



# Grammaticalization in MSA: The Case of 9abra as a Preposition (A Corpus-based Study)

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## ABSTRACT

This study examined the use of the linguistic form 9abra (through) in Modern Standard Arabic within the framework of grammaticalization using authentic data available online. The goal of the study is to investigate the actual usage patterns of this form and its evolution into a grammaticalized preposition with different semantic sense. The study revealed that the form was grammaticalized in the 19th and early 20th centuries as a form of contact-induced grammaticalization (Heine 2005). The paper presented formal and functional motivations for considering the form as a grammaticalized preposition and the changes that accompanied its grammaticalization. The study showed that 9abra has evolved from the spatial to the temporal domain and then was further abstracted to mean instrument (means) along with its spatial and temporal reference. Following Heine's model of grammaticalization processes (Heine 2003), the study also showed that the path of grammaticalization involved decategorialization, desemanticization, and expansion. It is hoped that this study has made a contribution to Arabic prepositions and to grammaticalization research.

**Keywords:** spatial prepositions, grammaticalization, 9abra (through), decategorialization, MSA, desemanticization.



## 1. Introduction

In all the languages of the world, new words are constantly being formed from old ones, while existing words are given new meanings. Communication needs require this change, and language adapts to it as best it can while preserving its structure, properties, and existence (see Bybee 2015, Aitchison 2001). Among the myriad methods of language change grammaticalization stands out. Scholars since 18th century have been particularly interested in language change and grammaticalization and discovered that numerous examples of lexical items tended to "bleach" into grammatical ones (Traugott 2010). Meillet (1912) was the first to identify the direction of linguistic change from lexical to grammatical words. The process proceeds from the syntactic phase to the morphological one (Campbell and Janda 2001). The grammaticalization phenomenon has contributed to the expansion of the grammatical resources of languages far beyond what is usually recognized in traditional grammar books. As Diewald (2010) noted, grammaticalization of periphrastic verbal phrases has significantly expanded German auxiliary systems. However, traditional accounts of German tense and mood systems continue to incorporate some periphrastic structures while rejecting others (p. 29). A comparable situation arises in Arabic, where there is a separation between language reality and language description. Esseesy (2010) proclaims that the Arabic grammar tradition has conventionally fostered an aversion to language change and linguistic diversity. This attitude is still widely spread today, making it difficult to seek new insights into Arabic linguistics despite the need for such insights. He also suggested that Modern Standard Arabic (hence MSA) contains fewer grammaticalized forms than spoken Arabic dialects (Esseesy 2010). However, this does not mean that grammaticalization is not there.

The process of grammaticalization essentially means the gradual conversion of a lexical item into a grammatical item. This process is followed by a subsequent change in the semantic and formal properties of that item. Grammaticalization is a natural phenomenon found in all languages of the world including MSA which is a widely used variety of Arabic in all official and academic contexts, news websites, media channels, social platforms, and blogs. It is also the variety used in educational institutions and textbooks as well as newspapers. MSA uses the form 9abra (through) to express movement and traversal of space. This preposition is not recognized as such in Arabic grammar books. It is either considered a noun or, at best, classified as zarf (adverb). This discrepancy requires further investigation of this issue with the assumption that it is a case of grammaticalization.

A quick search of the contemporary Arabic corpus ArTenTen2012 proves that there are at least 2.4 million occurrences of 9abra (through). In most of these contexts, the form functions as a preposition and never as a noun. This raises questions as to the



different meanings and syntactic functions that 9abra (through) performs in MSA, and whether it functions as a preposition or an adverb, or both.

To my knowledge, no research has been carried out on this subject. In this paper I argue that 9abra (through) should be considered a preposition on the basis of two facts: (1) its spatial relational content, which is not covered by the existing system of spatial prepositions; and (2) its frequent use in Modern Standard Arabic to express traversal. The main goal of this research is to present linguistic evidence that supports the assumption that 9abra (through) is used as a preposition.

Grammaticalization can lead to the development of previously nonexistent grammatical categories (Lehmann 2015). This applies to the grammaticalized form 9abra (through). According to traditional Arabic grammar books and dictionaries, this form was considered a noun until the late 19th century (see Appendix A for a list of consulted dictionaries). The first reference to this form as a preposition was found in Hans Wehr's dictionary (1960), followed by The Basic Arabic Dictionary (henceforth ABD) (1989), then The Contemporary Arabic Dictionary (henceforth CAD) (2008). In Hans Wehr's (1960) dictionary, 9abra is classified as a preposition meaning *across*. In ABD, 9abra is defined as a verbal noun (masdar) meaning *through*. However, CAD, the most recent of them all, also categorized 9abra as a verbal noun (masdar). Consequently, despite the recognition of the different spatial senses of 9abra (through), its categorical character remains uncertain. The senses of 9abra are listed below.

**9abra** (1) crossing (gerundival noun of the verb 9abara (crossed), (2) Xilaala (through) as in "Its influence extended through centuries", "He went through the fields" and "through time and space" (The CAD, p. 1451)

Although this form has been indexed independently of other morphologically related lexical words, it is still regarded as a noun. It is recognized that this noun has the meaning of *through* and *across*, but it is not classified as a preposition or even an adverb. Therefore, the traditional categorization of 9abra as a noun obscures the fact that the form is no longer used in its gerundival meaning but is used in the present as a preposition. The transition from the lexical meaning of "crossing" to the grammatical meaning of "across" or "through" is examined in this work through addressing the following questions.

