

Spatial and temporal uses of Moroccan Arabic prepositions⁽¹⁾

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1. Introduction.

Correct use of prepositions is one of the most difficult problems that learners of foreign languages have to face even after many years of formal instruction. This difficulty is partly due to the lack of adequate and practical manuals, even for the learning of international languages, including English and French. But the most crucial reason undoubtedly resides in the fact that the use of prepositions is underlied by cultural systems of belief about spatial, temporal and other relations expressed by prepositions. A learner of English as a foreign language has to know, for example, that an island is considered in this language as a dimensionless point in order for him/her to produce correct structures such as “to live **on** an island” rather than incorrect ones such as “to live **in** an island”, for example; the dictionary meaning of ‘**on**’, no matter how detailed, will not provide the necessary information for an appropriate use of the preposition.

In this paper, I will attempt to address the issue of the spatial and temporal uses of Moroccan Arabic (MA) prepositions. Throughout the paper, I will be concerned

1. I would like to thank Dr. El-Hakkouni of the faculty of Letters, Rabat for having read an earlier version of this article. The present version owes a lot to his comments and suggestions. But I am the only one responsible for its shortcomings.

with the semantic distinctions between these prepositions and their Classical Arabic (CA) cognates. The focus will be particularly on metaphorical uses that uncover the cultural conceptions of space and time, and where divergence between MA and CA is found, a comparison with Amazigh will be drawn in order to account for the semantic change. MA and, until quite recently, Amazigh are unwritten languages which have been in contact with each other for a long period of time, long enough for the cultures they express to contribute to their mutual shaping. Will the uses of their corresponding prepositions be found to reflect this common cultural background?

2. Spatial uses.

By indicating the place of an object, speakers give away their subjective conception of space. The attribute “subjective” here does not imply that each speaker has his/her own conception or experience that may diverge widely from those of the other community members, but simply that, often, there is no single objective way of reconstructing the characteristics of space. Whether a place is seen as a point or as a one-, two-, three-dimensional space depends not only on its geometrical form, but also, and perhaps more importantly, on the uses that the speaker wants to make of it for the purposes of communication. Yet, speakers cannot have complete freedom to develop singular, unconventional conceptions of places and to talk about them in those terms; for otherwise communication would be hindered, if not totally broken. It is through a conventional conceptualization of space (and other) that community members develop their own ethos/world-view.

MA speakers do make quite singular uses of MA prepositions that cannot be translated literally, not only into distant languages, but also into related ones such as CA of which MA is considered to be a variety. The major spatial meanings expressed by MA prepositions will be discussed under three headings: position, relative position, and direction.

2.1. Position: ‘f’, ‘cla’, ‘cɔnd’.

Apparently, the prototypical uses of these three prepositions are to indicate position in three-dimensional space in the case of ‘f’(in), two-dimensional space in the case of ‘cla’(on) and zero-dimensional space in the case of ‘cɔnd’(at). The following examples illustrate these uses:

1. ncɔs xalid f l-qism (Khalid slept **in** the classroom)
2. gɔls-at l-bɔnt cla l-kursi (The girl sat **on** the chair)
3. tlaqa-w cɔnd l-bab (They met **at** the door)

A classroom is a place which has length, width, and height, whereas a chair (more precisely, a seat) has no height. As to ‘l-bab’(door) in (3), it does not denote so much the board or even the frame as the dimensionless point near the door. In this sense, ‘l-bab’ serves merely as a reference point; that is why (3) could equally express the same meaning with other prepositions such as ‘gōddam’(in front) or ‘hda’(near). Thus, the basic meanings of ‘f’(in), ‘ʿla’(on) and ‘ʿnd’(at) are best uncovered with noun complements denoting three-, two-, and zero-dimension spaces, respectively. Unclear and borderline cases (i.e. cases where the dimensions are ambiguous) are negotiated implicitly with reference to these prototypical uses, as will be explained immediately.

