## The Medio-passive in Moroccan Arabic: Diachronic change and synchronic structuring

Ahmed Ech-Charfi

Mohammed V University in Rabat

This paper provides a preliminary semantic description of the verbal category referred to in modern grammar books of Moroccan Arabic (MA) as the "medio-passive". This category is distinguished by the medio-passive marker 't-' that is prefixed to a verb stem to express a variety of grammatical meanings. The origin of this prefix can be traced back to a similar morpheme in Forms V, VI and VII of the verb in Classical Arabic associated with reflexive, reciprocal, resultative and similar meanings. Most of these meanings still survive in the MA medio-passive form, which is also used to express the passive. Following the classification suggested by Kemmer (1993), this paper discusses four major uses of the medio-passive in this variety. These are the passive, the reciprocal, the reflexive, and the middle uses. The description is intended to serve as a   basis for future comparison of the medio-passive in MA with its counterparts in other languages and the role diachronic change plays in shaping this grammatical category.

## 1. Introduction

Linguistic typologists have shown particular interest in the rise and fall of voice systems in general and of the middle system in particular. One of the most interesting issues relating to voice systems concerns the interaction between diachronic change and synchronic semantic restructuring. The main issue could be formulated more specifically as follows: if sound change is assumed to be "blind" to semantic oppositions, how does it affect the voice categories of a language once the morpho-phonological oppositions expressing those categories have been changed or neutralized? Sound change has a number of repercussions that deserve to be investigated, one of which concerns the semantic/pragmatic status of the categories expressed by voice and their relative cognitive primacy. In other words, are the voice categories that emerge after sound change completely arbitrary (i.e. governed only by the sound change) or do they reflect semantic/pragmatic categories that  are deeply anchoredin  human cognition? If the second possibility is favored, the diachrony of voice systems would provide a good opportunity to have a glimpse of the interface between linguistic structure and its representation in human cognition.

Recent works on the middle voice within the framework of linguistic typology have been significantly influenced by Functional and Cognitive Linguistics. Their objective is not only to describe the different meanings expressed by voice categories in different languages and formulate implicational hierarchies concerning the status of the middle in relation to other voice categories such as the active and the passive, but also to explain the hierarchies by making reference to semantic/pragmatic factors and, on the basis of that, make inferences as to how different voice categories are cognitively represented1. Such works are also interested in the different meanings generally associated with the middle category. In this respect, the middle meanings have been found to be closely related to those expressed by the reflexive, the reciprocal, and the passive forms. These forms are often viewed as strategies of defocusing the Agent in an event, to varying degrees, by demoting the nominal expression

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[1] This perspective demarcates clearly from the formal approach, such as that of Generativists, which compares related structures in different languages with the purpose of hypothesizing a universal (and allegedly innate) syntactic architecture for those structure (for a treatment of the medio-passive within this framework, see Bahloul 2008; Al-Rasheed 2012; and Loutfi 2017, among others). A comparison of this approach with that of typologists adopted here is beyond the scope of the present paper.

referring to it from the subject position to the oblique or suppressing it altogether. In consequence, they result in the transformation of a transitive verb into an intransitive one. For this reason, it is no surprise that the middle marker is often found to originate from the reflexive pronoun, as is the case in Romance languages, for example.

The relation between the middle and the passive, however, seem to need more attention. According to Alexiado and Doron (2012), languages can be classified into three types depending on how they mark morphologically the non-active voice: (i) languages like Classical Arabic and Hebrew, which distinguish between the passive and the middle voices; (ii) languages which mark the middle but not the passive, like Modern Greek, and (iii) languages which mark the passive but not the middle, like English. Of the three types, the second, represented by Modern Greek (see also Manning, 2000), is perhaps the most similar to the voice system of MA, as described in this paper. But the term "medio-passive", usually used to refer to this type of non-active voice is perhaps not homogeneous, in which case more comparative studies of languages within this category would be urgent before a rigorous definition of the "medio-passive" voice can be formulated.

To illustrate this idea, we probably need to provide a definition from the literature. In this respect, the following quote from Alexiado and Doron (2012) could be useful:

> MEDIO-PASSIVE is different from the passive in that it shares the morphology of the middle Voice. It is nevertheless similar to the passive in that it allows the participation of the external argument of the active Voice. Yet, unlike the passive, where the external argument is required, the medio-passive allows this argument but does not require it. Medio-passives thus also share properties with anti-causatives, where the external argument is not included in the derivation. [5]

In this quote, a distinction is made between the medio-passive and the passive (e.g. *the door was opened*), on one hand, and between medio-passive structures and anti-causatives (e.g. *the door opened*), on the other. Both distinctions are couched in syntactic-semantic terms, but it is not clear in the medio-passive system, in which the middle and the passive share the same marking, whether the extension is from the middle to the passive or the other way around. It is possible that this type of non-active voice developed from different sources in different language. This discussion will be resumed in section 4 below.

MA is one of the modern Arabic varieties in which grammarians have identified a "medio-passive" voice, as opposed to the active voice (cf. Harrell, 1962). In MA2, the passive as well as the uses usually associated with the middle category are all expressed by one and the same marker, namely the verbal prefix t-. This prefix most probably originates from an equivalent one found in three verb forms of Classical Arabic (CA) or some related varieties. The three verb forms are associated with meanings similar to some of the meanings associated with the middle voice in the literature. Since CA has a separate form for the passive as well, the study of the MA medio-passive will enable us to understand the development of its voice system in which the markers of the passive and the middle are conflated. Since this conflation is a consequence of a "blind" sound change, it would be of some theoretical interest to see whether it results in a coherent semantic/pragmatic category. If it does, it will also enable us to infer the relative primacy of the passive and the middle.