1. What are the actual uses of the form 9abra (through) in MSA?
2. What justifies considering 9abra (through) as a grammaticalized preposition?
3. What are the formal and functional features of this preposition?



4. What processes are involved in the grammaticalization of 9abra (through)?

To that end, this research attempts to highlight the actual usage patterns of this preposition in MSA based on empirical data. It also attempts to trace the evolution of this form into a preposition and to explain the formal and functional motivations that account for its grammaticalization.

The present work is structured as follows: Section 2 gives a summary of the literature on grammaticalization. Section 3 explains the methodology used for data collection and analysis. Section 4 examines the frequency of 9abra (through) and its semantic scope in MSA and provides empirical evidence supporting the paper's hypothesis. Section 5 discusses the formal aspects of this form and the reasons for its categorization as a preposition. Section 6 discusses the processes leading to the grammaticalization of the 9abra, and section 7 outlines conclusions and recommendations for further research.

## 2. Literature Review

### 2.1 The Grammaticalization Phenomenon

Grammaticalization is a universal language phenomenon that has grown in popularity in linguistics since the 1980s (cf. Lehmann 2015, 2008, 2004, Hopper et al 1991, Hopper & Traugott 2003, Heine & Kuteva 2002, 2003, Traugott 2003, 2010, 2017, Norde 2002, 2009, 2013 and countless others). There are differing views on its definition and scope between those who see it as an all-encompassing term for any language change and those who limit it to the single case of developing grammatical units from lexical units (see Mengden & Simon 2014, Appelbaum 2014, Joseph 2021 for an insightful discussion). In general, the term grammaticalization in the sense of Lehmann (2015, 2004) is the loss of the autonomy of a lexeme due to greater limitations imposed by the language system. Joseph (2001) defines it as a phenomenon where forms that have fairly concrete lexical meanings and functions at a certain point in the history of a language come to have more abstract grammatical uses and meanings at a later point (p. 164). Such a definition is more realistic as it opens the way to a more accurate description of grammaticalization as an epiphenomenon brought about by a series of processes (Bybee 2010, Diewald & Smirnova 2012). Various models have been proposed to explain the grammaticalization phenomenon (see e.g. Lehmann 2015, Hopper 1991, Hopper & Traugott 2003, Heine & Kuteva 2007). As a result, there is a composite of processes that contribute to the grammaticalization of lexical items. These processes are not necessarily present in every case of grammaticalization, nor all at once.

According to Heine et al. (1991), grammaticalization is induced by both



psychological and pragmatic factors. Psychological motives include the need for cognitive representation (see Bybee 2003 for other reasons). The pragmatic factors are triggered by communication, inferences, and the need for informativeness (see also Traugott & Knig 1991, Hopper & Traugott 1993). These motivations lead to a series of semantic changes that are generally listed under reanalysis and analogy as the main and consequential mechanisms of grammaticalization (Norde & Beijering 2014, Hopper & Traugott 2003). Grammaticalization is always accompanied by loss of syntactic autonomy, reduction of phonetic matter (Lehman 2015), to which Heine (2003) adds decategorialization (loss of categorical syntactic features), desemantization (semantic bleaching) and extension (context expansion).

Language change is approximated within grammaticalization theory from two different perspectives. One is a diachronic perspective, which examines the prototype of a grammatical form and the historical stages through which it has developed. From this perspective, grammaticalization is typically viewed as a series of linguistic shifts in which lexical items acquire grammatical properties or grammatical items develop different grammatical functions. The other perspective is synchronic, in which grammaticalization is viewed primarily as a pragmatic phenomenon that should be examined from the standpoint of language use (Hopper & Traugott 2003). In this paper, the diachronic changes can be inferred from synchronic uses of the form in MSA.

## 2.2. 9bra (across) as a Grammaticalized Form

Review of the literature on grammaticalization of prepositions in MSA shows that there are no previous studies on this preposition. It was mentioned in passing by Esseesy (2010) in his seminal study of Arabic prepositions, but only to illustrate its possible lexical source. There Esseesy mentions that it evolved from a landmark term (p. 41). Tracing the meaning of 9abra in Arabic dictionaries from Al-Klaleel Ibn Ahmed's book, Al-Ain, through the centuries to the present proves that the original meaning of the lexeme might very well be a grammaticalization of the noun *ibrun* which means (river bank or river side) as suggested by Esseesy (p. 43). This grammaticalization is very old and has nothing to do with the grammaticalized preposition 9abra. In effect, it relates more to the grammaticalization of the verb form 9abra (to cross) itself, with all its three basic meanings illustrated below.

### *9abara (to cross)*

1. *To cross as in to cross a river or the road*
2. *To interpret a dream*
3. *To cry (the flow of tears from the eye) ( Lisan Al-Arab p. 2782) (CAD p. 1451)*





The central sense of the verb is physical traversal. It is also the grammaticalized sense from the original lexical source, *ibrun*, as was stated by Esseesy (2010). The other two senses represent different metaphorical extensions (Jabal 2010). The pivotal meaning of this lexeme in general is the transition from one side to the other opposite side. Tears, on the other hand, move and cross the rim of the eye and come down. Interpreting a dream is a metaphor which ascribes to the person the ability to move from the superficial meaning of the symbols in a dream to the more concrete and realistic meanings.

