

ON THE PROPERTIES OF THE PASSIVE AFFIX IN MODERN GREEK\*

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**Abstract**

The purpose of this paper is to identify and discuss the properties of the Passive Affix (PA) in Modern Greek (MG), with the aim of shedding some light on the constructions in which it appears. These constructions have been classified in the literature as passive, middle or reflexive. The main conclusion that will be reached in this paper on the basis of a detailed study of the properties of the PA and their interaction with the properties of the verb and its inflection is that the labels passive, middle and reflexive can at best be understood as convenient terms instead of terms that imply that there are basic structural differences between the constructions in question. It will be shown that these constructions have in common a cluster of properties which arise as a consequence of the presence of the PA. The differences will be derived from the assumption that the PA can attach to the verb either in the lexicon or in the syntax. When the PA attaches to the verb in the lexicon a certain pattern emerges that will be shown to account for the properties of the constructions in question. On the other hand, when the PA attaches to the verb in the syntax a different pattern emerges that will also be shown to account for the properties of the constructions in question and their differences in relation to the previous ones. This conclusion is in line with the tendency in current research within GB theory to view constructions as epiphenomena, in the sense that constructions are simply the result of an interaction between the lexical properties of their constituents and the general and independent principles of UG.

**1. Properties of passives, middles and reflexives**

The following sentences are illustrative examples of the constructions mentioned above which exhibit the PA:

- (1) a. Aft-o t-o vivli-o dhiavas-ti-ke xtes  
this-NOM the-NOM book-NOM read-PA-3s yesterday  
"This book was read yesterday."
- b. Aft-o t-o vivli-o dhiavaz-et-e epharista  
this-NOM the-NOM book-NOM read-PA-3s with pleasure  
"This book reads with pleasure."
- c. I Maria xteniz-et-e kathe mera  
the-NOM Maria-NOM comb-PA-3s every day  
"Maria combs herself every day".

I will take (1a) to be representative of passive constructions and (1b) of middle constructions. (1c), on the other hand, is clearly a reflexive construction. It is important to point out at this stage that (1a) and (1b) differ only in that (1a) has a perfective reading while (1b) has an imperfective reading. This fact may be understood to imply that both constructions are in a sense passive constructions and that consequently it would be arbitrary to label (1b) a middle construction. However, my reasons for calling (1b) a middle construction is the fact that it shares at least three properties with constructions in other languages known as middle constructions.

First, like middles in English (Hale & Keyser (1986), Roberts (1988), among others), for example, (1b) does not seem to admit by-phrases, while (1a) does so readily :

(2) a. Aft-o t-o vivli-o dhiavas-ti-ke (apo ti-n Maria)  
this-NOM the-NOM book-NOM read-PA-3s by the Maria-ACC  
"This book was read by Maria."

b. Aft-o to vivli-o dhiavaz-et-e eftarista(\*apo tin Maria)  
this-NOM the-NOM book-NOM read-PA-3s with pleasure  
"This book reads with pleasure (\* by Maria)."

Secondly, like Middles in English too (Fagan (1988), Keyser & Roeper (1984), among others), (1b) requires the presence of a manner adverb, while (1a) doesn't :

(3) Aft-o t-o vivli-o dhiavaz-e-te \*(efhtarista)  
this-NOM the-NOM book-NOM read-PA-3s with pleasure

That passive constructions do not require the presence of an adverb is clearly illustrated by (1a).

The third property that (1b) has in common with English middles (Fagan (1988)) is the fact that its aspectual specification is [+IMP], a fact that is responsible for its generic reading. As pointed out above it is precisely this fact which sets (1b) apart from the passive constructions illustrated by (1a), in the sense that what makes (1b) a middle construction and not a passive construction, to the extent that there is a distinction between the two constructions, is the fact that (1b) has a generic reading which is the consequence of the imperfective aspectual specification. On the basis of this fact I will argue that (1a) and (1b) are practically one and the same construction, and that the differences pointed out above follow precisely from the aspectual specification and the mechanism responsible for the assignment of the external theta-role. However, I will continue to use the terms passive and middle to refer to (1a) and (1b), respectively, but only as convenient terms in the sense explained above.

Reflexives, illustrated by (1c), have in common with passives and middles the fact that they exhibit the PA. The null hypothesis, which I will adopt in this paper, is to assume that the PA in reflexives has similar properties to the PA in

passives and middles, in the sense that it is the same affix which has various instantiations. Reflexives differ from passives and middles in that the PA attaches to the verb at a different level, namely the lexicon, while in passives and middles the PA is base-generated independently under I and attaches to the verb as a result of a syntactic process of affixation i.e V-movement to I. I will try to demonstrate that this difference in terms of the level at which the PA attaches to the verb accounts for the properties which differentiate reflexives from passives and middles. In other words, I will argue that the lexical properties of the PA and their interaction with the principles of UG have a different effect on the constructions in which it appears according to which level it attaches to the verb. Reflexives also differ from passives and middles in that the subject in the reflexive constructions can have an agent reading.

## 2. The properties of the PA

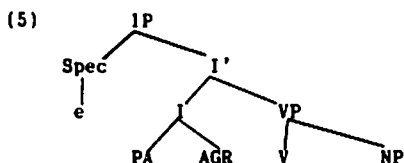
I will assume (4) to be the basic property of the PA :

(4) PA requires a theta-role

(4) can be understood as the licensing condition on the appearance of the PA, in the same way that arguments are assumed (cf. Chomsky (1986a)) to be licensed by theta-role assignment. Note that assuming a certain version of the Visibility Hypothesis which requires categories which need to be licensed in terms of theta-role assignment to have Case, it follows that the PA must have Case too. The type of theta-role the PA receives is determined by its position inside the clause. When the PA is base-generated inside VP it receives the internal theta-role of the verb, and when it is base-generated external to VP it receives the external theta-role of the verb. Note that among the consequences of (4) is that the PA can only appear in sentences with transitive verbs, i.e. verbs that have a case to assign to the PA.

The sense in which the PA is assumed to be base-generated inside VP is that it gets inserted under V already attached to the verb. More precisely, I will assume that in this case the PA gets attached to the verb in terms of a lexical rule of affixation. Assuming (4) to be correct what follows is that the PA gets the internal theta-role of the verb. Following Rizzi (1986), I will understand this process in terms of the notion of "saturation", that is by attaching to the verb in the lexicon the PA saturates the internal theta-role of the verb, and consequently the latter fails to project in terms of an independent syntactic position. It is in this sense that I will argue reflexives differ from passives and middles. This will allow me to account for the apparent intransitive nature of reflexives which will be discussed in detail later in this paper.