The framework within which the medio-passive in MA will be investigated is that of linguistic typology. Generally, typologists work on data collected from a large number of languages belonging to

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2 Moroccan Arabic is a cover term for the dialects of Arabic spoken in Morocco. These dialects can be heterogeneous enough to cause communication breakdowns, as can be the case between speakers of the far north and those of the far south. In this paper, the data is drawn essentially from the central varieties, especially those spoken between Marrakesh to the south and Fez to the north.

different language families and from different geographical areas in order to control for similarities that could arise from genetic relations or from language contact. This methodology, however, does not serve well the objective of the present study, which is to provide a preliminary description of the morpho-syntax and the semantics of the medio-passive in MA, a structure that has not received due attention in the literature. It will also discuss the rise of this structure in diachrony within a comparative approach in order to see whether the uses of the medio-passive category is a homogeneous semantic category or results only from "blind" sound change. But despite being preliminary, the description will be informed by influential works on the middle and the passive voices adopting a linguistic typology approach (e.g. Allan 2003; Haspelmath 1990; Klaiman 1991; Kemmer 1993 among others).

This paper will be articulated in three main sections, in addition to this introductory section. Section 2 will discuss briefly the diachronic origins of the MA medio-passive marker (MPM). Section 3 will be devoted to its various uses, namely, the passive, the reciprocal and the middle; these will be discussed in different sub-sections. Section 4 will consider the status of the passive in relation to the other components of the "medio-passive" category in the light of MA data discussed in the preceding sections. Finally, section 5 will conclude.

## 2. Diachronic origins of MPM in MA

Although it would not be very accurate to claim that modern Arabic dialects descend from CA because this standardized variety began to crystallize only after Arab conquests and settlements, it is most likely that their ancestor(s) had a verbal system that was very similar to that of CA. As in other Semitic languages, the Arabic verb is constituted of a consonantal root and a morphological pattern conventionally referred to as "Form" (cf. Wright 1896; Ryding 2005). One of those patterns is basic and is often tri-consonantal while the others are derived from the basic one through different morpho-phonological processes. Most relevant among them are Forms V, VI and VIII, which have a *t-* affix.

Form V can be characterized as the reflexive of Form II. Form II is derived from Form I by the doubling of the medial consonant (*faʕʕal*[3]) and is often associated with the causative of the basic form (e.g. *nazal* 'to come/get down" vs. *nazzal* 'to put s.t. down'). Morpho- syntactically, Form II results in turning an intransitive verb into a transitive one or into a di-transitive one, if the basic form is mono-transitive (e.g. *daras* 'to study' vs. *darras* 'to teach s.o. s.t.'). In comparison, the affixation of Form V *ta-* to Form II (*tafaʕʕal*) indicates that the action is carried out on oneself; that is, Agent and Patient are understood to be one and the same entity, although morpho-syntactically, Form V verbs are intransitive. Other related meanings of this form include the resultative (e.g. *takassar* 'to be broken'), gradual change (e.g; *taħassan* 'get better') and acquisition or imitation of a quality (e.g. *taʔaddab* 'to act courteously).

In comparison, Form VI (*tafaaʕal*) is more related to Form III (*faaʕal*). Form III is derived from the basic form by the lengthening of the first vowel and is used to express "associative" meanings, that is, situations in which more than one person is involved in the action (e.g. *ʃaarak* 'to share; to participate'). But although the "associative" meaning may be the most salient use of this form, there are other uses that depart from it in various respects. Likewise, Form VI has the reciprocal as probably the most typical of its uses, though there are others that can hardly be considered reciprocal. Thus, the difference between *ʃaarak* and *taʃaarak*, for example, lies in the fact that Agent in the second verb event is also Beneficiary because the action is reciprocal while the first verb carries no such implication. Because of this difference, the subject of Form VI verbs is often in the plural form when the action is reciprocal; otherwise, the preposition *maʕa* (with) is used to introduce the nominal referring to the second participant in the event. Other non-reciprocal uses of Form VI include pretending (e.g. *taʒaahal*

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[3] A note on transcription: apart from minor adaptations, the transcription of the MA data will use IPA symbols

'feign ignorance'), gradual increase in a quality (e.g. *takaaθar* 'become numerous') or a movement (e.g. *tasaaraʕ* 'accelerate').

The third possible source of the MPM in MA is Form VIII. This form is derived from the basic one through the infixation of "t" after the initial consonant (*ftaʕal*). The meanings it conveys are too various to form a homogeneous class but its typical use seems to be an action that benefits the controller, as in *iktasaba* (to earn). It can also have a reciprocal use (e.g. *iʒtamaʕ* 'to gather' from *ʒamaʕ* 'to put together') or a resultative use (e.g. *iħtaraq* 'to burn').

The MPM marker in MA possibly derives from the affix "*t*" of the three forms discussed above. One of the diachronic processes that contributed to the development of North African varieties of Arabic in general is vowel reduction and/or deletion. In MA in particular, CA long vowels correspond to short ones, while short vowels are deleted (or reduced to schwa in closed syllables). As a consequence to this sound change, CA Forms V and VI both ended up with an initial *t-*. Form VI, however, maintained a short vowel as a reflex of its long equivalent in CA; viz. *tfəhhəm* 'to understand' vs. *tfahəm* 'to come to mutual understanding'. As we will see later, MA verbs such as *tfahəm*, which correspond to Form VI verbs in CA, form a sub-class both semantically and morpho-syntactically, although they take the same MPM as other verbs do.

If the MPM can be derived from the prefix of Forms V and VI in a straightforward way, its relation to the infix of Form VIII, however, deserves some comment. By itself, vowel change would predict that a CA verb like *iftakar* 'to remember' would be realized as *fətkər*, but its actual form is *tfəkkər*. Therefore, Form VIII verbs must have been reanalyzed at some point in time as being related to Form V verbs; the two classes of verbs share a lot of semantic similarities that could have encouraged the analogy. The shift of the "t" from an infix to a prefix is very likely the result of such analogical change.

There is another verb form in CA that should also be mentioned in this connection, which is Form VII. This form has the pattern *nfaʕal*, as in *inkasar* 'to be broken' and, like the previous forms, can have reflexive, resultative, passive or medio-passive meanings (Ryding, 2005). By virtue of this, the prefix "n-" is no less a candidate to be the MPM than "t-". Indeed, many modern Arabic dialects make some use of this prefix, though its distribution relative to "t-" has not received much attention. In most varieties of MA, however, Form VII verbs correspond to verbs with the prefix "t-". Thus, the resultative *inkasar* becomes *tkəssər*, and the reflexive *inqasam* becomes *təqsəm*. It is possible that the prefix "n-" changed into "t-" by analogy.