There are various lexical sources for grammaticalized adpositions. These sources include nouns used for landmarks and body parts, as well as verbs (see Svorou 1993, Hiene & Kuteva 2002, 2007). For the grammaticalized preposition *9abra*, it can be suggested that the lexical source is the gerundival noun form of the verb *9abara* (crossing). This case of grammaticalization is entirely new and only occurred in the 19th and 20th centuries through contact with English. Evidence for this recent development of the form can be found in the writings of Al-Zayyat (n.d), who in his writings then condemned the use of the gerundive noun (*9abra*) as an adverb corresponding to the English preposition *across*. He said that the use of *9abra* as an adverbial form was ungrammatical and forced under the influence of translation from English to Arabic. Its use as such then became widespread in war telegrams and commentaries, in descriptions of raids and military movements, in political speeches, and so on (Al-Zayyat n.d.). The writings of Al-Zayyat indicate that the grammaticalization of *9abra* could be viewed as contact-induced language change (see Heine & Kuteva 2005, 2001, Heine 1994).

Since that time the use of *9abra* has evolved to reach its current status as a preposition. Categorical shifts are often indicated by changes in the structural relationships and morpho-syntactic features of the grammaticalized forms along with possible expansion of functional scope (Esseesy 2010).

### 3. Method

The objective of this paper is to investigate the grammaticalization and usage of the form *9abra* as a preposition in MSA based on large amounts of real data. The ultimate goal is to find out how *9abra* is used in MSA and what important functions it fulfills, and to characterize its evolution from its original meaning to its actual modern use as a preposition. To achieve these goals, the form *9abra* is analyzed in terms of its frequency in usage-based online text corpuses of the MSA as well as its syntactic and semantic properties. The occurrences of the form in the corpus were collected,



examined, and analyzed based on the type of the following complement with which it correlates.

### 3.1 The corpus

The study is based on material collected from MSA's web corpora available on the Sketch Engine website. The database is known as Arabic Web 2012 (arTenTen, Stanford Tagger) and contains more than ten billion Arabic words. All sentences cited in this study come from this corpus, which contains contemporary textual data from various websites, most of which are news websites and blogs. The corpus contains news websites and blogs from all Arab countries, making the data representative of MSA. The corpus is compiled for the purpose of language analysis in 2012.

### 3.2 Data Analysis

The first step was to search the data for the lexeme 9abra. Then the right and left words filter was applied to the results to discover relevant instances of 9abra and to exclude all instances of the identical verb forms. Variants of the form 9abra containing the definite article al- were also excluded from the total number of occurrences of 9abra because they express a different meaning. The third step was to identify collocations of the structure 9abra + Noun type to study the semantic and syntactic features of the form as a preposition. Collocations with a frequency below 300 were excluded from the data due to the large amount of data. The final step was to manually identify the semantic uses of the form.

## 4. The Frequency and Semantic Scope of the Form 9abra

The frequency of use has a significant impact on the formal and semantic development of words. Words change their meaning or expand their scope in the company of other words with which they occur in the same context (Acquaviva, Lenci, Paradis, & Raffaelli 2020). Harris (1991) found that words form syntactic dependencies with other words with which they occur frequently. These dependencies take the form of operators and their arguments. The statistical frequency of such occurrences is directly related to the meaning of the words concerned (p.321). In addition, increasing frequency of use has been suggested as a strong motivation for the changes indicative of grammaticalization (see Bybee 2003, Heine Kuteva 2005). Therefore, to support the categorization of 9abra as a preposition as opposed to an adverb or a noun, evidence based on usage of the lexeme must be presented. This methodology has proven to provide substantial credible empirical evidence of



linguistic changes in the context of grammaticalization (Hoffman 2005, Esseesy 2010).

First, a survey on the lexeme 9abra was conducted through Sketch Engine's website. As the table below shows, the search was performed based on part of speech to separate the noun occurrences of the lexeme from the verb occurrences. A variant noun form was found in the data and was excluded which is the noun al-9ibar (useful lessons). It shares the same morphological source as the form 9abra but with a different meaning. The verbs 9abbara (to express) and 9abara (to cross) are also spelled the same way as 9abra in Arabic but have different meanings and uses. The difference is visible through the script's use of markings and diacritics that show case and indicate gemination. Diacritics are only visible orthographically and the Sketch Engine tool does not recognize them. Therefore, excluding verb and noun occurrences had to be done manually. The results of the survey are listed below.

**Table 1 Frequency of Occurrence of 9abra in the Data**

Concordances of 9abra as a noun	1,563,914
Excluded Noun occurrences	54,888
Excluded verb occurrences	174389
Excluded Common Words & Numbers	68696
Identified collocations	1,265,941

The occurrences of 9abra in the data are all prepositions followed by a noun phrase, definite or indefinite, and sometimes a clause with the relative pronoun ma. Below are examples of these structures organized to indicate prevalence.

**Table 2 9abra + Noun Combinations in the Data**

Constructions	Examples	Function
9abra + NP	9abra <u>munaZZamatt al-umam al-muttaHida</u> through <u>the United Nations</u>	Preposition
	9abra <u>qanaat Hajariya</u> through <u>a stone channel</u>	
9abra + Relative Clause	9abra <u>ma yaqumuuna bi-hi min ?a9maal</u> through <u>what they do</u>	Preposition





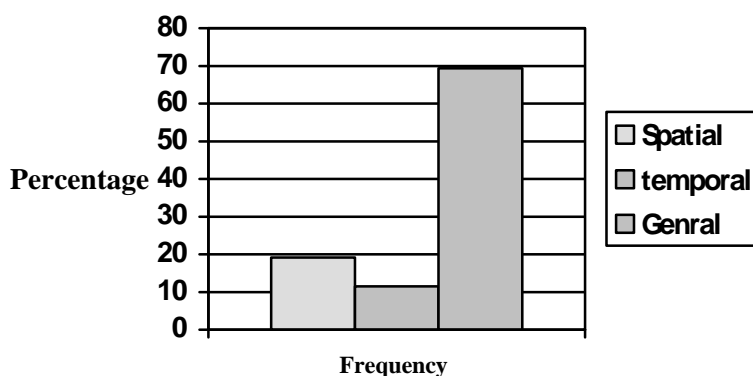
Collocations of 9abra + NP structures were classified into spatial, temporal or non-spatial/ non-temporal groups to determine the typical uses of 9abra as reflected in the data. An inspection of the semantic field of nouns after 9abra shows the following results about its usage.