When the PA is base-generated external to VP I will assume it to be under I, following Jaeggli (1986), Baker (1988) and Baker, Johnson and Roberts (forthcoming). The structure underlying the constructions where this is the case is as follows :



In its position under I the PA is external to VP and by virtue of (4) receives the external theta-role of the verb. However, in order for the PA to be able to be assigned a theta-role under the Visibility Hypothesis it has to have Case. I will assume that the PA receives the accusative Case from the verb subsequent to V-movement to I. This process can be understood in terms of a Case theory where Case is assumed to be a property of chains (cf. Brody (1984) & (1985), Chomsky (1986a)). Assuming that Case can be assigned either by the head or the tail of a head-chain it follows that in (5), subsequent to V-movement to I, the accusative case of the (V,t) chain can be assigned either to the PA by V under I or to the NP object by the trace of V. Given that the (V,t) chain has only one Case to assign it follows that one of the two Case-needy elements has to receive Case from an independent Case-assigner.

Suppose that the Case of the verbal chain is assigned to PA under I. The NP object would then have to move to a position where it can receive Case. This position is obviously the Spec of IP where nominative is assigned under the Spec-Head agreement relation of Chomsky (1986b). Suppose instead that the Case of the verbal chain is assigned to the object NP. It follows that the PA must seek Case from an independent source. Unlike the NP object the PA does not have the option of moving to Spec of IP because this movement would violate the Structure Preserving Hypothesis, PA being a head element and Spec of IP a maximal projection. Therefore, in this case the PA would fail to satisfy the Case requirement for visibility. It follows that the only option that gives rise to a lawful structure is one whereby the Case of the verbal chain is assigned to the PA, thus forcing the NP object to move to the Spec of IP. I will argue later that this is precisely the mechanism that underlies the derivation of passives and middles.

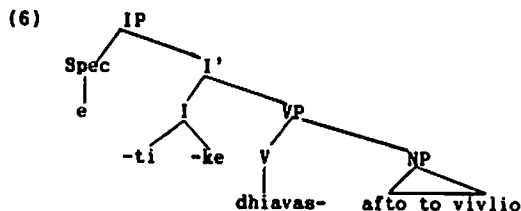
Evidence for the assumption that the PA is indeed base-generated under I comes from the fact that it has an aspectual reading, in the sense that it is specified for the feature [+,-(IM)PERFECTIVE]. This is evident from the examples in (1a) and (1b) which, as pointed out above, differ only in that (1a) has a perfective reading while (1b) has an imperfective reading, the difference which sets (1b) apart from passive constructions

which seem to always have a perfective reading. Assuming that Aspect, like Tense, is a property of I elements then there is a clear sense in which the PA belongs under I and not anywhere else.

### 3. Passives

#### 3.1. The derivation

Using (1a) for illustration the derivation of passives proceeds as follows :



As shown by the relevant arrow the verb moves to I to attach to the elements occupying it. The motivation for this movement can be understood in terms of the necessity to provide the affixal elements under I with a lexical category to attach to in order to satisfy the general requirement on affixes in the sense of Chomsky (1986b) and Baker (1988), among others. Notice, however, that in the context of the analysis suggested in this paper there is a further motivation for V-movement to I, namely the necessity to assign Case to the PA -ti under I in order for it to become visible for theta-role assignment necessary to satisfy the licensing condition expressed in (4) above. Notice that the verb would not be able to assign Case to the PA if it did not raise to I because the Verb does not c-command I from its D-Structure position.

Assuming as stated above that Case-assignment is a property of head-chains it follows that once V has assigned Case to the PA its trace under V cannot assign Case to the object NP since the Case-assignment property of the verbal chain has already been exhausted. The object NP would then have to move to a position where it can receive Case. The only such position available in (6) is Spec of IP. The fact that the NP in question appears bearing nominative Case as illustrated by (1a) above implies that it does indeed move to Spec of IP, assuming that nominative is assigned in that position under coindexation with AGR<sup>2</sup>.

Before moving on to discuss double object passives I would like to say a few words about the by-phrase. Following Jaeggli (1986), I will assume that the by-phrase is an adjunct which doubles the external theta-role assigned to the PA under I. For this doubling to take place it can be assumed that the by-phrase

is coindexed with I which contains in addition to the PA AGR. The crucial nature of this coindexation will be spelled out later where it is shown to be crucial for an account of certain differences between middles and passives in relation to the nature of the by-phrase they admit.

### 3.2. Double object passives

It should be clear from what was said above that the presence of the PA in the sentence deprives the direct object of the verb from Case, thus forcing it to move to the Spec of IP position. This analysis, however, apparently runs into problems with respect to double object constructions of the type illustrated in (7) below, that is constructions where the verb subcategorises for two NP arguments:

- (7) a. Ta pedhj-a dhidhah-ti-kan gramatik-i  
the-NOM children-NOM teach-PA-3p grammar-ACC  
"The children were taught grammar."  
b. Ta dhendhr-a pækas-ti-kan dhilitiri-o  
the-NOM trees-NOM spray-PA-3p poison-ACC  
"The trees were sprayed with poison."

The passivised form of the verb in these examples is clearly followed by a NP in the accusative. Given this fact the question that these examples give rise to is, How does the accusative NP following the verb get Case, given the presence of the PA in the sentence? To answer this question adequately, I suggest that we investigate first the Case properties of the active counterparts of these constructions, that is constructions where the verb does not have a PA attached to it.

As is clearly illustrated by the examples in (8) below the active counterparts of the verbs in (7) are followed by two NPs in the accusative, hence the term double-object/accusative constructions :

- (8) a. O dhaskal-os dhidhak-a-e ta pedhj-a gramatik-i  
the teacher-NOM taught the-ACC children-ACC grammar-ACC  
"The teacher taught the children grammar."  
b. O georg-os pækas-e ta dhendhr-a dhilitiri-o  
the-NOM farmer-NOM sprayed the-ACC trees-ACC poison-ACC  
"The farmer sprayed the trees with poison."

Assuming for the moment that only the NP adjacent to the verb is Case-dependent on the verb, given Stowell's (1981) adjacency condition on Case-assignment, the question arises as to how the non-adjacent NP gets the accusative Case. Before answering this question it is important to point that the sentences in (8) have counterparts where the non-adjacent NP is governed by a preposition :

- (9) a. O dhaskal-os dhidhak-s-e gramatik-i s-ta pedhj-a  
the teacher-NOM taught grammar-ACC to-the children-ACC  
"The teacher taught grammar to the children."  
b. O georg-os psekas-e dhilitiri-o s-ta dhendhr-a  
the farmer-NOM sprayed poison-ACC to-the trees-ACC  
"The farmer sprayed poison on the trees."