In brief, what constituted four different verb forms in CA, with different but related meanings, have merged into a single category unified by the prefix t- in MA. This unification resulted from "blind" sound change as well as from analogical change. What we should consider now is whether the resulting formal category forms a semantic/pragmatic category.

## 3. Uses of the Medio-passive

The traditional term "medio-passive" used to refer to the verbal form with the prefix t- in MA suggests that this form has a passive and a middle use. Works on the middle voice, however, argue that the middle should be distinguished from the reciprocal and the reflexive uses (cf. Faltz 1985, Geniušiene 1987, Kemmer 1993; see also the papers in Ekkehard and Volker 2008, among others). In what follows, we will adopt this view and discuss the passive, the reciprocal, the reflexive and the middle uses separately.

**3.1 The passive**  In CA, the passive form of the verb differs from its basic form only in vowel quality. The passive always has a "u-i/a" vocalic melody in tri-consonantal verbs; e.g. *qatal* 'killed' vs. *qutil* 'was killed' (cf. Wright, 1896; Holes, 2004, among others). Since vowel reduction and/or deletion is one of the major sound changes that contributed to the development of MA, as was pointed out earlier, the opposition between the active and the passive forms was neutralized, a fact which required an

alternative way of expressing the opposition. Today, MA uses the same prefix discussed in the previous section to express the passive. In fact, the passive seems to function as the most salient uses of the prefix "t-".

Shibatani (1985) characterizes the passive prototype in terms of pragmatic, semantic, syntactic and morphological properties. The pragmatic function of the passive is to "defocus the agent" in such a way that no reference is made to it. Semantically, the prototypical event type that is passivized should be constituted of Agent whose volitional action affects Patient. In terms of syntactic encoding, Patient is promoted to the position of the subject while Agent receives no formal encoding. Morphologically, the predicate should bear some encoding of the conceptualization of the event type described in a way that distinguishes it from the active predicate.

In MA, these properties can be found in simple verbs that are inherently transitive as well as in derived causative verbs. Examples of the first class include *qtəl* 'kill', *ḍrəb* 'hit' and *kla* 'eat', while the second class can be exemplified by *ɣəssel* 'wash the dead', *ħəmməṛ* 'roast'and *məlləħ* 'to salt' (Measure II verbs). These and similar verbs can easily be turned into the passive without producing any kind of anomaly, as in this example:

(1)     tə-qtəl[4]     r-rays
        MPM-kill     DEF-president
        'The president was killed.'

The subject in this sentence refers to the entity that underwent the action of killing (i.e. Patient) while Agent is never mentioned, irrespective of whether it is known or not, unlike the case of the English passive in which the agent can occur in *by*-phrases.

The passive can also be used in less prototypical cases, as is the case in many languages of the world. These cases include verbs of saying, perception, cognition, emotion and others. The following examples illustrate the sense in which these classes of verb events are less prototypical than those discussed in the previous paragraph:

(2)     t-gal         had    l-klam
        MPM-say    this    DEF-speech
        'This was said.'

(3)     t-ʕəṛf-at              smit-u        l-ħqiqija
        MPM-know            name-his    DEF-true
        'His real name became known.'

In example (2), although the existence of an agent is implicit, namely the person who expressed the idea, the idea is not an entity which was affected by the act of saying, but rather one that was effected by it. Similarly, the verb *ʕṛəf* 'know' in (3) does not describe an action that Agent performs on Patient in the literal sense, but rather denotes a cognitive event in which an idea is shared with other individuals; the passive form merely foregrounds the act of sharing while, at the same time, backgrounding the individuals with whom the idea is shared.

But although the prototype of the passive can be extended metaphorically to less prototypical cases, there are limits to this extension. For instance, not all verbs of emotion can undergo passivization, as is indicated by the following examples:

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[4] The schwa is not phonemic in MA; in all the examples in the paper, it is inserted for phonetic reasons only; viz. in closed syllables.

(4)        had    l-klam       ma    ka-i-t-bɣa-ʃ
           this   DEF-speech   NEG   IMP-3MS-MPM-like-NEG
           'This kind of speech is not liked.'

(5)        *t-ʕʒəb-t          bi-ha
           MPM-like-1S        with-3FS
           *'She was liked by me.'

Although *bɣa* and *ʕʒəb* are more or less equivalent semantically, the first can be passivized, but not the second. It should be pointed out that the equivalent of (5) in CA is perfectly correct and frequently used. Actually, there are cases of passive forms which were attested in CA but not in the closely related Modern Standard Arabic (cf. Saad, 1982). This fact indicates that language change can and does affect peripheral cases of the passive.

Another semantic class that seems to resist passivization includes what may be called "change of state" verbs. These are mostly of Measure[5] II form which indicates that Agent caused Patient to change health, posture, location, etc. Examples of such verbs are listed below:

(6)  Measure II verbs

| Verb | Gloss | Verb | Gloss |
|------|-------|------|-------|
| məṛṛəd | 'make sick' | gælləs | 'have s.o. sit down' |
| bəṛṛa | 'cure' | bəʕʕəd | 'take away' |
| xərrəʒ | 'put out' | ɣælləḍ | 'make fat' |
| qəṛṛəb | 'bring closer' | xəwwəf | 'frighten' |
| dəxxəl | 'let in' | wəqqəf | 'erect' |

The result of these causatives is usually expressed through the corresponding Measure I form rather than the passive. Thus, instead of *t-məṛṛəd* 'he was made sick', for example, the simple form *mṛəd* 'he got sick' is often more preferable. But as usual, there are lexical idiosyncrasies that escape this generalization. For instance, while *bəṛṛa* 'to cure' rarely, if ever, occurs in the medio-passive form, its synonyms *dawa* and *ʕalʒ* usually do. These, however, do not belong to the Measure II class, and it is not clear whether or not this has any role in their behavior towards passivization.

**3.2 Reciprocals** In addition to the passive, the MPM in MA is also used to express reciprocity. Like the passive, the reciprocal is very productive. Any verb can take the *t-* prefix to indicate that two or more participants stand in the same relation to each other provided that: a) the verb has the appropriate template and b) its lexical semantics allows for reciprocity.