**Table 3 Semantic Scope of 9abra in the Data**

Nouns after 9abra	Spatial Nouns	Temporal Nouns	Other Nouns (Not Spatial nor Temporal)	Number of Identified collocations
<b>Number of Instances</b>	242,510	145,288	878,143	1,265,941
<b>Percentage</b>	19.1565009744%	11.4766801928%	69.3668188328%	100%

The table shows that 9abra is used to express spatial concepts and temporal concepts. its spatial use outweighs its temporal use. Additionally, 9abra has evolved to be used in construction with other nonspatial and nontemporal nouns to express meanings beyond its original spatial sense. This proves that grammaticalization has made a leap in a very short time considering that it has remained constant for more than a thousand years. These uses of 9abra and their frequency should be taken as evidence of the form's behavior as a preposition, and the progress that the form has made to its current status, which will be discussed in the coming sections. The statistics show that the non-spatial/non-temporal uses of 9abra are more common than its spatial and temporal uses combined. They also show that spatial uses are more common than temporal uses, which seem more like frozen time expressions and clichés, as will be illustrated. The distinctions between the three uses of 9abra are shown in figure 1.

**Figure 1 Frequent Uses of 9abra in the Data**





#### 4.1 9abra as a Spatial Preposition

In this section, I illustrate how this form is used to express spatial concepts that are not covered by ordinary primary prepositions. To do this, we must consider the system used to express spatial concepts of movement and location in Arabic as a whole. There are several ways for classifying prepositions in Arabic. All of these classifications are based on formal and syntactic criteria (Hasan 1973, Ryding 2005, Abu-Chacra 2007). Semantic criteria, on the other hand, are neglected. The conceptualization of space in Arabic depends mainly on prepositions which indicating motion or locatedness (Wright 2011) and on adverbs, which Arab grammarians call zuruuf al-makan (adverbs of place). Zuruuf al-makan are basically forms derived from trilateral lexical roots with locative senses (Ryding 2005).

Prepositions and adverbs of place are used as the basis for representing space in Arabic (see Husni & Zaher 2020, Peate 2012 for a full account of Arabic spatial language, Esseesy 2010). The basic function of adverbs of place is to convey locatedness. Movement, on the other hand, is expressed only by prepositions, simple or complex, which are presented in Table 4.

**Table 4 Simple and Complex Prepositions of Motion**

Simple Prepositions	Complex Prepositions
من from min	من داخل from inside min daaXil
الى to ?ila	الى داخل / خارج into / ?ila daaXil/Xaarij out of
عن away 9an	باتجاه towards bi-ttijaah
ب by bi	من فوق / من تحت from above min fawq / min taHt from below

Of the six members of the paradigm, only min (from) and ?ila/9an (toward/away) are used to express the source and goal of movement. There is no preposition to express the path of motion. Hence the appearance of the preposition 9abra, which conveys meanings such as through, across and over, is natural to fill in the gap. The advent of this preposition is also accompanied by a decrease in the frequency of use of the verb 9abara (to cross). I believe this is because the preposition 9abra expresses path, which allows language users to use the main verb to express other actions, leaving the expression of path to the preposition. The verb 9abara (to cross) is underspecified in contrast to the more specific ways of traversal available to language users such as naqala (to transport), tasallala (to sneak), etc. It just conveys the meaning of traversing



from one side to another without any further specification. Using the preposition to convey the meaning of "crossing" leaves the main verb of the sentence free to communicate other meanings. The following are examples of 9abra as a spatial preposition and the range of meanings it expresses.

### **A. The Preposition 9abra Meaning "through"**

The following sentences are examples of using 9bara as a spatial preposition meaning through. Although accurate statistics on the frequency of this usage have not been compiled, it is generally the most common usage of this preposition in the data.

دخلوا تونس عبر الحدود الجزائرية

1. daXaluu tuunis **9abra** al-Huduud aljzaa?iriya  
They entered Tunisia through the Algerian borders.

سيرت اربع قوافل برية ضخمة الى غزة عبر معبر رفح

2. sayyarat ?arba9a qawaafil barriyat DaXmah ?ila Gaza **9abra** ma9bar rafaH  
(They) sent four huge land convoys to Gaza through the Rafah crossing.

هرب البارزاني الى روسيا بعد مسيرة 52 يوما عبر الاراضي التركية

3. haraba albarazani ?ila ruusiya ba9da maseerat 52 yawman **9abra** al-?araaDi al-turkiya  
Barzani fled to Russia after a 52-day march through the Turkish territory.

من مرج ابن عامر تمر المياه عبر نفق

4. min marj abn 9amir tamuru almiyaah **9abra** nafaq  
From Marj Ibn Amer, water passes through a tunnel.

### **B. The Preposition 9abra Meaning "across"**

The second most common use of the preposition 9bara in the data is with the meaning of across, as the subsequent sentences show.