Whether a noun can function as a complement of the preposition ‘f’(in) depends on whether its referent can be conceived as a three-dimensional place. Certainly, cognitive factors are crucial in this respect, but they are not sufficient to explain the cross-language differences even among closely related languages. In MA, as in other languages, large two-dimensional spaces such as fields, gardens, pitches, etc., are usually treated as three-dimensional, probably because they are so large that the entities being located in relation to them seem to be engulfed by them. Small spaces with fences, barriers, sides, arms or any other edges also tend to be treated as three-dimensional. A chair, for example, is two-dimensional when considered as a mere seat, but its back can add to it the dimension of height. Thus, ‘kursi’(chair) can be used with the preposition ‘f’(in) as well as with ‘ʿla’(on), as in (2) above. Such use, however, is not acceptable in CA, just as is unacceptable the use of the CA preposition ‘fi’(in) with nouns denoting relatively large flat objects such as carpets, roofs, tables, desks, etc. Yet, the CA preposition and its MA cognate do not differ in their core meaning⁽²⁾; both of them are used prototypically with three-dimensional complements. What they do not share is a set of non-prototypical, borderline cases, which are, nonetheless, too numerous to be listed here. This fact indicates that, while the core meaning of spatial prepositions seems to resist change, their peripheral uses are less resilient and succumb relatively easily to acculturation.

In comparison, the core meaning of ‘ʿla’(on) is less clear-cut and not easily amenable to succinct description. Although we have restricted its use to two-dimension noun complements, what may be classified as one-dimension nouns are no less central to its use. There are some nouns which refer to entities with length

2. For those who would not agree that two words from different languages may differ in, or have the same, meaning, the concept of ‘application’, as used by Lyons (1968:434), or ‘applicability’, as used by Lyons (1977:213) may replace ‘meaning’ in this, and similar, contexts.

only such as bicycles, motorcycles, horses (and other mounts), rods, etc. The width and height of these entities are simply back-grounded. Such entities include Whether one-dimension nouns are conceived of, by metaphorical extension, as two-dimension nouns, or the latter are talked about in terms of the former, (or else the meaning of ‘cla’ is vague) are questions we need not settle here. Suffice it to point out that many MA predicates which take one-dimension complements correspond to CA predicates which do not need a preposition, as the following pair of examples illustrates:

4-a. kāna rākib-an faRas-a-hu (CA)

was.3ms riding-acc horse-acc-his

(He was riding his horse)

b. kan rakθb ʿla ʿθwd-u (MA)

was.3ms riding on horse-his

(He was riding his horse)

The change from predicates subcategorized for noun phrase complements (CA) to predicates subcategorized for prepositional phrase complements (MA) is certainly not a random process, nor is it a mere side-effect of some grammatical change. On the contrary, the change has occurred at the conceptual level, and change of subcategorization frames is a mere consequence of that change. The conceptual change consists in classifying one-dimension nouns along with two-dimension nouns. Some probable causes of this process will be discussed in the last section of this paper.

By contrast, a comparison of the preposition ‘cθnd’ and its CA cognate reveals that the two share many uses. In fact, their common uses far outnumber their divergences. This is probably because neither of them is subjected to much peripheral use, while their core meaning is unambiguously restricted to zero-dimension position, as is illustrated by (3) above. Apparently, it is highly unlikely that a spot will be conceived of any other way than as a zero-dimension place.

2.2- Relative position: fuq/taht, muR/gθddam, da, m^ca, bin.

These prepositions express the position of an object in relation to another object or more. The following diagrams illustrate the basic meanings of these prepositions:

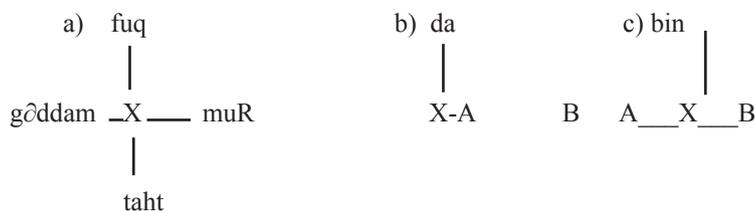


Diagram (a) illustrates the vertical and the horizontal relations of an object in relation to X. The prepositions ‘fuq’ (on) and ‘taaht’ (under) express the vertical relation, depending on whether an object is above or below X, respectively. By contrast, ‘gōddam’ (in front) and ‘muR’ (behind) express the horizontal relations on the assumption that X has a front and a back. On its part, diagram (b) schematizes the relation of closeness of A, compared to B, to X as expressed by the preposition ‘ħda’ (near). And finally, diagram (c) shows the position of X in relation to A and B to be ‘bin’ (between).