The reciprocal form of the verb is typically *t-faʕəl,* if the root is strong, or *t-faʕa,* if it is weak. This form corresponds to Measure IIIa in Harrell (1962). Thus, from the root √dṛb (to hit), the reciprocal *t-daṛb* (to fight) is derived. Similarly, the reciprocal of √ʒra (to run) is *t-ʒara* (to compete in a race). However, when the derivation of *t-faʕəl* or *t-faʕa* is not possible, the medio-passive form of the verb cannot have a reciprocal reading, although such a reading is semantically possible. Such is the case of verbs with quadri-literal roots in particular. For instance, the medio-passive *t-ʒərʒər* from √ʒrʒr 'to

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[5] While grammarians of CA use "Form" to refer to verb classes, grammarians of MA use "Measure" instead. We follow the same practice.

drag' can only have a passive interpretation even when its subject is plural. In order to express reciprocity, these verbs require the complex composed of *bəʕḍijat* 'others' + possessive pronoun. But when the second root segment is an 'a' vowel, as in √xaṣm 'to have a quarrel', a simple affixation of the MPM does allow for a reciprocal interpretation. When the root vowel is 'i', it is often turned into 'a' to derive the reciprocal form, as in *t-ṣafṭ* 'to say goodbye to each other' from √ṣifṭ 'to send'. However, radical 'u' resists this alternation, a fact which explains why the medio-passive of verbs like *surət* 'to lock', *sugər* 'to insure' or *nuɣəʃ* 'to irritate' are interpreted as passives only. What should be concluded from the above is that reciprocity is expressed not by the MPM alone, but together with the vocalic template.

At the syntactic-semantic level, transitive verbs involving two participants are the most susceptible to the reciprocal derivation. The object of the verb may be direct, as is the case with *dṛəb* 'to hit' and similar verbs, or preceded by a preposition, as with verbs like *mʃa* 'to go'. In both cases, the subject can either be plural or singular, in which case the participants must be referred to by separate expressions. The two cases are illustrated by the following examples:

(7)        t-dafʕ-u
        MPM-push-3MP
        'They pushed each other.'

(8)        t-bajʕ-t         u-t-ʃari-t         ana   w-ijjah
        MPM-sell-1S       and-MPM-buy-1S     he   and-3MS
        'He and I did business with each other.'

While the verb root √dfʕ 'to push' takes a direct object, √biʕ 'to sell' and √ʃri 'to buy' are prepositional verbs: the first requires the preposition *l* 'to' and the second *mn* 'from'. In the reciprocal, however, the prepositions are dropped, resulting in a surface similarity with transitive verbs.

In addition to the constructions illustrated by (7) and (8), the reciprocal can be used with a singular subject clitic referring to the first participant while the expression referring to the second participant occurs as object of the preposition *mʕa* 'with'. This is illustrated by the following example:

(9)        t-bajʕ-t         u-t-ʃari-t         mʕa-h
        MPM-sell-1S     and-MPM-buy-1S     with-3MS
        'I did business with him.'

The distinction between (8) and (9) is very subtle and hard to pin down, but it seems to revolve around who is the initiator of the action. While the event is conceptualized in (8) in a way that does not specify who initiated the business, (9) seems to indicate that the subject referent is the one who did. The difference between the two sentences could also be one of focus: (9) puts more focus on the subject than (8) does.

In both sentences, however, the verb has a Measure IIIa form usually associated with the reciprocal meaning. If it were not for that, (9) would be more similar with other non-reciprocal uses of the MPM, chief among which is the reflexive. In the reflexive use of the MPM, the subject is conceptualized as both the initiator and the endpoint of an action. More on this will be detailed in the following sub-section.

**3.3 Reflexives** Like reciprocals and transitive events in general, reflexives are two-participant events. But unlike transitive events, reflexives involve one entity only that acts both as Agent and Patient. This identity is expressed grammatically by various co-reference strategies. MA uses two strategies, with one more productive than the other.

The more productive co-reference strategy consists in using the compound *ṛas* 'head' + possessive pronoun. This is exemplified by (10):

(10)        dṛəb        ṛas-u
            hit.3MS    head-his
            'He hit himself.'

*ṛas* may be substituted dialectally or contextually by *nəfs* 'self' or *ṛuħ* 'soul'. All the three nouns combine with the different possessive pronouns, as is found in the English *-self*, to express co-reference with the subject. Apart from semantic restrictions such as those related to animacy, the use of these compounds does not seem to be constrained.

Besides this strategy, MA also uses the MPM to express reflexivity. This alternative strategy, however, is less productive as it is limited to a small class of verbs. Where this is possible, the MPM may alternate with the compound *ṛas* + possessive pronoun apparently without much semantic difference, as in the following pair of examples:

(11)    a.  t-zawṭ              f        l-bħəṛ
            MPM-throw.3MS    in      DEF-sea
            'He jumped into the sea.'
        b.  zawṭ              ṛas-u        f        l-bħəṛ
            throw.3MS      head-his    in      DEF-sea
            'He threw himself into the sea.

Both (11a) and (11b) could be used in situations in which the person referred to jumped into the sea by way of committing suicide, for instance; but this reading is more easily accessible in (b) than in (a). On the other hand, while (a) can naturally refer to a jump in water as part of a diving activity, this interpretation is hardly imaginable with (b). Examples of verbs in which both the MPM and the reflexive compound are possible are provided in (12):

(12)  MPM and Reflexive Verbs

| Verb | Gloss | Verb | Gloss |
|------|-------|------|-------|
| *ʕərra* | 'undress' | *səllaṭ* | 'give power' |
| *kəlləf* | 'make s.o responsible' | *bəddəl* | 'change' |
| *bəṛṛəʕ* | 'delight' | *ɣəjjəṛ* | 'change' |
| *ɣəṭṭa* | 'cover' | *bərrəd* | 'cool' |
| *ʕəʃʃa* | 'provide dinner' | *ʒəwwəʒ* | 'marry' |
| *ɣədda* | 'provide lunch' | *stər* | 'cover' |

Most of these verbs do not show the difference noted above between the medio-passive form and the transitive with the reflexive compound. However, the medio-passive seems to surpass largely the reflexive compound in frequency of use. Some of the differences in meaning between the two alternatives are probably due to this uneven frequency.

