

The typology of middle constructions, ergative verbs and passive voice: how similar are they after all* ?

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Abstract

In the current linguistic literature for Greek the ergative (unaccusative) verbs are treated as verbs that typically appear in mcs (Theophanopoulou-Kontou 1983-84, 1997, Condoravdi 1989, Tsimpli 1989, Kakouriotis 1994). The purpose of this paper is to present an overview of the differences between middle constructions and ergatives on the one hand, and middle constructions and passives on the other, in order to show that these three constructions cannot be collapsed under the same type.

0. Introduction

As middle constructions (mcs) in Greek I characterize the following sentences, whose verbs exhibit the mediopassive morphology *-(t)e* (Sioupi 1995b, 1996, 1997b, 1998):

- (1) To krasi pinete (efharista)
the wine-NOM drinks-PASS with pleasure
the wine drinks with pleasure
- (2) To ifasma plenete (kala)
the fabric-NOM launders-PASS well
the fabric launders well.

(3) and (4) exemplify typical ergative (unaccusative) sentences:

- (3) To plio vithizete
the ship-NOM sink 3SG-PASS
the ship sinks
- (4) I porta anigi
the door-NOM open 3SG-ACT
the door opens

while (5) and (6) are characterised as passives:

- (5) Xtizete to spiti
build-PASS the house-NOM
the house is built

* A preliminary version of this material appeared under the title "The Genericity of middles" as Sioupi 1997b.

- (6) potizete o kipos
water-PASS the garden-NOM
the garden is being watered.

Due to the similarities that those three categories have it is not easy to distinguish them. The similarities are: a) the thematic object which appears in the position of the subject, b) the mediopassive morphology *-te*, c) the fact they all appear in the 3rd person singular.

So, I will define **first** mcs and constructions with ergative verbs in the light of the properties that **mcs** exhibit but ergative verbs seem not to have (Sioupi 1997b, 1998) and **second**, I will claim that middle constructions and passive constructions are different in Greek, although they manifest the same morphology.

The claims that I make about mcs are:

1. Claims: MCs

- A. are generic sentences since they have all the characteristics of generic sentences,
- B. can be considered either as statements according to which subjects refer to a kind (kind referring or generic NP's) or as propositions which report a regularity that summarises groups of particular episodes or facts (characterizing sentences) (Krifka et al. 1995),
- C. are inherently generic like generic sentences and individual -level predicates,
- D. are categorical judgments, since they occur only in SVO order.

2. Claims on 1A

In order to examine if mcs are truly generic, I will give a definition of the term 'genericity', 'generic statements' and present their properties. So, **generic statements**:

- a) are stative, since they appear in SVO order,
- b) are based on lexically non-stative predicates (stage-level),
- c) are non monotonic and intensional,
- d) are not context-sensitive,
- e) do not presuppose an existence,
- f) allow for exceptions.

The characteristics d), e) and f) are related with monotonicity and intensionality. These are the essential characteristics of kind-denoting and characterising sentences. The question is if mcs have the above characteristics.

3. Analysis on 1A:

- a) mcs are stative and not eventive since they appear in SV order and not in VS,
- b) the predicates are non-stative (*ehete ('have'), *kserete ('knows'), *pistevete ('believe') etc.),
- c) mcs are non monotonic and intensional.

There are two types of monotonicity (Hoeksema 1986, Zwarts 1993, a. o) *downward entailing* (or monotone decreasing) and *upward entailing* (or monotone increasing).

The *definition*:

A function f is *downward* entailing (DE) iff for every arbitrary element X, Y it holds that:

$$(7) \quad X \subseteq Y \Rightarrow f(Y) \subseteq f(X)$$

Expressions which denote DE functions allow inference from sets to subsets in their scope.

A function f is *upward* entailing iff for every arbitrary elements X, Y it holds that:

$$(8) \quad X \subseteq Y \Rightarrow f(X) \subseteq f(Y).$$

In these contexts inference from set to supersets is supported.

Using the example (1) *to krasi pinete efarista* ("the wine drinks with pleasure"), the conclusion which can be drawn is that mcs are non monotonic, exactly as generic sentences.

For *downward entailing* it holds that:

$$(9) \quad \begin{array}{l} X = \text{aspro krasi ('white wine')} \quad Y = \text{krasi ('wine')} \\ \text{Iff } X \subseteq Y \Rightarrow f(Y) \subseteq f(X) \\ \text{a. to krasi pinete efarista ('the wine drinks with pleasure')} \\ \text{b. } [/\text{aspro krasi}/] \subseteq [/\text{krasi}/] \end{array}$$

From (a) and (b) follows (c): to aspro krasi pinete efarista ('the white wine drinks with pleasure').