The above prepositions do not have the same form as their counterparts in CA. In particular, ‘gōddam’ (in front) and ‘muR’ (behind), though etymologically derived from CA words, their meanings are usually expressed by ‘?amāma’ and ‘xalfa’, respectively. A similar remark can be made about ‘ħda’ (CA ‘bi muħāḏāt’ (beside)), which managed to displace CA ‘qurba’ (near) and become the preposition that expresses the relation of “nearness”. How the latter came to be replaced by the former is a question that has very little relevance to our concerns in the present paper. However, both the MA prepositions and their corresponding CA cognates, though not sharing the forms, express more or less the same meaning, and differ only slightly in their use. Yet, the conception, for example, of what counts as the front or the back of an object may differ widely among the users of the respective languages. Whorf, for instance, explains that, where a relatively big rock stands between an individual and another object, it is more appropriate for that individual to assert in English that the object is ‘in front’ of the rock, and he is ‘behind’ it. In MA, it is rather the other way round. Since nobody speaks CA natively nowadays, it is difficult to check how a native speaker would express a similar statement⁽³⁾. Since ‘front’ and ‘back’, as used with inanimate objects, are metaphorical extensions, we would generally expect languages to vary substantially in this respect. More will be said about these prepositions in the following section.

On its part, the preposition ‘m^ca’, when used for relative position, presents a rather curious case. It seems that it basically expresses accompaniment, though this concept is not restricted only to human or even animate entities, but also to some inanimate objects, as is illustrated by the following example:

5) Ra-h waqḏf m^ca Saħb-u/ l-ħiT/ l-∗ḏŽRa/l-poTo

3. One possible way to gain some insight into the issue is to search for relevant evidence in the work of early Arab writers; but this task would take us beyond the scope of the present paper.

there-3ms standing with friend-his/def-wall/def-tree/def-post

(He is standing with his friend/against the wall/tree/post)

As the English translation of (5) shows, ‘m^ca’ does not always correspond to ‘with’, since it is not appropriate to say in English that a person is standing ‘with’ a post, for example. Yet, ‘against’ does not render the exact meaning of ‘m^ca’ in such cases, for ‘m^ca’ does not presuppose any physical contact with the reference object. It may be claimed that ‘m^ca’ and ‘with’ do not correspond exactly to each other simply because they have different sense relations, as is the case with all vocabulary items. I would rather say that the divergences between the two prepositions exemplified by (5) above are not due to their meanings, but to the different cultural conceptions of objects having a certain degree of height. In MA, walls, trees, posts, and other objects of similar height are spoken about as if they take an erect posture. They can stand or fall, in the same way that humans and other animates can. In this respect, the use of MA ‘m^ca’ differs not only from the English ‘with’, but also from its corresponding CA preposition. In CA, just like in English, it is not appropriate to say that some body is standing ‘with’ the wall, the tree, etc. The quite singular use of ‘m^ca’ will be illustrated further in the next subsection.

2.3- Direction: mn/l, fuq/taht, gōddam/muR, m^ca.

If the prepositions discussed so far express (relative) position when they are used with ‘state’ predicates, those of them which can be appropriately used with predicates of ‘motion’ also express direction. Generally, they specify the point of departure and the destination of an entity, as well as other reference points of the movement.

Perhaps the best examples of prepositions of direction are ‘mn’(from) and ‘l’(to). Like their English equivalents, and much more like their CA cognates, these prepositions signal departure and destination, respectively. When two points of reference are both the point of departure and the destination, ‘bin’(between) is used, as in (6):

6) ka-iSafR bin kaZa u l-RbaT

Imp-travels.3ms between Casablanca and def-Rabat

(He travels a lot from Casablanca to Rabat and back again)

This use of the preposition ‘bin’ to express direction is less frequent than the more basic use of relative position discussed in the preceding section. This fact does not hold for all similar prepositions, however.

Most of the prepositions that express relative position can also express direction. Under the latter use, they specify the path of the movement by providing a reference

point; i.e. by locating the moving entity in relation to another entity or place. The following example is illustrative:

7) daz fuq/ tðht/ gðddam/ muR l-k°dya

went.3ms over/below/in front of/behind def-hill

(He went over/below/from this side/on the other side of the hill)

The fact that these prepositions are equally appropriate with ‘movement’ predicates as with ‘state’ predicates indicates clearly that their meaning is neutral to movement or lack of it. Their meaning is restricted to the specification of the types of horizontal or vertical relation of an object vis-à-vis a reference point.