The difference between the two strategies may also be characterized in terms of what Kemmer (1993) calls "relative elaboration of events". This refers to the extent to which a transitive event is

conceptualized as involving two participants or one only. When the reflexive compound is used, the event is conceptualized as being constituted of two distinct participants, Agent and Patient, although these happen to be identical. This identity is expressed grammatically by the nominal compound *qua* reflexive pronoun. In this case, the verbal event is said to be highly elaborated. In comparison, the reflexive use of the medio-passive makes reference only to Agent while Patient is suppressed: the MPM turns a transitive verb into an intransitive one. The result of this suppression is that the event is conceptualized as being unary, that is, involving one participant only and, thus, of a low degree of elaboration. Kemmer classifies this use within the middle rather than the reflexive.

In terms of distribution, although the MPM can be used with almost all transitive verbs, it does not always yield itself to a reflexive reading. The medio-passive form of *ḍṛəb* 'to hit' or *hərrəs* 'to break', for instance, are more naturally interpreted as passive. The same remark holds also for ditransitive verbs like *ʕṭa* 'to give', *hda* 'to give a present', or *ṣ̌ift* 'to send' in which the subject of the medio-passive verb has the role Beneficiary rather than Patient. To express the idea that Patient/Beneficiary is co-referential with Agent, these verbs require the use of the reflexive nominal compound, as in (10) above. This fact should be taken as a formal indication that the verbs illustrated by (11) form a distinct semantic class. In this respect, the MPM in MA is reminiscent of the French pronoun *se*, which has both a reflexive and a middle use. The equivalents of the verbs in (11) in French generally take the pronoun *se* to express a reflexive meaning; e.g. *se marier* 'to get married', *se couvrir* 'to cover oneself', etc. There are variations, however, between the French reflexive pronoun and the MPM in MA which need future investigation.

It should be noted that verbs whose medio-passive form can have a reflexive reading are semantically heterogeneous. Kemmer (1993) argues that, although such verbs are often treated as reflexives, cross-linguistic data indicate that true reflexives should be distinguished from what she classifies as middle verbs. The following discussion will follow Kemmer's domains of the middle.

**3.4 The Middle** Among the major middle domains Kemmer lists are: grooming, non-translational motion, translational motion, change in body posture, emotion, cognition, perception, and spontaneous events. For the sake of brevity, these will be categorized into three domains: a) motion, which will include the first four domains, b) mental events, including emotion, cognition and perception, and c) spontaneous events. These will be discussed in this order.

One of the domains involving body motion is grooming. This includes verbs denoting various body care activities such as washing, bathing, shaving, dressing, undressing and similar cultural activities. These are recurrently noted to be middle-marked in different languages. In MA, however, most of the verbs denoting such activities are transitive, with a body-part as object. A notable exception is *t-ħəmməm* 'to bathe', but this is derived from the noun *ħəmmam* 'bath' and is, therefore, not semantically different from other noun-derived middle verbs. Another medio-passive verb that may be listed under grooming is *t-ħəzzəm*, which means literally 'to wear a belt' but is often used metaphorically for 'to be ready'. Like the cases discussed previously, this verb has both a middle reading and a reflexive reading. Obviously, under its metaphorical use, only the reflexive reading is accessible. Other motion verbs that exhibit this ambiguity are those that denote body actions. Examples of such verbs are listed under (13):

(13) Ambiguous Motion Verbs

|  | Verb | Gloss | Verb | Gloss |
|---|---|---|---|---|
| Non-translational motion | *t-kəssəl* | 'stretch' | *t-ʕəwwəʒ* | 'twist' |
|  | *t-ʒəbbəd* | 'stretch' | *t-ləwwa* | 'wind' |
|  | *t-təkka* | 'lean' | *t-ərʕəd* | 'shudder' |
| Change in body posture | *t-əħna* | 'bow' | *t-fafa* | 'become unstable' |
|  | *t-gəʕʕəd* | 'get up' | *t-gəlləb* | 'turn over' |
|  | *t-həzz* | 'stand up' | *t-qəwwəs* | 'have a crouching posture' |
| Translational motion | *t-məʃʃa* | 'walk' | *t-səll* | 'sneak' |
|  | *t-ħərrək* | 'move' | *t-əxzən* | 'hide' |
|  | *t-sara* | 'take a tour' | *t-ləffət* | 'turn around' |
| Other body actions | *t-nəffəs* | 'breathe' | *t-əzwa* | 'be unable to breathe' |
|  | *t-gərrəʕ* | 'belch out' | *t-bəssəm* | 'smile' |
|  | *t-qijja* | 'vomit' | *t-fəwwəh* | 'yawn' |

The number of verbs that could be classified under the four categories is relatively large, compared with other domains. Their semantics, however, remains idiosyncratic to some extent. As can be noticed, most of the verbs under (13) are the medio-passive form of the corresponding causatives. Consequently, they can easily be interpreted as passive, although the English translations hide this possibility. For instance, though *kəssəl* 'to stretch' has no corresponding non-derived equivalent, it is always used transitively. Therefore, the medio-passive *t-kəssəl* could easily be understood as 'to be stretched', especially when used with non-human entities. As a human body action, it can be interpreted as a reflexive, meaning 'to stretch one's body'. Even the medio-passive of non-causatives like *sara* 'to take s.o. on a tour' or *həzz* 'to carry' do exhibit this ambiguity. Thus, these verbs are very much similar to those considered so far.

There are, however, cases which cannot be argued to derive from any other verb, transitive or otherwise. This is illustrated by *t-ərʕəd* 'to shudder', *t-fəwwəh* 'to yawn' and *t- bəssəm* 'to smile' and *t-ləffət* 'to turn around' from (13), in addition to *t-xəṭṭa* 'to overstep', *t-nəhhəd* 'to sigh', *t-bəħbəħ* 'to become hoarse', *t-sənna* 'to wait' and *t-nəxxəm* 'cough out phlegm', among others. In these cases, the MPM is attached to a verb form that never occurs independently. Such medio-passive verbs are known as "deponents". For this reason, the passive reading is ruled out; the reflexive reading as well recedes back to leave way to a purely middle interpretation. Under this interpretation, the action is conceptualized as involving only one participant whose inner force effects the action. It is as if the event has become an intransitive one. Indeed, the medio-passive may be used alternatively with the corresponding intransitive verb, as is the case with *t-əħna* and *ħna*, both meaning 'to bow'. In this sense, these middle uses can be considered as intermediate between prototypical reflexives and prototypical intransitives.