البعض الاخر انتقل الى مدن اخرى عبر ربوع المملكة

5. alba9Du al-?aXar ?intaqala ?ila mudun ?uXraa **9abra** rubuu9 al-mamlakah  
Others moved to other cities across the kingdom.

رحلات عبر القارات قامت بها شعوب مثل الفايكنج



6. riHalaat **9abra** al-qaraat qaamat bi-ha shu9uub mithla al-fayking  
Journeys across the continents were undertaken by peoples such as the Vikings.

حملة اسطول الحرية التي انطلقت سفنها عبر المياه الدولية

7. Hamlat usTuul al\_Huriya alati inTalaqat sufunu-ha **9abra** al-miyaah a-ddawliya  
Freedom Flotilla Campaign whose ships set off across international waters.

تم تهريب الحيوانات عبر الحدود المصرية السودانية

8. tamma tahreeb al-Hayawanaat **9abra** al-Huduud al-misriya as-suudaaniya  
The animals were smuggled across the Egyptian-Sudanese border.

### C. The Preposition 9abra Meaning "via"

This is the third most common use of 9abra in the data. This usage shows that the form may have been semantically expanded at a later stage to the point where it meant also "by" as will be mentioned.

غادروا عبر مطار بيروت

9. Gaadaru **9abra** maTaar bayruut  
They left via Beirut airport.

سيحصل على المياه الاتية من المرتفعات الاثيوبية عبر النيل

10. sayaHSul 9ala almiyah al-?aatiya min al-murtafa9aat alathyubiya 9abra an-neel  
As for the north, it will get water coming from the Ethiopian highlands via the Nile

قدم من مملكة البحرين عبر جسر الملك فهد

11. qadima min mamlakat albahrayn 9abra jisir almalik fahad  
He came from the Kingdom of Bahrain via the King Fahd Causeway.

يمكن الوصول الى امارة راس الخيمة عبر طريق الامارات

12. yumkin al-wuSuul ?ila amarat ras alXayma 9abra tareeq alimaarat  
The emirate of Ras Al Khaimah can be reached via the Emirates highway.

### D. The Preposition 9abra Meaning "around"

The last most common usage is with the meaning of "around". The examples of 9abra with this meaning are fewer than the previous two. The data provided about 4000 sentences with this meaning, which is interesting because it raises the question



of the difference between 9abra with this sense and the preposition Hawla (around) with the same meaning.

رسم فيها لموريتانيا صورة ذهبية في اذهان الناس عبر العالم

13. rasama fee-ha li-muritaanya Suuratan ḍahabiya fi ?aðhaan an-naas 9abra al-9aalam  
He painted a golden image of Mauritania in the minds of people around the world.

جذب هذا الاكتشاف الباحثين عبر العالم

14. jaḍaba haḍa al-iktishaaf al-baaHitheen 9abra al-9aalam  
This discovery attracted researchers around the world.

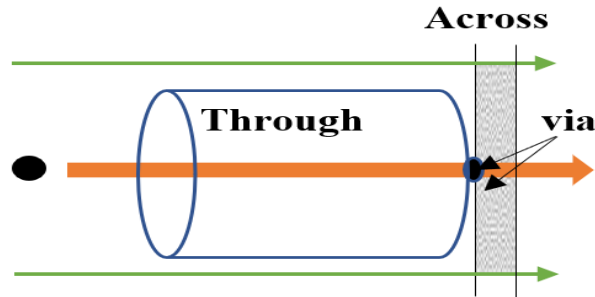
التجول من حين الى اخر عبر ارجاء البيت

15. at-tajawul min Heenin l-?aaXar 9abra ?arjaa? al-bayt  
Wandering from time to time across the house.

These are the only contexts where 9abra is used to mean "around". Problematic cases like these make the schematic specification of this preposition proposed in figure 2 not complete.

The preceding examples show that the semantic scope of 9abra includes the meanings of *through* in group A, *across* in group B, *via* in group C, and *around* as in group D. Compared to the verb 9abara (to cross), which expresses traversal, the preposition 9abra conveys the meaning of traversing across a medium and beyond a spatial reference point. This means switching from the speaker's perspective conveyed by the verb to a third-person perspective conveyed by the preposition. This is what grammaticalization theorists call objectification (Rhee 2005). From a conceptual perspective, Langacker (1990, 1999) considers objectivity as a situation type associated with event structure and focus of attention. The same idea is expressed in Talmy's "Windowing of Attention proposal (2000), in which greater attention is given to one or more regions within a spatial scene while other parts of the scene receive less attention (p. 77). In the case of the preposition, attention is directed to the fact of traversal and rather than the source or target of this traversal. Below is a schematic characterization of the basic spatial senses covered by the preposition 9abra based on its uses.





### Linear Spatial Extension

Figure 2 Schematization of the Spatial Orientation of the Preposition 9abra

#### 4.2 9abra as a Temporal Preposition

Temporal uses of the form 9abra + NP structures (denoting time) is also abundant in the data. But temporal uses of 9abra are less frequent than spatial uses in general. In addition, temporal 9abra + NP expressions appear to be fixed in the sense that new instances cannot be instantaneously produced. The following time expressions seem to be associated with 9abra most of the time.

