tunisian/Algerian/Egyptian dialect (Different questionnaires were sent according to the nationality of the respondents, and the three questionnaires were combined here) \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

##### 5) Second word: “girl”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

##### 6) Third word: “juice”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

##### 7) Fourth word: “meat”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

##### 8) Fifth word: banana

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

## III. Part Two: Vocabulary Comprehension

Write the meaning of the following five words/phrases (answers can be in dialect or MSA):

9) “I am your father.”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

10) “I want to eat ice cream.”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

11) “Cooking pot”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

12) “Room”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

13) “Let’s go!”

- ☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_  
☐ Tunisian/Algerian/Egyptian dialect : \_\_\_\_\_

## IV. Part Three: Listening Comprehension

Listen to the recorded conversation (the dialogue was prerecorded in all three dialects), then answer the questions (you can skip if you do not know the answer):

Wednesday, 12:34 PM, sisters Hejer and Sarah are lying on the couch watching TV.

Sarah: Sis, I’m hungry.

Hejer: Oh? It is time to eat. What do you want, sweetie?

Sarah: I don’t know. Do we have any leftovers?

Hejer: The chicken soup is all finished. There’s only some tomato pasta left.

Sarah: I don’t want tomato pasta.

Hejer: Then what do you want? We have vegetables—I’ll fix you something!

Sarah: I want... hmm...

Hejer: Cream pasta?

Sarah: Too greasy.

Hejer: Pancakes?

Sarah: Too sweet.

Hejer: [...] (A spicy tomatoegg dish; different names in the three dialects)

Sarah: Too spicy!

Hejer: So hard to please! Never mind, I won’t cook for you.

Sarah: Hmph!

14)

Dialect	Tunisian/Algerian/Egyptian	Tunisian/Algerian/Egyptian
What were they doing? What time was it?		
What are their names and relationship?		
What were they planning to do?		
How many dishes were mentioned?		

## V. Part Four: Translation

Translate the following sentences into your own dialect (there are 3 sentences per dialect):

15) Do you have a crush on anyone? (Dialect 1): \_\_\_\_\_

16) It's really hot today. (Dialect 1): \_\_\_\_\_

17) That shirt of his is so ugly. (Dialect 1): \_\_\_\_\_

18) Do you like her boyfriend? (Dialect 2): \_\_\_\_\_

19) Is it hot today or not? (Dialect 2): \_\_\_\_\_

20) Your new dress is really pretty! (Dialect 2): \_\_\_\_\_

## 21) Bonus Question:

In your opinion, which Arabic dialect is the most difficult?

Answer: \_\_\_\_\_

Thank you for your help!