Simple mental events involve two participants: a typical human being who initiates the mental action, and the object of the action. The verb encoding the mental event tends to be middle-marked when Initiator is affected by the action. This is more true of emotion verbs than of cognition or perception verbs apparently because human beings have less control over their emotions.

As noted by Kemmer (1993), languages tend to middle-mark emotion verbs more than they do cognition or perception verbs. This is also true of MA, as the following examples indicate:

(14) Emotion Verbs

|  | Verb | Gloss | Verb | Gloss |
|---|---|---|---|---|
| Cognition | *t-fəkkəṛ* | 'remember' | *t-xəjjəl* | 'imagine' |
|  | *t-ṣəwwəṛ* | 'imagine' | *t-nabəh* | 'pay attention' |
| Perception | *t-ṣənnaṭ* | 'listen' |  |  |
| Emotion | *t-əxləʕ* | 'be frightened' | *t-səll* | 'gloat over' |
|  | *t-hənna* | 'be in peace' | *t-waʕa* | 'regain consciousness' |
|  | *t-qəlləq* | 'be angry' | *t-ənqəṛ* | 'be upset' |

While I counted over three dozens of emotion verbs that can occur in the medio-passive, I found only about a dozen of cognition verbs and one perception verb that show a similar behavior. As in many other languages, cognition and perception verbs tend to prefer the transitive construction.

As in previous cases, verb semantics in this category is partly determined by morphology. The stem in most of these examples is transitive (mostly causative) and, consequently, their medio-passive could be understood as passive or as middle. *hənna*, for example, means 'to leave s.o. in peace'; so, *t-hənna* can be interpreted as 'to be left in peace' or simply as 'to be in peace'. Similarly, *t-əxlʕ* can be the passive or the middle of *xləʕ* 'to frighten'. In both examples, the reflexive reading is not easily accessible probably because it is not usual to frighten oneself or to leave oneself in peace. The middle in such cases codes the defocusing of Initiator, though not its complete suppression. With deponents, however, only the middle reading is possible. This is the case of *t-nabəh* 'to pay attention', *t-ṣənnaṭ* 'to listen' and *t-ənqəṛ* 'to be upset', for example. Since the stem is never used independently, the medio-passive is interpreted as denoting a one-participant event, much like an intransitive verb, though the presence of the MPM is there to signal the affectedness of Experiencer.

What Kemmer calls "spontaneous events" include those in which actions or processes are usually not initiated by any visible force. As a consequence, the construal focuses mainly on the affectedness of Patient. Medio-passive verbs in MA that fall within this category may have animate or inanimate subjects. These are some examples:

(15)  Spontaneous Events

|  | Verb | Gloss | Verb | Gloss |
|---|---|---|---|---|
| Animate | *t-wəffa* | 'pass away' | *t-əwləd* | 'be born' |
|  | *t-zad* | 'be born' | *t-bəddəl* | 'change' |
|  | *t- əʃhəṛ* | 'become famous' | *t-fəlləs* | 'become inept' |
| Inanimate | *t-ənfəx* | 'swell' | *t-səwwəs* | 'rot' |
|  | *t-gəjjəħ* | 'ooze pus' | *t-ɣəjjəm* | 'become cloudy' |
|  | *t-ʒəmməd* | 'freeze' | *t-fəqq* | 'crack' |

The verbs that have a transitive stem (especially causative) can have a passive reading, just like the examples discussed earlier. In this reading, the existence of Agent is understood, even when it is unspecified. For instance, *t-gəjjəħ* 'to ooze pus' can be understood to result from external intervention or from internal factors only dimly understood. In the same way, *t-əwləd* can be interpreted as the passive of *wləd*, in which case the agent would be the mother, or as middle, if giving birth to a child is conceptualized as being out of the mother's control. This second reading is even more clear in *t-zad*, whose stem is intransitive. Although *t-zad* and *t-əwləd* are synonymous, the stem is transitive in the second but intransitive in the first. Therefore, there is no sense in which *t-zad* can be read as equivalent to 'to be given birth'. Actually, the intransitive *zad* is often used with the meaning of 'to be born'.

With deponents, the passive reading is not available. This is the case of *t-wəffa* and *t-ɣəjjəm* from (15). The first is a euphemism for 'to die' but the stem *wəffa* is never used independently with a related meaning. Similarly, the stem of the second verb is itself derived from the noun *ɣjam* 'clouds', but the stem *ɣəjjəm* is never used alone. In both cases, the reason why the stem never occurs independently seems to be that the cause behind the two events is not clear.

The examples of spontaneous events contrast with those considered previously, especially reciprocals and reflexives. While reciprocals and reflexives are nearer to the transitive end of the continuum, spontaneous events are more like intransitives. Though they code the presence of the agent, its presence is barely felt, as the case of deponents illustrate.

After this discussion of the medio-passive category in MA, we will now consider the status of its component parts in the light of cognitive maps and linguistic change.

## 4. Medio-passive in synchrony and diachrony

The relation between the reflexive, the reciprocal, the middle and the passive categories has long aroused the interest of researchers working within the framework of linguistic typology. Here, we will focus mainly on the passive since the relationship between the other components is fairly established (cf. Kemmer, 1993; Klaiman, 1991; Zuniga and Kittila, 2019, among others). The development of the passive in MA is also of special interest because, as explained earlier, its CA ancestor disappeared as a consequence of sound change; therefore, the reappearance of the passive under the middle morphology deserves to be explained.