Table 5 Temporal Uses of 9abra

Temporal Expressions		Frequency
عبر التاريخ	9abra at-taareeX Throughout history	49,917
عبر تاريخ	9abra taareeX Throughout the history of	12,719
عبر الزمن	9abra az-zaman/ al-?azmaan az-zamaan Through time	19,879
عبر العصور	9abra al-9uSuur Through the ages	15,890
عبر السنين	9abra as-sineen through the years	10, 912
عبر سنوات	9abra sanawaat through years	6,010
عبر السنوات	9abra as-sanawaat through the years	5,051
عبر القرون	9abra al-quruun through the centuries	6,761



عبر مراحل	9abra maraHil/ ?al-maraaHil through stages	7,178
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The table shows that 9abra is also implemented in high-frequency fixed time-expressions. Other less common temporal expressions such as (through the days/days) (through the hours/hours) are present in the data but are not significant. In these expressions, the form 9abra conveys the meaning of over a specific period of time. So, this sense can be a metaphorical extension of its spatial sense. Below are some examples that illustrate how 9abra is used in the data.

لقد رأينا عبر التاريخ كيف يتحول البشر الى سلع

16. laqad ra?ayna 9abra at-taareeX kayfa yataHawal al-bashar ?ila sila9  
Throughout history, we have seen how people turn into commodities

قصص التاريخ عبر الزمن برهنت على ان الحق لا بد ان يعود

17. qisas at-taareeX 9abra az-zaman barhanat 9ala ?an al-Haqqa laa budda an ya9uud  
History stories through time have proven that what is right must prevail.

يكافح الناس عبر العصور من اجل اثبات ذواتهم

18. yukaafiH an-naas 9abra al-9uSuur min ?ajl ?ithbaat ðawaati-him  
People have struggled through the ages to prove themselves.

بنية السلطة في الجزائر تشكلت عبر مراحل

19. binyat as-sulTa fi -ljazaa?ir tashakalat 9abra maraaHil  
The power structure in Algeria was formed through stages.

The form 9abra in the above examples expresses the meaning of *through*. This meaning is constant and unchanging. The temporal expressions themselves are also fixed phrases. This fact may influence the future development of the form 9abra as a time preposition.

#### 4.3 9abra as a General Preposition

According to the statistics in Table 5, above, 69% of 9abra instances involve non-temporal and non-spatial senses. It has already been mentioned that 9abra has evolved significantly into a generic preposition that is not limited to time or space. This section examines various examples of 9abra as a generic preposition along with the variety of meanings they contain. Due to the wealth of data, the survey presented here



by no means claims to be complete. The following sentences from the data demonstrate the preposition 9abra with non-spatial and non-temporal uses.

تعرفوا على هذه الاماكن عن طريق اصدقائهم او عبر الانترنت

20. ta9arrafuu 9ala haðih al-?amakin 9an Tareeq ?aSdiqaa?i-him ?aw 9abra al-?intarnit  
They learned about these places through their friends or through the Internet.

اتصلت " العربية . نت " عبر الهاتف ب السفير اللبناني

21. ittaSalat "al9arabia.net" 9abra al-haatif bi-ssafeer allubnani  
Al-Arabiya.net contacted the Lebanese ambassador by phone.

هذه الدراسات العلمية تصلني عبر البريد الالكتروني

22. haðih ad-dirasaat al-9ilmiya taSilu-ni 9abra al-bareed al-?iliktroni  
These scientific studies reach me via e-mail.

حتى يتسنى لهم التدخل عبر القنوات القانونية

23. Hataa yatasanaa lahum at-tadaXhul 9abra al-qanawaat alqaaunuuniya  
So that they can intervene through legal channels.

تنتقل الامراض عبر استخدام لوحات مفاتيح كمبيوتر مشتركة

24. tantaqil al-?amraaD 9abra istiXdaam lawHaat mafaateeH kumbyuutar mushtaraka  
Diseases are transmitted through the use of shared computer keyboards.

كانت اولويتنا ارضاء المشتركين عبر تقديم افضل الخدمات

25. kaanat awlawiyaatu-na ?irDaa? al-mushtarikeen 9abra taqdeem ?afDali al-  
Xadamaat

Our priority was to satisfy the subscribers by providing the best services.

نقلوا عبر قوارب انقاذ

26. nuqiluu 9abra qawaarib ?inqaað  
They were transported by rescue boats.

The preceding examples reveal that 9abra can be used to denote the sense of by/by means of. This is an abstract sense that has evolved from the more concrete sense of "traversing". From the purely physical act of connecting two opposite sides to the abstract means of this connection. This development seems gradual. The core semantic sense is traversing a medium. This medium started out as space, then became more abstract to include time. Eventually, it has reached a stage in development where it can mean any type of medium. The development can be summarized as follows:



Through Space → Through Time → Through Medium → By Means Of

All four senses can be expressed concurrently. However, the relative significance of each sense varies to a great extent. The figures in Table 5 show that the fourth meaning is the most pertinent. The evolution of the form also demonstrates a tendency towards increasing abstraction and thus grammaticalization.

### 5. The Formal Characteristics of 9abra

This section discusses the morphosyntactic characteristics of 9abra as used in the data to decide its status as noun, preposition, or adverb. First, the previous examples show that all instances of the form function as a preposition despite the fact that its etymological source is a verbal noun. As with other prepositions, it is followed by a noun phrase in the genitive case. It also has a fixed case ending in the accusative like adverbs such as *fawqa* (above) and *?amaama* (in front). The prepositional status of 9abra can be checked against the definition of prepositions (Hassan 1973). It functions in construction with the main verb in the sentence, conveying meanings related to the time and place of the action expressed by the verb (p. 434). This defining criterion for prepositions is also shared by adverbs as explained by Peate (2012). Both adverbs and prepositions perform the same function of adding circumstantial meaning, as shown in the examples in (27). In this respect, 9abra is similar to both prepositions and adverbs in the fact that it expresses a relational meaning that connects a figure (the subject) and a ground (the object).