So is the case with the preposition ‘mca’(with). As with ‘state’ predicates, ‘mca’ is used in a very singular way with predicates of movement. If it expresses relative position in relation to vertical entities, with horizontal entities, it expresses direction. This is best illustrated by the following:

8) m*a m°a l-TRiq/ l-sTðR/ l-ħiT/l-wad

went.3ms with def-road/def-line/def-wall/def-river

(He went along the road/line/wall/river)

In this example, ‘m°a’ is best rendered by the English preposition ‘along’. Neither its English equivalent ‘with’, nor its CA cognate ‘ma°a’ can take acceptably complement nouns such as those in the example above. Again, this is not due to their different sense relations, nor to vagueness or any other semantic concept. As it appears to me, both ‘m°a’ and its English or CA equivalent express the same meaning: accompaniment. What is singular about ‘m°a’ is not so much its meaning as the conception of what can accompany what. As with vertical objects, which are conceived by way of metaphorical extension as taking an erect posture, so are long horizontal entities conceived as moving. In MA, a traveler does not go along the road; rather, the traveler and the road go together. Indeed, it is not only possible to say in MA that a road ‘goes’ to a certain destination, ‘passes’ through a landscape or by a landmark, and ‘turns’ left or right at a certain point, but I can think of no other way to express the same ideas in this language. Therefore, it seems that the use of a preposition is not determined solely by its meaning, but also by the meaning of its complement, which may be laden with cultural content.

All in all, although the physical characteristics of space are accessible to the senses, the spatial uses of prepositions in related and unrelated languages may differ widely. This divergence is the result not only of the number of prepositions, which varies from one language to another, but also of the different cultural conceptions

of space. The cultural factor is expected to be more prevalent and more obvious in abstract relations in which case the senses are of very little help. Such is the case of time, to which we turn immediately.

3. Temporal uses.

MA objectifies time, just like CA or what Whorf (1939) calls “Standard Average European” (i.e. languages), or maybe all the languages of the Near East and the Mediterranean which have been in direct or indirect contact with each other since prehistory. In these languages, the time cyclicity is dissected into time units (viz. days, months, years, etc.) which can be counted, identified in relation to each other, and more importantly, used to identify other events. Speakers of these languages are so accustomed to talking about days, for example, in the way they talk about friends, stones or any other quantifiable entity that they can envisage no other way to do so. However, Whorf (1939) has pointed out that Hopi and other Amerindian languages do not count time units because these are not even nouns. According to Whorf (1939:143), “they are a formal part of speech by themselves, distinct from nouns, verbs, and even other [...] adverbs.” Yet, although the languages of the Old World treat time in a common way that differs radically from that of the languages of the New World, they also differ from each other in many respects. The bulk of these differences (or similarities) is uncovered by the temporal uses of prepositions. The discussion below provides some illustrations.

3.1. Time as container.

Most time expressions in MA can co-occur with the preposition ‘f’(in). As was explained in the preceding section, this preposition is used basically to express location in a three-dimension space. Apparently, the use of this preposition with time expressions is a metaphorical extension of the spatial meaning. Let’s consider the following example:

9) ka-ixdðm f l-Sbaħ/ l-lil/ l-Sif/ maRS
Imp-work.3ms in def-morning/def-night/def-summer/March
(He works in the morning/the night/summer/March)

Since these time expressions refer to periods of time, they seem to be treated on the same footing as spatial expressions such as ‘forest’, ‘room’, or even as ‘field’, ‘city’, etc. An event is said to happen, so to speak, **in** such periods of time. Like a place, a period of time is also circumscribed by edges or borders, though these may be equally fuzzy for time as for space. Thus, a day, for example, is the period that lasts

‘mn l-Sbaḥ l-c*iya’(from the morning to the evening), or that which is ‘bin l-Sbaḥ u l-c*iya’(between the morning and the evening). Again, a time period is spoken of in terms of expressions of space and defined as the ‘distance’ between a point and another. Up to this point, MA seems to have a lot in common with CA and English and many other languages as far as the temporal uses of prepositions are concerned.

However, some points of divergence are to be noted. For example, both CA and English treat moments of time as ‘points’, as is revealed by the use of the prepositions ‘cind’ in CA and ‘at’ in English. In MA, the corresponding preposition ‘cōnd’ is unacceptable with complements denoting specific moments of time. Indeed, a few other prepositions are used in these contexts, among which is ‘f’(in), as illustrated by (10):

- 10) mat f l-sḍbca/ l-fžḍr/ rḍm*ḍt cin
died.3ms in def-seven/def-dawn/wink.Gen eye
(He died at seven/dawn/in a wink=quickly)

The use of ‘f’(in) in this example seems to indicate that moments are also conceived in MA as ‘containers’ of events, much like periods. In a tradition where time is often depicted as a line on which ‘points of time’ are marked, examples like (10) are rather peculiar. But alternatives to the linear representation of time are quite conceivable, as will become clear when we consider other prepositions.