Note that the non-adjacent NP object in these constructions does not raise any problem with respect to its source of Case. Given that prepositions in MG assign the accusative to their objects, the non-adjacent NP can readily be assumed to receive Case from the preposition governing it. It is important to realize that in this situation the verb does not govern, and consequently cannot be assumed to assign Case, to the non-adjacent NP under the Minimality Condition of Chomsky (1986b). The preposition is a closer governor to the non-adjacent NP, and consequently prevents the verb from governing it.

The prediction that this analysis makes with respect to the examples in (9) is that the presence of the PA would have the effect of forcing the adjacent NP to move but not necessarily the non-adjacent NP. The reason is that the adjacent NP is Case-dependent on the verb while the non-adjacent NP is not. That the prediction is borne out by the facts of MG is clearly illustrated by the following examples :

- (10) a. Gramatik-i dhidhak-ti-ke s-ta pedhj-a  
grammar-NOM teach-PA-3s to-the-ACC children-ACC  
"Grammar was taught to the children."  
b. To dhilitiri-o psekas-ti-ke s-ta dhendhr-a  
the poison-NOM spray-PA-3s to-the trees-ACC  
"The poison was sprayed on the trees."

In these examples the accusative Case assigned by the verb goes to the PA as described above. Consequently, the NP adjacent to the verb is forced to move to the Spec of IP position where it gets nominative from AGR under I.

Going back to the examples in (8) we realize that there are at least two possible ways the non-adjacent NP can receive Case. One possibility is to assume that it receives accusative from the verb, just like the adjacent NP, in which case the verb in question would have to be assumed to be able to assign two structural Cases. The other possibility is to assume that the non-adjacent NP receives inherent accusative, in which case the accusative Case in MG would have to be assumed to be both structural and inherent. What I would like to demonstrate next is that the two assumptions make different predictions with respect to the analysis suggested above.

The first assumption makes the prediction that either of the two objects can/should move to the subject position in the presence of the PA. That the non-adjacent NP can/should move is

illustrated by the examples in (7). The examples in (10), on the other hand, illustrate the fact that the adjacent NP can also move. Notice, however, that the presence of a preposition governing the indirect object is obligatory. What this fact implies clearly is that the indirect object is not dependent for its Case on the verb, and that consequently the assumption that the verb can assign two structural Cases is incorrect. If the indirect object were Case-dependent on the verb the obligatory presence of the preposition whose function it seems is to provide the indirect object with Case would have no possible explanation.

The second possibility, namely that the non-adjacent object receives inherent Case, predicts that the direct object can/should move, while the indirect object cannot/should not be able to move, i.e. it predicts the examples in (10) to be well-formed and the examples in (7) to be ill-formed. The latter are predicted to be ill-formed because their Case is supposed to be taken by the PA. Furthermore, if the standard assumption that NPs move for Case reasons is correct, then the indirect object should not be expected to move because it is supposed to get Case inherently. It seems that neither of the two assumptions makes the right predictions as far as the analysis suggested above is concerned.

However, the second assumption would make the right prediction if the examples in (7) are assumed to derive from the following underlying structures :

- (11) a. e dhidhah-ti-kan ta pedhja gramatiki  
e teach-PA-3p the children grammar  
b. e pækas-ti-kan ta dhendhra dhilitirio  
e spray-PA-3p the trees poison

where the indirect object is adjacent to the verb while the direct object is in a non-adjacent position. In this case, it is the indirect object that is Case-dependent on the verb, assuming the general adjacency condition on Case-assignment mentioned above. The direct object, on the other hand, gets the accusative Case inherently given that it is non-adjacent to the verb.

Possible evidence for this analysis comes from the properties of a different class of double object constructions which unlike the ones discussed above do not exhibit the dative-shift pattern, that is the pattern where the indirect object is adjacent to the verb, illustrated by the examples in (8) above :

- (12) a. O Yani-s edhos-e to vivli-o s-tin Maria  
the Yani-NOM gave-3s the book-ACC to-the Maria-ACC  
"Yani gave the book to Maria."  
b. \*O Yani-s e-dhos-e tin Maria to vivli-o  
the Yani-NOM gave-3s the Maria-ACC the book-ACC  
"Yani gave Maria the book."



c. O Yani-s estil-e to gram-a s-tin Maria  
the Yani-NOM sent-3s the letter-ACC to-the Maria-ACC  
"Yani sent the letter to Maria."

d.\*O Yani-s estil-e tin Maria to gram-a  
the Yani-NOM sent-3s the Maria-ACC the letter-ACC  
"Yani sent Maria the letter."

The ungrammaticality of examples (12b&d) implies that the D-Structure representation illustrated by (11), where the indirect object is adjacent to the verb, is not available to the class of verbs illustrated in (12) for some reason that is still unknown to me. In other words, a structure where the indirect object would be Case-dependent on the verb is not available to this class of verbs. Given this fact the prediction that the analysis suggested above makes is that the indirect object in constructions such as (12b&d) cannot/should not be able to undergo passivisation, the assumption being that only NPs that are Case-dependent on the verb can/should be able to undergo passivisation. That the prediction is correct is illustrated by the following examples :

(13) a. \*I Maria dho-thi-ke to vivli-o  
the Maria-NOM gave-PA-3s the book-ACC  
"Maria was given the book."

b. \*O Petr-os stal-thi-ke to grama  
the Petros-NOM sent-PA-3s the letter-ACC  
"Petros was sent the letter."

The ungrammaticality of these examples contrasts sharply with the grammaticality of the following examples where the direct object is passivised. These examples are predicted to be correct on the assumption, based on (12a&c), that the direct object is Case-dependent on the verb :

(14) a. To vivli-o dho-thi-ke s-tin Maria  
the book-NOM gave-PA-3s to-the Maria-ACC  
"The book was given to Maria."

b. To gram-a stal-thi-ke s-ton Petro  
the letter-NOM sent-PA-3s to-the Petro-ACC  
"The letter was sent to Petro."