The development of the passive voice has been found to follow different pathways. One of the sources of the passive that has been noted cross-linguistically is the causative through the causative reflexive. In this situation, the causative verb morphology is used when Agent causes Patient to do something; e.g. to make s.o. do s.th, including cases in which Agent and Patient refer to the same entity (i.e. causative reflexive); e.g. to cause oneself to do s.th. It is this second use that apparently encourages the use of the same verb morphology in cases where only Patient is mentioned. The Korean causative morpheme *i* provides a good example of this development. (For illustration, see the data in Keenan and Faltz, 1985 and Kim, 2014; for a more detailed discussion of this pathway, see Ahn and Yap, 2019).

But the pathway that is more relevant to the understanding of the MA medio-passive is one in which the passive develops from the reflexive morphology through the middle. The relationship between the reflexive and the middle has recurrently been noted in different languages from different language families (cf. Kemmer, 1993 for examples) and, therefore, need no further comment here. What is of more interest is the way the middle develops into the passive. An instance of this development can be found in most, if not all, Romance languages, as the following examples from Italian (from Marelij, 2004, cited in Ahn and Yap, 2019, p.443) illustrate:

(16)    a.    Christina   si     sta     guardando        allo   specchio.                              (Reflexive)
             PN                si     AUX   watch.PROG     the     mirror
             'Christina is looking at herself (in the mirror).'

         b.    La     porta  si     e'      aperta.                                                              (Spontaneous middle)
             the:F  door   si     is      opened
             'The door opened.'   (i.e., a spontaneous action)

         c.    Questo       tavolino       si      transporta  facilmente.                             (Facilitative middle)
             this             table             si      transports   easily
             'This table transports easily.'   (i.e., this table is easy to carry around)

         d.    Questo       giornale       si      legge        ogni        mattina.                      (Passive)
             this             newspaper si      read          every      morning
             'This newspaper is read every morning.' (i.e., a habitual activity in this place)

In these examples, the morpheme *si*, which originally meant "self", is used to express reflexivity, as in (16a); but it extends easily to the middle, as in (16b; c). It is these middle uses that apparently gave rise to passive interpretations, as in (16d). A similar development has also been noted in Khoisan languages (cf. Heine and Kuteva, 2002) and Slavic and other language families (cf. Haspelmath, 1990).

In the light of these remarks, how can we interpret the MA data discussed above as to the development of the passive? By way of recapitulation, the prefix *t-* was shown to express the passive, the reflexive and the different types of the middle. It was also reported in reciprocals, though an additional change in the stem vowel was noted in this category. This prefix was argued to originate from a similar affix found in different verb forms of CA. During the development of MA, the passive, which used to be marked by a change in the vocalic melody of the verb in CA, simply disappeared from the grammar of this variety as a result of vowel reduction or deletion[6]. The issue to be addressed now concerns the reanalysis of the prefix *t-* as a passive marker, besides being the marker of the middle inherited from a previous stage of the language.

But before an answer to this question is attempted, a comparison with different varieties of Arabic is worthwhile. As a case in point, Cowell (1964, pp. 236-238) distinguishes in Syrian Arabic (SA) between the true passive and the medio-passive. The true passive is marked by the prefix *n-*; e.g. *ġalab* 'to beat' vs. *nġalab* 'to be beaten'. Diachronically, this passive form corresponds to Form VII of the verb in CA, i.e. *nfaʕal*. The medio-passive, on the other hand, descends from CA verb Form VIII, i.e. *ftaʕal*, and Form V, i.e. *tfaʕʕal*, exactly like the medio-passive in MA, as discussed in Section 2 above. The difference between the true passive and the medio-passive is summarized by Cowell (1964) in the following way:

> As distinct from the true passive, the mediopassive does not imply an external causative agent. If an active verb means '(X) does Y to (Z)', then its mediopassive derivative means '(Z) undergoes Y', but an external agent X is not implied (nor is it ruled out). [p. 238]

The difference between *nmanaʕ* 'to be prevented from' and *mtanaʕ* 'to abstain from', for instance, is that an external cause is implied in the first case but not in the second, in which case the cause is usually understood to be internal. From what has just been said, it is obvious that SA (and probably most Middle Eastern dialects[7]) is unlike MA in that the first marks the passive differently from the medio-passive while the second conflates the two categories.

In comparison with SA and MA, the Egyptian variety seems to stand in between, but probably nearer to the first than to the second. According to Gadalla (2000), the passive form of the verb in Egyptian Arabic (EA) can take a *t-* or a *n-* prefix, depending on the verb (compare *tkassar* 'to be broken' vs. *nḍarab* 'to be hit'). Gadalla notes, however, that passive verbs that take *t-* far outnumber those that take *n-*. In an attempt to account for this uneven distribution, he claims that *t-* was more frequent than *n-* in CA in that the first occurs in Forms V, VI and VIII while the second is found only in Form VII. This account, however, fails to explain why *n-* has become the passive marker in SA and other Middle Eastern dialects. Actually, many uses of Form VII in CA can easily be interpreted as cases of the passive, a fact which probably explains why this form was reanalyzed as a passive form in many dialects. Therefore, a better explanation of the EA and the MA cases is needed.

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[6] Obviously, this claim rests on the assumption that the passive in MA descends from a similar form in CA. This assumption, however, can be disputed on a principled basis. But since there is no evidence to the contrary, we will simply continue to accept the assumption.

[7] Apart from some conservative dialects in the Gulf, which still use vowel alternations to distinguish between the active and the passive forms of the verbs, all Arabic dialects in the Middle east use the prefix "(ʔi)n" to mark the passive. For more on this, see Ingham (1982) and Retsö (1983), among others.

A probable reason why MA uses the prefix *t*- as a marker of the passive is contact with Berber. In most Berber varieties known, whether in Algeria (cf. Tidjet, 2020), Morocco (cf. Boukhris, Boumalk, El Moujahid and Souifi, 2008) or Mauretania (cf Taine-Cheikh, 2005), some variant of the prefix *tt*- is used to mark the passive form of the verb. The passive form *ttwaker* "to be stolen", for example, corresponds to the active form *aker* "to steal". It is possible that, while the first Berber bilinguals were learning Arabic, they analyzed the *t*- prefix of Forms V and VIII as having the same semantic value as the passive prefix in their language. Similar re-analyses are not rare in situations of language contact, and examples of them have already been noted in the development of North African Arabic dialects due to the influence of Berber (cf. Ech-Charfi, 2018). But if this explanation can account for the passive in MA and similar varieties, which have been in contact with Berber, it is doubtful that it could account for the development of the passive in EA, which developed from contact with Coptic instead. Coptic, or at least the Sahidic dialect, did not have a passive voice. According to Plumley (1948, §259): "In order to express the Passive, Coptic has to resort to circumlocution by employing the 3rd pers. plural suffix with the active tense. Thus to express 'He was killed', Coptic has to say 'They killed him'."