3.2. Time as companion.

The reader must recall the use of the preposition ‘mca’(with) with complements denoting long horizontal objects such as roads, rivers, lines, channels, etc. to express accompaniment. It was pointed out in this connection that these objects are conceived of in MA as moving along with other entities being located in relation to them. It is often the case that the same preposition can also be used with time expressions as complements, as the following example testifies:

- 11) fḍq-t mca l-tlata/ l-fžḍr/ Tluc l-*ḍm*
woke-1s with def-three/def-dawn/rise def-sun
(I woke up at three/dawn/sunrise)

Some of the prepositional complements in this example obviously denote events. Such is the case of ‘Tluc l-*ḍm*’(sunrise). At least in such cases, there is a sense in which the preposition ‘mca’ expresses simultaneity of two actions, e.g. the processes of rising from bed and sun rising happened simultaneously. In some cases, it is possible to omit the action noun when the subject and the prepositional complement are understood to do/have done the same thing, as in (12):

12) bðyyðt mca l-TyuR

slept.3ms with def-birds

(He went to bed at the same as birds)

As the English translation suggests, (12) does not mean that the person in question slept with birds, but only that he went to bed as early as birds get back to their nests. If the prepositional complement in this example is replaced by a time expression such as 'l-sðbca' (seven), the sentence would mean something like: His going to bed and the clock striking seven happened together.

There is some evidence in support of this apparently unusual interpretation. Firstly, while the preposition 'mca' (with) does occur with expressions denoting points of time, it cannot occur with expressions denoting relatively long periods. Thus, the following example would not be well-formed if the more usual preposition 'f' (in) is replaced by 'mca':

13) ka-iSafðr f/*m^ca maRS/ l-Sif/ l-wikand

Imp-travel.3ms in/*with March/def-summer/def-weekend

(He leaves on holiday in March/summer/the weekend)

It seems that accompaniment is excluded between long actions and periods of time. Secondly, even when 'mca' occurs with periods instead of points of time, there is a difference between the meaning this preposition would issue and that of 'f' (in). In (14), for example, 'f' indicates that the person in question arrived sometime in the morning, between early morning and midday; whereas 'mca' can only be interpreted as meaning early morning:

14) wSðl f/m^ca l-Sbañ

arrived.3ms in/with def-morning

(He arrived (early) in the morning)

On the other hand, when the time expression denotes an event/action used as a time reference, only 'mca' is acceptable, as (15) shows:

15) ža mca/*f Tlu^c l-*ðm*

came.3ms with/*in rise def-sun

(He came at sunrise)

Here, sunrise is considered as an event, not as a period or as a point in time; therefore, it is not congruent with 'f' (in). By contrast, 'mca' indicates clearly that the action of coming (or, more precisely, arriving) and sunrise happened at the same time. The last piece of evidence concerns the way of speaking about units. In MA, it is

perfectly acceptable to say of two events that they ‘came’ (i.e. happened) ‘together’, as in the examples below, where it is possible for the noun phrases to exchange positions without much effect on the meaning of the sentence:

16) a- *ža l-ʕid mca Ras l-cam*

came.3ms def-Aid with head def-year

(The Aid was celebrated on New Year’s Day)

b- *ža RðmDan u l-ʕuTla m^ca bð^cDiyat-hum*

came.3ms and def-holiday with some-their

(Ramadan and the holiday came with each other=at the same time)

It is obvious from these, and other similar, examples that time ‘happens’ simultaneously with events, and that this simultaneity is expressed not only by the preposition ‘m^ca’, but also by other ways of speaking exemplified by (16) where the same metaphor is perhaps more perspicuous.

The temporal use of the preposition ‘m^ca’(with) to express accompaniment, like its spatial use, has been shown to be quite singular, when compared with the English equivalent or with the more related CA cognate. Once again, we reiterate the argument already advanced above that the different uses of the corresponding prepositions in these languages cannot be accounted for only by their sense relations (or meaning), but more importantly by the different cultural conceptions of simultaneity of events and time. The next subsection will show that distant languages may exhibit similarities that may not be found in related languages.