### 3.3. Passives of experiencer verbs

In this section I will discuss passive constructions which involve experiencer verbs, that is verbs whose argument structure contains an experiencer theta-role. These verbs raise problems of a particular nature with respect to the analysis outlined above. One of the questions that will be addressed is

whether the experiencer theta-role is an external or an internal theta-role. Notice already that the fact that these verbs can passivise, as illustrated by (15) below, implies that the experiencer role must be internal (i.e. that experiencer verbs are in a sense transitive) since the analysis outlined above predicts that only transitive verbs in MG can passivise. However, I will argue that the experiencer theta-role can either be assumed to be external or internal and that the passivised forms of the experiencer verbs are in fact forms which have already undergone a process of causativisation in the lexicon whose effect is to internalise the experiencer argument, thus transitivity the verb, and at the same time introduce a new external argument.

The following are examples which illustrate the possibility of passivising experiencer verbs :

- (15) a. O Yani-s eknevr-is-ti-ke (me tin katastasi)  
the Yani-NOM irritate-PA-3s with the situation  
"Yani was irritated (by the situation)."
- b. I Maria ekseftelis-ti-ke (me ta sxolia tu Yani)  
the Maria-NOM humiliate-PA-3s with comments the Yani-GEN  
"Maria was humiliated by Yani's comments."

Superficially, these constructions look similar to the passive constructions discussed above in that they contain a derived nominative subject as well as an optional prepositional phrase which contains the agent argument. This would imply that the subject which bears the experiencer theta-role is an internal argument. This would also imply that experiencer verbs also assign an additional (external) agent theta-role which in (15a&b) would be assigned to the PA under I and shared by the prepositional phrase coindexed with it.

However, adopting this analysis would involve overlooking a basic property of the verbs in the sentences in (15) which the verbs in the passive constructions discussed above lack. This is the fact that the verbs in (15) have a causative reading. In fact the verbal complex in the examples in (15) exhibits a clear instantiation of the MG causative morpheme *-jg*. Accordingly, a more accurate representation of the examples in (15) should look as follows :

- (16) a. O Yani-s eknevr-is-ti-ke me tin katastasi  
the Yani-NOM irritate-CAUSE-PA-3s with the situation  
"Yani was made nervous by the situation."
- b. I Maria ekseftel-is-ti-ke me ta sxolia tu Yani  
Maria-NOM humiliate-CAUSE-PA-3s with the comments Yani  
"Maria was caused to be humiliated by Yani's comments."

I will take this fact to be an indication that experiencer verbs undergo a change in their argument structure effected by the process of causativisation before entering the process of

passivisation.

Specifically, I would like to claim that experiencer verbs assign only one theta-role, namely experiencer borne by *Yani* in (16a) and by *Maria* in (16b), and that the second theta role, born by the PA and the prepositional phrase coindexed with it is introduced by the causative morpheme as a result of a process of causativisation which takes place in the lexicon. In other terms, I will assume that the causative morpheme increases the number of arguments associated with the experiencer verb by one. The experiencer argument can be assumed to be either internal or external. If it is external then the effect that the process of causativisation has is that it internalises the experiencer argument, thus transitivity the experiencer verb, and at the same time introduces a new external argument, a classic example of morphological causativisation. On the other hand, if the experiencer argument is assumed to be internal, in which case the experiencer verb would be originally transitive, then the effect that the process of causativisation has is that it simply introduces an external argument where there was none before. It is only after this process has taken place in the lexicon that the derived (causativised) experiencer verb enters the process of passivisation which as explained above is basically a syntactic process.

Note that the active counterparts of the sentences in (16) also exhibit a clear instantiation of the causative morpheme, thus providing additional evidence for the analysis suggested :

- (17) a. I *katastasi eknevr-is-e* to *Yani*  
the situation-NOM irritate-CAUSE-3s the *Yani*-ACC  
" The situation irritated *Yani*
- b. *Ta sxolia tu Yani ekseftel-is-an* tin *Maria*  
the comments-NOM the *Yani* humiliated-CAUSE-3p *Maria*-ACC  
" *Yani's* comments humiliated *Maria*."

The argument which appears inside the prepositional phrase in (17) appears as a nominative subject in these sentences, while the experiencer argument surfaces as the accusative object of the experiencer verb.

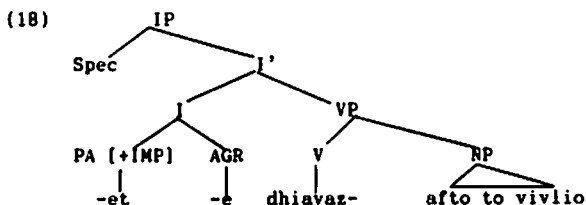
To summarise, I have argued in this section that the PA in passives is base-generated under I. In this position the PA is assigned the external theta-role of the verb necessary for its licensing under condition (4). The PA is also assigned Case by the verb subsequent to V-movement to I. The necessity to assign Case to the PA is also dictated by condition (4) under the Visibility Hypothesis which requires elements that need a theta-role to have Case. As a consequence of assigning the Case of the verb to the PA the object NP is left Caseless in its D-structure position, hence its movement to the Spec of IP position where it receives nominative from AGR under I. Spec of IP is a non-theta-position under the analysis proposed and therefore a legitimate target for movement, given the theta-criterion and the definition of chain in Chomsky (1986a).

With respect to double object verbs I have argued that only the NP adjacent to the verb is Case-dependent on the verb; the non-adjacent NP is assigned accusative inherently. I have also demonstrated that only the NP which is Case-dependent on the verb can passivise. Constructions which seem to allow passivisation of either of the two NP objects have been concluded to have available to them two possible underlying representations where either of the two NP objects is adjacent to, and therefore Case-dependent on, the verb.

As to experiencer verbs I have argued that they contain a single theta-role in their argument structure, namely experiencer which can be assumed to be either external or internal. Passives of experiencer verbs have been shown to be passives of causativised forms of the experiencer verbs. The forms that enter passivisation in the syntax are forms that have already undergone a process of causativisation in the lexicon which has introduced an additional external argument to the original argument structure of the experiencer verbs which consists of only the experiencer argument.

#### 4. Middles

It was mentioned earlier that middles differ from passives in that middles do not admit a by-phrase, require the presence of a manner adverbial, and always have a generic reading. What I would like to argue in this section is that the first and second property follow from the third property. Otherwise, middles have a derivation that is identical to that of passives described in 4.1. above. The following is the structure underlying the example in (1b), ignoring for the moment the position of the manner adverbial:



As in the derivation of passives the verb moves to I to attach to the PA and the other elements occupying the I position. In this position the verb assigns its Case to the PA, necessary to license the presence of the PA under (4) and the Visibility Hypothesis. As a result of this the NP object is forced to move to the Spec of IP position where it receives nominative from AGR under I.