The lack of a passive construction that is distinct from the middle in MA and EA could also be attributed to contact with Berber and Coptic. As in Coptic, the use of the passive in Berber is generally limited. Boukhris et al. (2008), for example, note that: "In comparison with the active form, the passive is not frequently used. It is often replaced by the 3rd person plural form of the verb; e.g. *umẓn t* 'they arrested him' instead of *ittwamẓ* 'he was arrested'"; p. 100-1 (*My translation*). Besides circumlocution, Berber also uses simple verbs to express meanings generally associated with the passive in languages like English. This form is sometimes called *le passif primitif* "primitive passive" (Boukhris et al. (2008), or ergative (Aikhenvald, 1995; Chaker, 1996). It can be illustrated by a comparison of the verb form in *ikrez ufllaħ iger* "the farmer ploughed the field" vs. *ikrez iger* "the field is ploughed". As can be noticed, although the direct object of the first sentence has become the subject of the second sentence, the verb form did not change. Some verbs in Coptic behave similarly. Plumely (1948, §139) asserts that "The Infinitive can express an active or a passive sense (§259); e.g. *oϒωN* 'To open' or 'To be opened', *TΛκo* 'To destroy' or 'To be destroyed', *TΛXPo* 'To make strong' or 'To be strengthened'" (see also Grossman, 2019). All this should imply that the first Berber/Coptic-Arabic bilinguals did not feel any urgency for the passive to satisfy their communicative needs and, consequently, used only the middle marker *t*-, which probably acquired a passive meaning only later.

But apart from a probable role of language contact, the development of the passive from the middle is entirely possible, as was pointed out earlier in this section. On the basis of cross-linguistic data, researchers have repeatedly found cases of languages in which the middle and the passive share the same marker. On the basis of this fact, they were able to draw semantic maps which could be argued to represent the corresponding conceptual space (cf. Croft, 2001; Croft and Poole, 2008, among others; for a critique of this position, see Cristofaro, 2010 and Janda, 2018). The map of the voice system in Kemmer (1993, p.206), for example, shows the passive as being related to the middle through the passive middle and spontaneous action or process. The passive middle refers to what is generally qualified as facilitative, as in the English example *the book reads well*, while spontaneous actions or processes are those which are conceived to happen naturally without any need for a specified Agent. As Kemmer (1993, p.148) notes, these passive-like uses of the middle marker "are typically infused with special semantics of genericity or habituality". In other words, the cause of the action is immaterial from the speaker's point of view. It is not difficult to imagine how these passive-like uses of the middle marker can extend easily to cases in which there is an Agent that is only suppressed for pragmatic purposes.

However, the issue with the MPM in MA, as noted in 3.1 above, is that it does not only express the passive as an extension of the middle uses, but the passive use seems to be its prototypical function. With transitive verbs, in particular, the passive reading seems to be the most salient in that the existence

of an agent is usually implied. Even in cases where the verb does not denote an action carried out by Agent on Patient, as in (2) and (3) above, the question as to who the experiencer is usually arises, whether implicitly or explicitly. This fact points to the pragmatic or cognitive priority of the passive over the middle uses, at least in languages like MA. This priority is probably not noticed in languages with an active – middle – passive trivalent distinction such as Ancient Greek (cf. Allen, 2003) and Vedic Sanskrit (cf. Grestenberger, 2021). In such languages, the middle marker is apparently used only marginally in passive constructions because there is a second type of passive usually used for prototypical cases. In comparison, in MA, where the same affix is used in all non-active forms of the verb, passive interpretations tend to override non-passive ones. If more languages with a similar voice system are reported, that would be an indication that the passive occupies a more salient position in conceptual space than the middle.

In comparison, other varieties of Arabic in the Middle East seem to indicate that the passive and the middle form different poles. As was explained earlier, the disappearance of the CA passive morphology in SA as a result of vowel deletion or reduction was later on replaced by the prefix *n-* of Form VII, while *t-* of Forms V and VIII retained its middle meanings. The reanalysis of *n-* in SA and similar varieties clearly points to the pragmatic or cognitive salience of the passive. In other words, it is as if the voice system cannot do without the passive. It is true that languages without a passive voice do exist (for a survey, see Keenan and Dryer, 2007), but languages with an active – non-active voice system apparently tend to develop the passive (e.g. Indo-European, see the papers in Kulikov and Lavidas, 2015). Unfortunately, we do not have enough written records in Arabic dialects from different historical periods that would enable us to trace the development of the passive diachronically; in Arabic diglossia, the dialects are used primarily for oral purposes while reading and writing are carried out mainly through the Classical language. Such a diachronic reconstruction would show whether the passive emerged quickly after the loss of the CA passive morphology or developed slowly in later stages. In any case, this is not the purpose of this paper (see Parker, 1976 for some hypotheses), though the importance of the issue for voice systems cannot be ignored.

## 5. Conclusion

In this paper, we have shown how MA data indicate that the different uses of the MPM form related domains in virtue of their shared formal marking. In particular, since the passive use does not descend from the diachronic source of *t-*, but was imposed on it after the neutralization of the passive/active contrast in MA, we concluded that the passive must have some pragmatic or cognitive connection with the other uses. More than that, the passive seems to act as a prototype for most of the uses of the MPM, as is indicated by the availability of the passive reading throughout most of the semantic categories discussed. This was taken as a strong suggestion in favor of the cognitive primacy of the passive in relation with the reciprocal, the reflexive and the middle domains.

## List of Abbreviations

MPM = Medio-passive marker
DEF = definite article
NEG = negation
IMP = imperfective
M = masculine
F = feminine
S = singular
P = plural

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