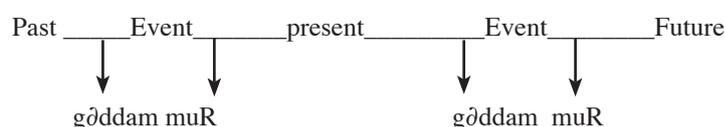
3.3. Time as a traveler.

Lakoff & Johnson (1980:Chap.9) have shown that English organizes time in such a way that the future is in front and the past is behind. Time is spoken of as if it is moving in the opposite direction of people, or as if it is stationary while people are moving through it. Much of their description holds also for MA.

In MA, as in English and CA, the identification of the here-and-now, or indeed all sorts of events, is made metaphorically in terms of spatial relations. Thus, an event is ‘near’ the present or ‘far away’ into the future or the past, another ‘has come’ (wSðl) or ‘is gone’(fat), days ‘are gone’ and others ‘have come’ (m*at yyam u žat yyam). Yet, time does not wander in every direction. Time is a traveler who is ‘walking’ and sometimes ‘running’ on a straight line, not to by-pass people, but to reduce the ‘distance’ between them and the future events which function much like milestones. To this purpose, time is moving in the opposite direction. In MA (or should we say Moroccan culture?), it is often time that moves while people, like things, are stationary.

It is only after moments of reflection, as on the occasion of a person's death, that Moroccans express the wisdom that time is eternal and that it is their lives that are corroded by the passage of the 'untrustworthy' time.

Time is also personified as if it has a face and a back. While CA has a pair of time prepositions indicating anteriority (viz. 'qabla'(before)) and posteriority (viz. 'ba^cda'(after)), MA makes little use of their cognates 'qb^l' and 'b^od', which are often replaced by their corresponding spatial prepositions 'g^oddam'(in front) and 'muR'(behind), respectively. The front of a future event is nearer to the present than the front of a past event, while the back of a future event is farther from the present than that of a past event. This fact is illustrated clearly by the following figure:



The use of these prepositions uncovers the tacit conception of events as travelers facing individuals, but as soon as these events are over, they turn their back to them, and continue their way in the same direction. This conception is perfectly coherent with the idioms discussed in the preceding paragraph, and many others not mentioned here because of space and time constraints. Therefore, what is crucial is the underlying conception which is only partly uncovered by the temporal uses of prepositions. It is this implicit principle that makes these uses of prepositions highly structured and predictable.

It should be pointed out that there is nothing natural about the above mentioned conception of time. If two languages as distant as MA and English express the same conception of time, this by no means implies that all languages will also share this characteristic. Besides, there are many features that set MA apart from English and even from CA. For example, both English and CA have time prepositions, but do not have recourse to spatial prepositions to express anteriority and posteriority, as MA does. In English and CA, what uncovers the metaphor of time as a moving object is not so much the use of prepositions as the use of other expressions such as "the preceding ...", "the following ...", etc., when used with time expressions. One may venture to say that the time metaphor is more articulated in MA than in English or CA. The question that needs to be answered here is: Why should MA make little use of (or even dispense with) the time prepositions it has inherited from CA when these are more efficient in expressing time relations than the corresponding spatial prepositions? I shall try to find a possible answer right away.

Acculturation.

Now that we have presented some facts about the spatial and temporal uses of MA prepositions, and after we have discussed the metaphors which underlie the various uses of these prepositions, two different but related questions need to be raised. First, how come that MA prepositions can sometimes be used in such a distinct manner from their CA cognates as if the two languages were unrelated. Second, is it really the case that the uses of prepositions reveal a certain world-view or is the whole matter completely arbitrary? The two questions will be answered separately in the following subsections.

4.1. The Amazigh effect.

Historical linguists have been more concerned with 'blind' sound changes than with semantic changes affecting individual lexical items. But it is the semantic aspect of language that brings linguistics together with the other behavioral sciences. Concerning language contact, the phenomenon of borrowing has traditionally received far more attention than semantic calques in view of the dramatic effect it may have on the phonological system of the recipient language, especially if the number of unassimilated loans is very great. Yet, the cultural system may infiltrate not only the recipient language, which is often the language of the less powerful culture, but the donor language, which is usually the language of the dominant culture, may ultimately succumb to the weaker culture.