One of the crucial properties of the PA also mentioned earlier is the fact that it has an aspectual reading, in the sense that it conveys the imperfective as specified in the tree

(18) above. When considered in relation to the assumption that the PA is base-generated under I and that it receives the external theta-role of the verb, it becomes plausible to make the assumption that the PA in a sense determines the nature of the external theta-role assigned to it. More precisely, I will assume that a [+IMP] PA requires an arbitrary (external) theta-role. It is precisely this fact, I believe, which gives middles the generic reading they have. It is also this fact, I believe, which is responsible for the fact that middles do not admit a by-phrase (to be more precise middles do not admit a by-phrase with a specific reference as we will see later), as well as the fact that they require the presence of a manner adverbial, in the following way.

Following Jaeggli (1986) and others, we assumed earlier that the by-phrase is coindexed with I, and that it shares with the PA its theta-role. It follows from this assumption that the by-phrase must have an identical reading to the PA in terms of the theta-role assigned to it, i.e. if the PA has a non-arbitrary reading the by-phrase coindexed with it must have a non-arbitrary reading, and that if the PA has an arbitrary theta-role then the by-phrase must have an arbitrary reading. That this is the case in passives where, as shown above, the PA has a non-arbitrary theta-role is shown by the following example:

- (19) a. O klefti-s sinelif-thi (\*apo opjondhipote)  
the thief-NOM arrest-PA-3s  
"The thief was arrested by (\*anyone)."
- b. Ta dhemat-a parelif-thi-san (\*apo opjondhipote)  
the parcels-NOM receive-PA-3p by anyone  
"The parcels were received by (\*anyone)"

where the by-phrase is arbitrary. Pushing the logic of the argument a little bit further what we should expect with respect to middles, where the theta-role assigned to the PA is arbitrary, is while middles should not be able to admit by-phrases with a specific theta-role, a fact that was mentioned earlier and illustrated by (2b), they should be able to admit by-phrases that have an arbitrary reading, that is by-phrases of the type illustrated in (19). That this is precisely the case is clearly demonstrated by the following examples :

- (20) a. Afto to vivli-o dhiavas-et-e efarista (apo opjondhipote)  
this the book-NOM read-PA-3s with pleasure by anyone  
"This book reads with pleasure by anyone." (Literally)
- b. Ta galika mathen-o-nte efkola (apo opjondhipote)  
the French-NOM acquire-PA-3p easily by anyone  
"French acquires easily by anyone." (Literally)
- c. Afto to film vlep-e-te efarista (apo opjondhipote)  
this the film-NOM see-PA-3s with pleasure by anyone  
"This film watches easily by anyone." (Literally)

What these examples demonstrate is that it is not entirely true that middles do not admit by-phrases. What they do not admit are by-phrases with a specific reading, in precisely the same way that passives do not admit by-phrases with an arbitrary reading. Both facts follow in a principled way from the assumption adopted above that by-phrases are coindexed with I where the PA is located.

Assuming this analysis to be correct, I will now turn to the obligatory presence of a manner adverbial in Middles illustrated by (3) above. My analysis of this fact will also rely crucially on the imperfective nature of the PA in middles. I will simply assume that imperfective PA selects a manner adverbial whose presence then becomes obligatory by some version of the Projection Principle, hence the ungrammaticality of (3). The idea that, at least some, manner adverbials are selected is by no means new since it has been assumed by Rizzi (1988) that in English manner adverbs such as carefully in constructions such as the following are selected, an assumption that is necessary to account for their obligatory presence :

(21) John phrased the letter \*(carefully/beautifully)

The difference between the assumption I have made with respect to adverbs in middles and that of Rizzi is while Rizzi assumes that the adverb in (21) is selected by the verb, I have assumed that in middles the manner adverb is selected by the imperfective PA under I. The crucial idea that some manner adverbs are selected, an assumption that is made necessary by the need to account for their obligatory nature, is however the same.

Evidence for the assumption that manner adverbs of the type mentioned in (1b&(3)) are indeed selected by an element under I with an arbitrary theta-role comes from examples such as the following which are active counterparts of the sentences in (20):

- (22) a. Afto to vivli-o to dhiavaz-i kanis \*(efharista)  
this the book-ACC it read-3s no one-NOM with pleasure  
"Anyone can read this book with pleasure."  
b. Ta galik-a ta mathen-i kanis \*(efkola)  
the French-ACC them acquire-3s no one-NOM easily  
"Anyone can acquire French easily."  
c. Afto to film to vlep-i kanis \*(efharista)  
this the film-ACC it see-3s no one-NOM with pleasure  
"Anyone can watch this film with pleasure."

These sentences have in common, among other things, the fact that they contain the element kanis. Literally, kanis has a meaning roughly equivalent to that of no one in English. However, when used in constructions such as those in (22) above it takes on a meaning that is roughly equivalent to anyone, i.e.

that the meaning which, in this paper, we have been associating with arbitrary theta-roles. I will assume on the basis of some properties of kanis that it is a clitic-like element which surfaces under I, just like the PA in passives and middles as discussed above. Like the PA also kanis receives the external theta-role of the verb which given the reading of the sentences in (22) is an arbitrary theta-role. In this case also it seems that it is the imperfective nature of I which is responsible for the arbitrariness of the external theta-role assigned to kanis. The ungrammaticality of the following examples, which are perfective counterparts of those in (22), demonstrates that kanis cannot be associated with an I that is not specified [+IMP] :

- (23) a. \*Afto to vivlio to dhiava-s-e kanis eftarista  
this the book-ACC it read-PERF-3s no one-NOM with pleasure
- b. \*Ta galika ta e-math-e kanis efkola  
the French-ACC them PERF-acquire-3s no one easily
- c. \*Afto to film to idhe kanis eftarista  
this the film-ACC it saw no one with pleasure

Assuming as we did above, that imperfective I requires an arbitrary external theta-role and that kanis, in the sense understood in (22), can only be assigned an arbitrary theta-role explains why kanis cannot be associated with a non-imperfective I.

Note that like middles the constructions in (22) require the presence of a manner adverbial. Pursuing our tendency to account for the obligatory presence of a manner adverbial in terms of selection it is plausible to conclude that the manner adverbial in the examples in (22) is selected by I which contains the arbitrary clitic kanis, in the same way that the manner adverbial in middles is selected by I containing the PA. Assuming this analysis to be correct it provides interesting evidence for the assumption that manner adverbials are indeed selected by I containing elements with an arbitrary theta-role, an assumption that is necessary to account for the obligatory presence of the manner adverbials in the constructions in question.