This is not, however, the only available inference. It is not necessary that the white wine drinks with pleasure, since the wine drinks with pleasure. So, mcs are not downward entailing, but neither they are *upward entailing*, as (10) shows:

$$(10) \quad \begin{array}{l} X = \text{aspro krasi ('white wine')} \quad Y = \text{krasi ('wine')} \\ \text{Iff } X \subseteq Y \Rightarrow f(X) \subseteq f(X) \\ \text{a. to aspro krasi pinete efarista ('white wine drinks with pleasure')} \\ \text{b. } [/\text{aspro krasi}/] \subseteq [/\text{krasi}/] \end{array}$$

From (a) and (b) we derive c: to krasi pinete efarista ('the wine drinks with pleasure').

Since this conclusion is clearly not true, mcs are not upward entailing.

So, in mcs is neither upward nor downward entailing monotonicity satisfied. The reason is that mcs are generic sentences and generic sentences are non monotonic. The non monotonicity of mcs is not authentic, but it is due to the fact that generic sentences allow for exceptions.

As far as intensionality is concerned, the principle of intensionality is given in (11):

$$(11) \quad \begin{array}{l} \textit{Principle of intensionality} \text{ (Keenan \& Falz 1985):} \\ \text{For some situation where } s = t \text{ the following holds: } [t/s] \varphi \leftarrow / \rightarrow \varphi. \end{array}$$

The formula $[t/s] \varphi$ indicates the non substitution of the expression s for the expression t nowhere in the expression φ . The intensionality is related with the fact that generic sentences are not context sensitive, i.e they are not specific and unique. It

is also connected with the term presupposition of existence since it is not presupposed that they exist.

The same characteristics holds for mcs, too. An expression *s* can not be substituted for another expression *t* in ϕ , as (12) shows:

(12) [kokkino krasi (red wine)/aspro krasi (white wine)] $\phi \leftarrow / \rightarrow$ [aspro krasi] ϕ (white wine).

Mcs are not sensitive in context, which means that they are not specific and unique. In a sentence like *to krasi pinete efharista* ('the wine drinks with pleasure') it is not necessary that there exist a wine.

In sum, mcs have all the characteristics of generic sentences.

4. Claims on 1B

According to Krifka et. al. (1995: 2), there are two classes of phenomena that express genericity: a) *reference to a kind*: The subjects do not refer to a specific object or to a set of objects, but to a kind:

(13) orchids are flowers, the orchid is a flower.

b) The second reading in which the term genericness is used has to do with propositions that do not express specific episodes or isolated facts, but report a regularity that summarises groups of particular episodes or facts. The following sentence is a generalisation of a specific fact:

(14) the earth turns around the sun.

So, for the first reading the term 'kind-referring or generic NP's' is used and for the second reading the term 'characterizing sentences or generic sentences'.

5. Analysis on 1B

Mcs are generic in both senses: a) they are statements whose subjects do not refer to a specific object, but to a kind, b) they express regularities and not specific episodes. They report a kind of general property.

These sentences are opposed to 'particular sentences' which express statements about particular events.

The constructions which enforce a characterizing reading according to Krifka (1995: 9) are:

a) adverbs like *usually, typically, always, often, sometimes, rarely, never* etc that lead to lawlike characterizing sentences:

(15) John *usually/always/often/rarely/never* smokes a pipe.

The same adverbs are found in mcs:

(16) *to vivlio sinithos, panta, sihna, merikes fores, spania, pote* diavazete efharista

the book *usually/always/often/rarely/never* reads with pleasure,

b) the derivation of deverbal adjectives using *-able* yields a characterizing interpretation:

(17) the book is *readable*.

The same suffix is implied in mcs too: *to nero pinete* ("the water is drinkable"),

c) verbal predicates in the middle voice have a characterizing interpretation. Exactly the same is found in mcs, too:

(18) this shirts *washes easily*.

d) Characterizing sentences are stative.

As characterizing sentences mcs do not express accidental properties. They state properties that are in some way essential and never report a specific event. They are also stative.

6. Claims on 1C

Adopting Chierchia's proposal (Chierchia 1995) that generic sentences and individual-level predicates are inherently generic, I will propose that mcs are inherently generic, too.

7. Analysis on 1C

For the cases of mcs which appear accompanied by an adverb I will propose that there is a generic operator in the lexical entry. Since the generic operator shares many properties with the adverbs of quantification (Q-adverbs), as Chierchia has shown for generic sentences, this operator is just a Q-adverb with a special modal character. The interpretation of mcs is close to that of the corresponding sentence with an *always*-like Q-adverb. The Q-adverbs and the generic operator share the same property: they express a relation between a restrictor and a scope.

So, the sentence (1) is interpreted as follow:

(Operator)	[Restrictor]	(scope)
(19) GEN _s (always)	when someone is drinking wine in s	drinks wine with pleasure in s

The logical representation of 'pinete' is in (20):

(20) $(\lambda x \text{ Gen}_s [\text{in}'(x,s)] [\text{pinete}' \text{'drinks}'(x,s)])$,

where x is the subject, i.e the wine and s the situation. The interpretation of (20) is: *panta otan to kراسi pinete stin s, pinete efharista* ("always when the wine drinks in s, it drinks with pleasure"). This representation concerns categorical judgments. Mcs are

interpreted as categorical statements in which the topic is in the restrictor, as I will show in D.