Such seems to be the case of MA. Apart from some sound changes that have resulted in a few cases of homophonous prepositions, MA has inherited the CA prepositional system in its entirety. No foreign preposition has been introduced into the language. Yet, MA prepositions sometimes diverge semantically so widely from their CA cognates that the only thing that seems to relate them to each other is their form. What is the reason behind this drastic change? The answer seems to come from contact with the Amazigh language. Arabic was introduced gradually in Morocco throughout long periods of history, first by conquerors and then by successive waves of migrants. But the number of the native Amazigh speakers remained, until relatively recently, larger than that of native Arabic speakers. This fact indicates that a large number of those who speak MA natively today are either children of Amazigh-Arabic bilinguals or are themselves bilinguals in the two languages. It would be worth considering the question of whether MA and Amazigh share some of the uses of prepositions discussed above.

To begin with, there are no temporal prepositions in Amazigh. Anteriority and posteriority are expressed by the spatial prepositions denoting the 'front' and 'behind'

relations, respectively. This is in total agreement with the fact that MA makes little or no use at all of the temporal prepositions inherited from CA. In fact, it is probable that different speakers make different uses of these temporal prepositions and their corresponding spatial ones. If this is the case, it is expected that bilinguals will use temporal prepositions less often than monolinguals will, and that among monolinguals themselves, those who contact Amazigh-speakers frequently will use such prepositions less often than those who do not.

Most of the divergences between MA and CA pointed out in the preceding sections can be explained by the former's contact with Amazigh. For example, the use of the preposition 'mca'(with) to express simultaneity is also attested in Amazigh. In this language, the preposition 'agð'⁽⁴⁾(with) is often used instead of 'g'(in) to indicate that two events happened at the same time, and that points of time are also events that 'occur'. Some typical cases are provided in (17):

- 17) bði-x agð ssðb^ca/θifawθ/unbðu
 start-1s with seven/morning/summer
 (I started at seven/early in the morning/early in summer)

Like the MA example in (11) above, (17) indicates that the action of starting happened simultaneously with the following temporal reference points. It is for this reason that 'θifawθ' and 'unbðu', as the English translation indicates, are understood to mean 'early in the morning' and 'early in summer', respectively. In comparison, the use of the preposition 'g'(in) would mean that the event happened somewhere in the middle of the periods in question.

Similarly, while the MA 'm^ca', as a spatial preposition, is semantically different from its CA cognate, it matches perfectly with its Amazigh equivalent 'agð'. Like 'm^ca', 'agð' is used to locate two entities in a vertical position in relation to each other. The example in (8) above, repeated here for the sake of convenience, translates easily into Amazigh, almost word for word, whereas a similar translation into CA would require the substitution of the preposition by another one:

- 8) m*a m^ca l-TRiq/ l-sTðR/ l-ħiT/l-wad
 went.3ms with def-road/def-line/def-wall/def-river
 (He went along the road/line/wall/river)

This remark is equally true for the use of this preposition with long entities in a horizontal position to express direction. In Amazigh, as in MA, it is quite normal to say that a person is going 'with' a road/river/line, etc. Moreover, this type of Amazigh prepositional phrases occurs not only with the verb 'ddu'(go), but also, and

more frequently, with the verb 'mun' (accompany). This fact suggests that in this language, the road and the traveler are conceived of as companions; after all, the word for 'companion' in Amazigh is derived from this verb by prefixation (viz. 'asmun'). Examples in which MA and Amazigh prepositions are used in exactly the same way are numerous. What needs to be done is to explore the relevant implications of this almost perfect prepositional matching between MA and Amazigh.

4.2. Metaphorical coherence.

A number of questions impose themselves on the analyst when faced with such kind of data as we have discussed in this paper. Among such questions are: Are these phenomena simply an aspect of interference, just like phonological or grammatical interference, generally noticed in bilinguals as a result of imperfect learning? If not, in what respect does semantic interference differ from the other types of interference? Does the use of prepositions really reflect some underlying conceptions (of time and space, for example) or is it arbitrary? If the use of prepositions does reflect such conceptions, what kind of relationship is there between these conceptions and the linguistic expressions in which they are couched? No exhaustive answers to these questions will be attempted here, but some treatment of our data must be provided in the light of these theoretical concerns.