To summarise, I have argued in this section that middles have a derivation that is essentially similar to that of passives where the PA is base-generated under I and attaches to the verb as a result of a syntactic process of affixation. The fact that middles do not admit a specific by-phrase, that they require the presence of a manner adverb, and that they have a generic reading follow from the aspectual specification of the PA. More precisely, I have argued that the PA in middles is specified [+IMP]. Imperfective PA, on the other hand, requires an arbitrary theta-role. From this assumption I derived the fact that middles admit a generic by-phrase but not a specific one, given that the by-phrase is coindexed with it and shares with it

the external theta-role. From the same assumption I have also derived the fact that middles require the presence of a manner adverb in terms of a selectional relation between I and the adverb in question. I have demonstrated that the possibility that adverbs can be selected is independently motivated by facts that are not necessarily related to the phenomenon discussed.

## 5. Reflexives

### 5.1. Lexical Reflexives

As is illustrated by (1c) reflexives share with passives and middles the fact that they exhibit the PA. Extending the analysis suggested above for passives and middles to reflexives, we can assume that the PA is base-generated under I and receives the external theta-role of the verb. The surface nominative subject would then be a derived subject moved from the object position for failure to receive Case, the verb having assigned its (accusative) Case to the PA under I subsequent to V-movement to I. However, there is an important sense in which the subject in (1c) differs from the subjects in (1a&b), namely the subject in (1c) can have an agent reading which the subjects in (1a&b) cannot have. That is, Maria in (1c) is the agent of combing despite the fact that she is the person whose hair is being combed. What this fact implies is that the subject Maria in (1c) is possibly assigned the agent theta-role directly in its surface position, in which case it would not be a derived subject given that derived subjects always have a non-agent theta-role.

There is empirical evidence of an interesting nature which suggests that the subject in (1c) and in reflexives in general is not a derived subject. It seems to be generally true, as demonstrated by the examples in (24) below, that derived subjects in MG cannot control the subject of a control clause :

- (24) a. \*O Yanis dholofoni-thi-ke ja na gini iroas  
the Yani-NOM kill-PA-3s for become hero  
"Yani was killed to become a hero." (Literally)
- b. \*I Maria apoli-thi-ke ja na arxisi apergia  
the Maria-NOM sack-PA-3s for start strike-ACC  
"Maria was sacked to start a strike," (Literally)
- c. \*I afelis eksapat-u-nte efkola na psifisun dheksia  
the naive cheat-PA-3p easily vote right(wing)-ACC  
"Naive people are easily cheated to vote for the right wing"
- d.\* O Yanis ksejeli-e-te efkola na sinehisi tin dhulia  
the Yani-NOM trick-PA-3s easily continue the job  
"Yani tricks easily to continue the job." (Literally)

(24a&b) are passives while (24c&d) are middles. The subjects of



both constructions are derived as argued above. In all these sentences the subject of the purposive clause cannot be understood to be coreferential with (i.e. controlled by) the (derived) subject of the matrix clause, hence the ungrammaticality.

Subjects of reflexives differ sharply from subjects of passives and middles in that they can readily control the subject of a purposive clause :

(25) a. I Maria xtenis-ti-ke ja na vji ekso  
the Maria-NOM comb-PA-3s for go out  
"Maria combed herself to go out."

b. Ta pedhja nti-thi-kan grigora ja na prolavun to treno  
the children dress-PA-3p quickly for catch the train  
"The children dressed quickly to catch the train."

The fact that the subject of reflexives can control clearly implies that it is not derived, given that derived subjects cannot control as demonstrated above. If this is the case then the subject of reflexives must be assumed to be base-generated in the subject position and assigned the external theta-role of the verb. This in turn implies that the PA is not base-generated under I because if it were it would fail to be assigned a theta-role necessary for its licensing as required by (4). Recall that under I, which is a position external to VP, the PA can only receive the external theta-role.

On the basis of these facts I will assume that in reflexives the PA is attached to the verb in the lexicon and consequently the complex V+PA is inserted under V at the D-structure level as one unit. The reflexive reading of these constructions is derived from the anaphoric nature of the PA under the assumption that when the affixation takes place in the lexicon the PA can only be anaphoric. Notice that regardless of where the PA gets attached to the verb it still has to satisfy the licensing condition (4). Notice also that in its position inside VP the PA can only be assigned an internal theta-role. Put together these observations imply that the PA is assigned the internal theta-role of the verb as well as Case necessary for the assignment of theta-role under the Visibility Hypothesis.

More precisely, I will assume, following an idea suggested in Rizzi (1986), that by attaching to the verb in the lexicon the PA "saturates" the internal theta-role of the verb, thus preventing it from projecting in terms of an independent position in the sense of X-bar theory<sup>5</sup>. In other words, the effect that this lexical process has on the argument structure of the verb is that it decreases its valency by one argument. This process has an opposite effect to that of the process of causativisation discussed above which increases the valency of the verb by one argument since it introduces a new argument. Note that this possibility is not available to passives and middles because the process of attaching the PA to the verb

takes place in the syntax where it is not possible to effect any changes on the argument structure of the verb.

This analysis makes two interesting predictions. First, it predicts that reflexives should not be able to admit a by-phrase given the assumption that by-phrases share the external theta-role with the PA under I with which they are coindexed. If it is true that the PA in reflexives is not base-generated under I and consequently is not assigned the external theta-role as suggested above then it follows that a by-phrase should not be able to appear in reflexives. This prediction is borne out by the following examples where the reflexive NP is the agent argument inside the by-phrase :

- (26) a. \*I Maria xtenis-ti-ke apo ton eafto tis  
the Maria-NOM comb-PA-3s by the self her  
"Maria coabed by herself." (Literally)
- b. \*O Yanis pli-thi-ke apo ton eafto tu  
the Yani-NOM wash-PA-3s by the self his  
"Yanis washed by himself." (Literally)

Notice, however, that it can be argued that these examples are independently excluded, presumably for the same reason that their English counterparts (gloss) are excluded under the reading where the reflexive argument is the agent and is coreferential with the subject.

However, it is not uncommon for reflexive arguments in MG to be associated with the agent theta-role and appear in the subject position as is illustrated by the following examples :

- (27) a. O eaftos tu katestrepse ton Yani  
the self-NOM his destroyed the Yani-ACC  
"Himself destroyed Yani." (Literally)
- b. O eaftos tu pedhevi ton Yani  
the self-NOM his torment the Yani-ACC  
"Himself torments Yani" (Literally)

Moreover, reflexive arguments can easily appear in by-phrases of passive constructions :

- (28) a. O Yanis katastraf-i-ke apo ton eafto tu  
the Yani-NOM destroy-PA-3s by the self his  
"Yani was destroyed by himself." (Literally)
- b. O Yanis pedhev-e-te apo ton eafto tu  
the Yani-NOM torment-PA-3s by the self his  
"Yani was tormented by himself." (Literally)

It should be clear from these facts that (26a&b) are legitimate examples which bear out the prediction made by the analysis suggested above that reflexives are expected not to admit by-phrases for the reason stated above.