27.

A. تسلل الى جبال العوالق

tasallal ʔila jibaa al-9awaaliq

He sneaked into Alawaliq Mountains.

B. تسلل تحت الجسر

tasallal tahta al-jisr

He sneaked under the bridge.

C. تسلل عبر سياج على الحدود

tasallala 9abra siyaa 9ala al-Huduud

He sneaked through a border fence.



According to linguists, prepositions are governed by the primary verb of the sentence they modify (Hasan 1973, Ryding 2005). This second crucial criterion is not limited to prepositions, but also includes adverbs (Hassan 1973, Peate 2012). The preposition 9abra also conforms to this criterion which means that it functions as a preposition. The following examples show that 9abra, like other prepositions and adverbs such as ?ila (to) or qabla (before), is governed by the verb.

28.

فروا عبر الحدود الفرنسية السويسرية

A. farruu 9abra al-Huduud alfaransiya alseesriya

They **fled** across the French-Swiss border.

ثلاثة جنود سوريين فروا قبل ايام الى شمال لبنان

B. thalaathat junuud suuriyeen farruu qabla ?ayyaam ?ila shamaal lubnaan

Three Syrian soldiers **fled to** northern Lebanon **before** a few days (a few day ago).

However, 9abra cannot be classified as an adverb for the following reasons. First, an adverb is defined as a noun indicating place or time. Second, it must contain the meaning of circumstantial (in) (Babasti 1992, Hassan 1973). This means that in order for a noun to be called an adverb, it must indicate locatedness in place or time. Events and actions must be located spatially or temporally in order to be carried out. Based on this definition, a noun is classified as an adverb when it signifies time or place and when its meaning conveys location of an action in time or space. It is clear that both criteria do not apply to 9abra as it does not indicate locatedness but movement and later means of movement. Therefore, 9abra cannot be classified as an adverb.

In addition, adverbs can sometimes be preceded by prepositions to denote movement, as in 29 below. The form 9abra, on the other hand, does not allow modification by prepositions. It already implies movement. It has also departed from its nominal status more than adverbs which can still function as nouns in nominal positions and can be preceded by prepositions.

29. اتي من فوقي

A. ?ata min fowq-i

It came from above me.

خرج من تحت السيارة

B. Xaraja min taHt ?s-sayara

It came out from under the car.





It remains to say that 9abra is also different from other verbal nouns that share the same etymology with it. Other verbal nouns can usually function as subjects and predicates and do accept the definite article and case endings (Hassan 1973). None of these characteristics apply to 9bara in MSA. Other verbal nouns such as *mashi* (walking) or *jari* (running) admit the definite article and can be used as subjects and predicates. They also accept case endings according to their position in the sentence, either as nominative for subjects and predicates, as accusative for objects, and as genitive in the case of annexation and preceding prepositions. The following examples illustrate the behavior of verb nouns in Arabic.

30. A. ?al-mashiy-u      9aaadat-un SiHHiyah  
The-walking-Nom habit-Nom healthy  
Walking is a healthy habit.
- B. laa ?u-Hibbu al-jarriy-a  
Not I-like the-running-Acc  
I don't like running.
- C. Ta9abt-u mina al-jarriy-i  
Tired-I from the-running-Gen  
I am tired of running.

In summary, the preposition 9abra cannot be classified as either a noun or an adverb as it fails to meet the criteria for either. It shows syntactically and semantically a behavior that is typical of prepositions and is accordingly to be classified as a preposition.

## 6. The Grammaticalization of the Form 9abra

According to Lehmann (2015), grammaticality is the degree of grammaticalization of a linguistic sign (p. 11). The form 9abra is, according to this view, a highly grammaticalized form. The transition from a lexical form to a grammatical form represents a gradual transition to a new function. This transition is called path or cline (Hopper & Traugott 2002) and in the case of 9abra the shift was from a gerund (verbal noun) to a preposition. The source of grammaticalization is the gerund (verbal noun). Therefore, the grammaticalization path is constructed as follows (see ):



**Table 6 Path of Grammaticalization**

F1 in L1				F2 in L2
<p><b>Gerund</b> crossing (fully declinable form) <b>9abr</b></p>	<p>an <b>adverb</b> of place through reanalysis becoming accusative at all times like adverbs <b>9abra</b></p>	<p>a <b>preposition</b> expressing spatial orientation <b>9abra</b></p>	<p>a <b>preposition</b> expressing spatial and temporal orientation metaphorization <b>9abra</b></p>	<p>a <b>preposition</b> expressing spatial, temporal, non- spatial/temporal meanings <b>through /across/ by/ by means of</b> desemanticization <b>9abra</b></p>

The lexical form is grammaticalized to become an adverb denoting spatial traversal, then case ending changes to become invariably accusative, like the rest of the adverbs in Arabic. Spatial movement is metaphorized to apply to time. The last stage is becoming a preposition designating means of movement. Based on the grammaticalization path in Table 2, the process follows this pattern:

#### **GERUND (VERBAL NOUN) > ADVERB > PREPOSITION**

According to Heine & Kuteva (2007), the grammaticalization of verbs into adpositions is well documented across languages (p. 71). In such cases, grammaticalization involves reinterpreting the structure [verb + noun phrase] into a structure [preposition + noun phrase]. Hopper and Traugott (2003), on the other hand, point out that adverbs represent an intermediate stage between main categories such as nouns and secondary categories such as prepositions (p.107). In addition to being marginal or peripheral between the noun and verb categories, verbal nouns can be subject to reanalysis (Kortmann and König 1992, Hayashi 2015). Heine & Kuteva (2007) gave examples from Swahili in which infinitives developed into prepositions, e.g., ku-pitia (to pass by) > kupitia (through, via) (p. 72). In English, deverbal prepositions such as according to, concerning, considering, following have provided evidence for the grammaticalization path of gerunds into prepositions (Hayashi 2015).