First of all, the metaphorical uses of MA prepositions discussed above are coherent. To take the example of 'm^ca'(with) once again, this preposition is consistent not only with the established uses, but also with innovative ones. Thus, it may be that such expressions as "to stand 'with' the tree or the wall" have been handed down through generations, but the occurrence within similar expressions of nouns denoting new objects (e.g. MA 'poTo' post) must surely indicate the existence of some structuring principle. Similarly, the fact that 'a line' (on paper) is treated in MA in the same way as a road or a river points to a similar conclusion, for writing on paper, and much less on lined paper, was not very much in use among Moroccans in the past. If someone says in MA something equivalent to "X is standing with his garden" or "X is walking 'with' his field", he will be immediately spotted out as a non-native speaker. Does this simply indicate that that he has not yet grasped the meaning of the preposition 'm^ca'(with)? Without going into the interminable debate concerning

4. The term Amazigh is a recent coinage to refer to a continuum of sometimes unintelligible dialects. This continuum was traditionally divided into three major dialect groups known as Tarifit, in the north of Morocco, Tamazight in the middle, and Tashlhiyt, in the south. In this paper, reference will be made to the Tamazight variety.

meaning, sense, intension, extension, etc., I believe that there is more to the issue than just learning the meaning of a preposition; the non-native speaker will have failed to assimilate the geometrical characteristics of things that can be said in MA to ‘stand’ or ‘go’. That is why I have occasionally pointed out above that the appropriate use of a preposition is not determined only by the sense relations of that preposition, but also by the nouns with which it can combine, i.e. to form permissible collocations.

Furthermore, the fact that some of the prepositional uses in MA are metaphorical is corroborated by independent evidence. For instance, the use of ‘m^a’(with) in combination with nouns denoting vertical or horizontal objects is further supported by other expressions indicating that these objects are conceived of as ‘standing’ or ‘going’. These are some illustrative examples:

- 18) a- wðqqf-u /Tðyyħ-u /nðεεs-u/ l-poTo
 Put up-3mp/put down-3mp/lied-3mp/ def-post
 (They have put up/lied down the post)
 b-žay-a/ ġad-a l-TRiq Tðwwala
 coming-fem/going-fem def-road straight
 (The road is straight)

The verbs ‘wqðf’(stand up), ‘wðqqðf’(put up) and the participle ‘waqðf’(standing) are used indistinguishably with animate as well as with inanimate entities. Similarly, the participles ‘žay’(coming) and ‘ğadi’(going) used in (18b) with ‘TRiq’(road), are items that can also be used with animate subjects. This argument has already been made at different points in this paper, not only in connection with MA, but also with Amazigh, and the examples from both languages could be multiplied. It remains to be pointed out that, if a preposition is used in a similar manner in both languages, it is because the same metaphors underlie and structure the conceptions of space and time in these languages.

Indeed, if such metaphors can be claimed to uncover the world-view (i.e. culture) of a people, then both MA and Amazigh can be claimed to reflect one and the same culture (viz. the Moroccan culture), considering that the two languages share a large number of metaphors similar to those exemplified in this paper. If this argument is tenable, it could be held that culture, or at least part of it, exists independently of the language in which it is couched. In other words, when Arabic-speakers in Morocco started to use items of their language in ways other than those prescribed by their linguistic system, they had already assimilated a different world-view. How the process of assimilation or acculturation was activated and by what means it was carried out is beyond the scope of this paper, and I will not pursue this point any further.

To sum up, the following points should be retained from the preceding discussion. First, metaphorical uses of MA prepositions reveal some underlying conceptions of spatial and temporal relations, and these uses are consistent with other types of metaphorical expressions denoting space and time. Second, while MA has a lot in common with Amazigh in terms of preposition use, its divergences from CA are wide. This fact is indicative of the impact of Amazigh on MA even in cases where lexical borrowing is not involved. The implications of these findings on the relation of language and culture, though slightly touched upon in the present paper, need to be investigated in more depth in future research.

5. Conclusion.

This paper has been concerned with the spatial and temporal uses of MA prepositions, with special focus on metaphorical extensions that reveal some tacit, but significant, conceptions of space and time. In this respect, the distinction between ‘meaning’ and ‘use’ emerges as a necessary theoretical tool in order to account for MA prepositions. More specifically, the appropriate use of these prepositions is not determined by their meaning alone, but also by the noun phrases that can function as their complements. Since MA prepositions differ widely from their CA cognates in use (though not necessarily in meaning), and match perfectly with their Amazigh equivalents, the conclusion that MA and Amazigh reflect the same world-view seems logical. It follows that the change exhibited by the semantics (or shall we say ‘pragmatics’?) of MA prepositions must have been preceded and caused by cultural change. Further research in the domain of foreign language acquisition will certainly contribute to a deeper understanding of the relation between language and culture.

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