The second prediction that the analysis makes is that reflexives should not be able to admit an accusative NP object since the internal position does not project, the internal theta-role having been saturated by the PA :

- (29) a. \*I Maria xtenis-ti-ke ta malia tis  
the Maria-NOM comb-PA-3s the hair-ACC her  
"Maria combed her hair."  
b. \*O Yanis pli-thi-ke to prosopo tu  
the Yani-NOM wash-PA-3s the face his  
"Yani washed his face."

Note that the active counterparts of these sentences where the PA is lacking and consequently the internal theta-role of the verb is projected are grammatical :

- (30) a. I Maria xtenise ta malia tis  
the Maria-NOM combed the hair-ACC her  
"Maria combed her hair."  
b. O Yanis epline to prosopo tu  
the Yani-NOM washed the face-ACC his  
"Yani washed his face."

In these sentences the NP object receives the internal theta-role of the verb as well as the accusative Case.

However, this prediction runs into apparent problems with respect to a class of reflexive verbs which do seem to admit an accusative NP in the position immediately following the verb (cf. Theofanopoulou-Kontou D. (1981)):

- (31) a. O Yanis promit hef-ti-ke trofima  
the Yani-NOM provide-PA-3s food-ACC  
"Yani provided himself with food."  
b. I Maria forto-thi-ke vivlia  
the Maria-NOM load-PA-3s books-ACC  
"Maria loaded herself with books."

To understand the nature of the verbs in these sentences I suggest that we examine first their active counterparts, that is the counterparts of these verbs where the PA is absent :

- (32) a. O Yanis promit hef-s-e ton eaf to tu trofima  
the Yani-NOM provided-3s the self-ACC his food-ACC  
"Yani provided himself with food."  
b. I Maria forto-s-e ton eaf to tis vivlia  
the Maria-NOM loaded-3s the self-ACC her books-ACC  
"Maria loaded herself with books."

It is clear from these examples that the verbs in question are

ditransitive, in the sense that they subcategorise for two accusative NPs just like the double accusative verbs discussed in 4.2. We concluded in this section that the NP non-adjacent to the verb receives the accusative Case inherently. This conclusion extends logically to the non-adjacent NPs in (32a&b).

Given this conclusion and the facts illustrated by (32a&b) it is plausible to assume that the accusative NPs in (31) are assigned Case inherently. The theta-role they receive, on the other hand, is independent of the theta-role assigned to the adjacent argument given the ditransitive nature of the verb. In this sense these examples cease to be problematic for our analysis. Given our conclusion that the effect that the lexical process of attaching the PA to the verb has is that it decreases the valency of the verb by one argument, what the analysis predicts with respect to ditransitive verbs such as those in (32) is that they should not be able to admit two accusative NPs when they have the PA attached to them. That this prediction is correct is illustrated by the following examples :

(33) a. \*O Yanis promithef-ti-ke ton eafto tu trofima  
the Yani-NOM provide-PA-3s the self-ACC his food-ACC  
"Yani provided himself with food."

b. \*I Maria forto-thi-ke ton eafto tis vivlia  
the Maria-NOM load-PA-3s the self-ACC her books-ACC  
"Maria loaded herself with books."

These sentences are excluded for the same reason that examples (29a&b) are excluded, namely they contain an argument for which the argument structure of the reflexivised verb does not provide in terms of a theta-role and a corresponding X-bar position.

## 5.2 Syntactic Reflexives

MG has another class of reflexive constructions which differ from the constructions discussed above in that they exhibit a reflexive clitic in addition to the PA :

(34) a. O Yanis afto-katastraf-i-ke  
the Yani-NOM self-destroy-PA-3s  
"Yani destroyed himself."

b. I filakismeni afto-pirpoli-thi-kan  
the prisoners self-burn-PA-3p  
"The prisoners burned themselves."

The important fact about these constructions is that it is the reflexive clitic which gives them the reflexive reading. Without the reflexive clitic the sentences in (34) are straightforward passive constructions which can take an optional by-phrase :

- (35) a. O Yanis katastraf-i-ke (apo tis sinehis apergies)  
the Yani-NOM destroy-PA-3s by the continuous strikes  
"Yanis was destroyed (by the continuous strikes)
- b. I filakismeni pirpoli-thi-kan (apo ton exthro)  
the prisoners-NOM burn-PA-3p by the enemy  
"The prisoners were burned (by the enemy)."

Given this fact there is a sense in which these constructions are essentially passive constructions which take on a reflexive reading as a result of the presence of the reflexive clitic.

If this is the case then it is only plausible to assume that these sentences have a derivation that is identical to that of passives discussed in 4.1. above. The PA is base-generated under I where it receives the external theta-role of the verb as well as the accusative Case subsequent to V-movement to I. Consequently, the object NP raises to the Spec of IP position where it receives nominative Case from AGR under I. This analysis makes the reflexive constructions in (35) essentially different from the reflexive constructions discussed above in that their subject is a derived subject. As to the reflexive reading that the sentences in (35) have I will assume that it is the consequence of the presence of the reflexive clitic under I which has an anaphoric nature, formally represented in terms of the feature [+anaphoric] which it transmits to the PA. In other words, the presence of the reflexive clitic anaphorises the PA, thus resulting into the reflexive reading conveyed. This process can be assumed to operate through a process of coindexation between the reflexive clitic and the PA. Coindexation between these two elements would also imply that they share the external theta-role originally assigned to the PA. In different terms, the reflexive clitic shares the external theta-role with the PA in the same way that the reflexive NP inside the by-phrase in examples such as (28a&b) was assumed to share the external theta-role with the PA through a process of coindexation. Coreferentiality between the reflexive clitic and the derived subject implies that the clitic-PA chain is also coindexed with the subject.

Assuming this analysis to be correct an apparent problem arises with respect to the fact that the subject of the constructions in (35) apparently can control the subject of a purposive clause as illustrated by the following examples :

- (36) a. O Yanis afto-katastraf-i-ke ja na apofigi tin pliroini ton xreon  
Yani-NOM self-destroy-PA-3s for avoid the payment-ACC the debts  
"Yani destroyed himself to avoid paying his debts."
- b. I filakismeni afto-pirpoli-thi-kan ja na min pesun s-ta xerja  
the prisoners self-burn-PA-3p for SUB not fall to-the hands  
tu exthru  
the enemy-GEN

"The prisoners burned themselves to avoid falling in the hands of the enemy."