The following lines attempt a reconstruction of the syntactic and semantic changes leading to the development of 9abra as a preposition. The grammaticalization model proposed by Heine and Kuteva (2003) is applied because it is the most relevant to the development of 9abra. Nevertheless, it is important to start with reanalysis (Heine et



al 1991, Heine & Kuteva 2003, Hopper & Traugott 2003) as the trigger point of the grammaticalization path. Although erosion is part of Heine's model, it is not mentioned because it does not apply in the case of 9abra. The changes are decategorialization (loss of syntactic properties), desemanticization (semantic bleaching), and extension (expansion of meaning).

A. A syntactic reanalysis occurred in the form of a semantic reinterpretation of the structure [gerund + complement] as [preposition + complement]. A "context-induced reinterpretation occurs when a particular linguistic form develops an additional sense in certain contexts while its basic sense still exists (Heine et al 1991). Both meanings occur simultaneously in the same context. It becomes possible that one sense is meant by the speaker, but the other sense is understood by hearers (p.71).

9abru ?al-nahar (Crossing the river) > 9abra ?al-nahr (across the river)

B. Decategorialization means that morphosyntactic characteristics of the original forms such as case marking, or tense are lost (Heine 2005). The form 9abra lost its declension form and had a fixed accusative case at all times. In addition, it lost its autonomy and became more and more associated with a following noun as an object. Therefore, the chances of finding the form in nominal positions decreased enormously, marking its categorical shift.

C. Extension means using a linguistic form in contexts where it was not previously used (Heine & Kuteva 2005). Semantic extension happens through pragmatic enrichment. One of the most frequent methods of extension is metaphor (Heine et al 1991, (Lehmann 2015, Heine 2003, Traugott 2003). Metaphor involves the mapping of a physical conceptual domain to an abstract conceptual domain. This is reflected in the mapping of spatial motion to the domain of time. The fact of motion observed in the form (across/through) ,i.e., moving from one point in space to another, is mapped to time. Therefore, the abstract passing of time from one point to another is also conceived as movement.

D. Desemanticization, or "semantic bleaching" means the loss of a form's semantic matter. The lexical content of a form may "fade" or, if the form has several grammatical functions, one of them may be lost (Heine & Kuteva 2005). The spatial scope of 9abra has changed. The form used to mean crossing a body of water from side to side (across). Later, this sense was reduced to movement within any medium (through) rather than (across). Then,



the sense of traversal was lost entirely and faded into the more abstract meaning of (way) or (by way of).

The form 9abra has gone through different stages of abstraction which correspond to the scale of grammaticalization described by Heine (1991) as degrees of metaphorical "abstraction," until it reached its present status as a preposition. Heine's model is given in 31a (p. 48). The metaphorical shifts of 9abra are illustrated in 31b below.

31. A. PERSON > OBJECT > ACTIVITY > SPACE > TIME > QUALITY  
B. ACTIVITY > SPACE > TIME > MEDIUM > MEANS(INSTRUMENT)  
Physical > Physical > Abstract > More Abstract > More Abstract

In summary, the form 9abra has changed drastically in meaning and usage through continuous processes of grammaticalization. It is incorrect to call 9abra a verbal noun, since it is no longer a verb nor a noun for that matter.

## 7. Conclusion

This paper attempted to present evidence of the grammaticalization of the form 9abra in MSA by tracing its use in real texts. It has also attempted to provide reasons for considering it a grammaticalized preposition by analyzing the various its uses in the data. Heine's (2003) model of grammaticalization mechanisms was also applied to the form to verify the changes that the form underwent, and the formal and functional features it developed. As no previous studies of this form have been found, this work is the first to examine the usage and grammaticalization of this preposition in MSA. The form 9abra has been found to have three most prevalent meanings which correspond to three distinct stages of grammaticalization: decategorialization, desemanticization, and expansion. These stages confirm its status as a grammaticalized form. Overall, this study has shown how the form 9abra has evolved from a verbal noun to an adverb, then a preposition with spatial and temporal usage to its present-day status as a general preposition, meaning "by means of". The effects of different grammaticalization mechanisms were responsible for its wide semantic scopes. The study also proved that grammaticalization can be detected not only in the spoken varieties of Arabic but also in MSA variety. The study also proved that prepositions could develop from gerunds (verbal nouns) as a possible source of grammaticalization in addition to the already attested ones.

This research is limited to studying 9abra as a grammaticalized preposition in MSA. Other varieties of Arabic may contain specifications of the preposition not presented



in this study. A significant limitation also concerns the large corpus which made it impossible to arrive at fine-grained illustration of this preposition. Further studies can give a more specific account by focusing on a smaller corpus or other genres such as literary texts. Moreover, future research may quantitatively or cross linguistically examine the senses of 9abra to identify the most common sense. The grammaticalization of other prepositions in MSA may also be a valuable area of research in the future, such as the preposition xilaala (through).

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## Appendix A

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