Recall that it was said above that generally derived subjects in MG cannot control the subject of a purposive clause. According to the analysis suggested above the subject of syntactic reflexives is a derived subject, hence the apparent problem.

However, looking at the examples in (36) more carefully we realise that it is not necessarily the case that it is the derived subject which controls the subject of the purposive clause. It is simply the fact that the derived subject is coreferential with the clitic-PA chain which gives this impression. The actual controller, I will assume, is in fact the clitic-PA chain and not the derived subject. This control phenomenon is basically similar to the control phenomenon known to exist in English constructions such as The ship was sunk to collect insurance where the controller is assumed by Jaeggli (1986), Baker (1988), among others, to be the PA under I. Analysed as such the examples in (36) turn out not to be problematic.

To summarise, I have argued in this section that lexical reflexives differ from passives and middles in that the PA attaches to the verb in the lexicon instead of syntax. Consequently the PA takes up the internal theta-role of the verb necessary for its licensing as well as the accusative Case necessary for the assignment of the theta-role under the Visibility Hypothesis. The external theta-role of the verb is assigned to the subject base-generated in the Spec of IP. Subjects of reflexives differ from subjects of passives and middles in that they are not derived. Syntactic reflexives, on the other hand, were argued to be essentially passives which take on a reflexive reading as a result of the presence of the reflexive clitic under I which has the effect of anaphorising the PA. The subject of syntactic reflexives, like the subject of passives and middles, is a derived subject.

## 6. Conclusion

I have tried to argue in this paper that the differences between passives and middles on one hand, and between passives, middles and reflexives on the other follow from the properties of the PA and the level at which it attaches to the verb. The basic property of the PA is that it requires a theta-role necessary for its licensing. The type of theta-role that the PA receives is determined by its position in the clause. When the PA is base-generated outside VP it receives the external theta-role of the verb and when it is base-generated inside VP it receives the internal theta-role of the verb. I have argued that in passives and middles the PA is base-generated under I and attaches to the verb through a process of syntactic affixation, whereas in reflexives the PA is base-generated inside VP already attached to the verb.

From the assumption that the PA requires a theta-role follows a chain of consequences as a result of its interaction with the principles of UG, thereby accounting for the properties of the constructions in which the PA appears. For the PA to be able to receive a theta-role it has to have Case under the Visibility Hypothesis. When the PA is base-generated under I, as

is the case in passives and middles, the verb has to move to I to be able to assign Case to the PA. As a result of assigning its Case to the PA the verbal chain looses its ability to assign Case to the object of the verb. As a consequence of this the object NP is forced to move to the Spec of IP position where it receives nominative from AGR under I. This chain of consequences accounts for the fact that the subject of passives and middles is a derived subject which in turn accounts for the facts that it always has a non-agent reading and that it cannot enter into control relations.

The differences between passives and middles have been attributed to the fact that the PA in middles has an imperfective nature which in turn requires an arbitrary theta-role. This accounts for the generic reading that middles have, which is lacking in passives, as well as for the fact that, contrary to passives, they admit a generic by-phrase but not a specific one, and that they require the presence of a manner adverb.

When the PA attaches to the verb in the lexicon, as is the case in reflexives, another chain of consequences follows which are also determined by the requirement that the PA have a theta-role. In its position inside VP the PA can only be assigned the internal theta-role of the verb. To be able to receive a theta-role the PA must have Case. Therefore the PA takes up both the internal theta-role of the verb and its Case, thus preventing them from projecting in the form of an X-bar position. What follows from this is that the verb assigns its external theta-role to a different argument, namely the subject. This makes the subject of reflexives a non-derived subject unlike the subject of passives and middles, thus accounting for the facts that it has an agent reading and that it can enter into control relations. The reflexive nature of these constructions has been accounted in terms of the assumption that when the PA attaches to the verb in the lexicon it takes on an anaphoric nature which then requires it to be coindexed with the subject for the purpose of satisfying binding conditions.

In presenting the analyses above I have been implicitly emphasising the main argument of the paper stated in the abstract that passives, middles and reflexives do not have an existence as separate constructions with different structural properties but are simply manifestations of the properties of the PA and their interaction with the principles of UG.

FOOTNOTES

\*In preparing this paper I was guided by the insightful comments of the following people: Hagit Borer, Misi Brody, Rita Manzini, Jamal Ouhalla and Neil Smith. Special thanks to Neil Smith for the endless discussions we had as well as for his constant encouragement.

1. Throughout the paper I will use the expression "passive verbs" to refer to verbs which have a PA attached to them, while I will use the expression "active counterparts" to refer to the same verbs which appear without the PA attached to them. The reason for saying this is that there exist in MG a class of verbs which appear with the PA but do not have active counterparts. I will not deal with this class of verbs in this paper. Moreover, I will use the term "middle" in a sense that is different from the sense usually used by Greek traditional grammarians. My reasons for calling the verbs in question middles are stated below.

2. I am taking here a neutral position as to whether sentential (nominative) subjects in MG are topics, occupying a topic position that is distinct from the structural subject position (cf. Philippaki (1987)) or they are real structural subjects. If they are topics then what I will be referring to as subject can be assumed to be a pro which is coindexed with the topic and which acts as the structural subject which licenses the VP predicate. The pro subject is assigned the external theta-role of the verb as well as nominative Case independently of the topic. The nominative Case which appears on the topic simply reflects the nominative Case assigned structurally to the pro.

3. Originally, my assumption was that the experiencer theta-role is an internal theta-role and the effect that the process of causativisation has is that it simply introduces a new argument. However, it has been brought out to my attention by Misi Brody that the experiencer theta-role can alternatively be assumed to be an external theta-role and that the effect that causativisation has is that it internalises the experiencer argument and at the same time introduces a new external argument. This assumption is consistent with Burzio's generalisation while my original assumption is not. Burzio's generalisation states that verbs which do not assign accusative to their internal argument also fail to assign an external theta-role.

4. The constructions that I am referring to here as middles have a number of properties in common with the si-constructions in Italian that Belletti (1980) refers to as morphological passives. Belletti argues that the si element in these constructions is base-generated under I and is assigned the external theta-role of the verb as well as the accusative Case. Like middles in MG this particular class of si-constructions in Italian also have an arbitrary reading.



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