8. Claims on 1D.

Mcs appear always in order SV:

- (21) to vivlio diavazete epharista
the-book NOM reads -3S with pleasure
the book reads with pleasure

and never in VS:

- (22) *diavazete to vivlio epharista
reads-3S the book with pleasure
the book reads with pleasure.

The reason why the subject appears obligatory in the first position is connected to the fact that mcs are generic statements. Generic statements:

a) correspond to categorical judgments which appear always with a topic as the subject of the predication. In categorical judgments the predicates are like individual level predicates (cf. Kuroda 1972, Ladusaw 1994, Alexiadou 1996, Giannakidou 1998) and not like stage level predicates. They express properties. Generic statements, like stative predicates, are suppressed under VSO (Alexiadou & Anagnostopoulou 1996).

9. Analysis on 1D

A. In mcs is only the SV order acceptable because mcs:

- a) correspond to categorical judgments, since they appear always with a topic/notional subject as the subject of a predication,
b) do not describe events. There is no telic interpretation which could permit a VSO order (Calabrese 1992),
c) appear in the imperfective aspect which is also incompatible with a telic interpretation.

B. The predicates which appear in mcs are stage-level which become individual-level (i-level) due to the generic operator, just like the predicates in categorical judgments. Since they are i-level they do not have an event role, they express a permanent property of their grammatical subject (Ackema & Schoorlemmer 1994: 4 for English and Abraham 1995 for German). Although in Greek the word order is VSO when it has the function to introduce a new information (Philippaki 1985, Tsimpli 1990, Alexiadou 1996, Alexiadou & Anagnostopoulou 1995, 1996), in mcs the word order is SV and the subject has the thematic role of theme. In the literature the word order SVO is analysed as involving a base generated topic (Philippaki 1985, Tsimpli 1990, Alexiadou & Anagnostopoulou 1995, 1996). Preverbal subjects are left dislocated. They are situated in the Spec position of a Topic Phrase and they receive default Nominative Case (Alexiadou 1996: 8, Alexiadou & Anagnostopoulou 1996)¹. For mcs I propose that the grammatical subject is situated in a position out of the VP,

¹ For a different opinion about the DP-subject see Philippaki-Warburton & Spyropoulos 1997.

because the verb in mcs is unergative² (Sioupi 1998). So, it can be claimed to be situated in the Spec position of a Topic Phrase, since mcs appear always with a topic/notional subject.

To sum up, mcs are generic sentences, since they have all the characteristics of generic sentences.

Next, I will refer to constructions with ergative verbs and I will show that ergative verbs can not appear in mcs. The claim is:

10. Claim

Ergative/inchoative verbs (*i porta anigi/klini* "the door opens/closes", *to hioni lioni* "the ice melts") can not build mcs.

11. Analysis on 10

Like mcs, ergative verbs can appear with imperfective aspect and in this case they are generic.

The sentence (23) is a construction with an ergative verb (*anijo*). The aspect is imperfective and the reading is atelic, i.e:

- (23) *kathe fora pou esprohna tin porta, i porta anije*
every time I pushed the door, the door opened.

We have a generic/habitual statement with an implicit Q-adverb "panda" as the representation in (24) shows:

- (24) PANTAs [kathe fora pou esprohna tin porta stin s] [i porta anije stin s]
ALWAYSs [every time I pushed the door in s] [the door opened in s].

Ergative verbs, unlike mcs can appear also with perfective aspect. In these cases the reading is episodic, which means that the sentence denotes an event (25):

- (25) *i porta anikse*
the door opened.

From the above examples follows that the constructions with ergative verbs can appear with imperfective as well as with perfective reading. In the latter case they are episodic but in the first case they can have all the characteristics of mcs. That means that in this case they are generic since they:

A) are stative, **b)** are based on lexically non-stative predicates (stage-level),
c) are non monotonic and intensional, **d)** are not context-sensitive, **e)** do not presuppose an existence, **f)** allow for exceptions.

But in contrast to mcs, constructions with ergative verbs:

B) can not be considered either as kind referring or generic NP's, or as characterizing sentences, since they do not denote a property or a characteristic. They are generic/habitual statements when they appear with imperfective aspect and they denote an event when they appear with perfective aspect,

² For a same proposal in Dutch see Ackema & Schoorlemmer (1995).

C) are not inherently generic like mcs. The genericity is not inherent to the semantics of the ergatives, as it is to the semantics of the middles. In ergative constructions it is external to the verb. Middles are ungrammatical with perfective aspect, (see (26)), unlike ergatives that are fully compatible (see 27):

- (26) *To vivlio diavastike efkola
the book was read easily
(27) I porta anikse efkola
the door opened easily.

So, the real contrast is inherent genericity versus compatibility with genericity. Middles fall within the first, ergatives within the second.

D) do not correspond to categorical but tothetic judgments, since they display in VSO order and they can be understood as an answer to the question 'what happened?' as (28) exemplifies³:

- (28) what happens?
a. lioni o pagos
melts the ice
b. aniji i porta
opens the door.

So, we conclude that ergatives differ essentially from middles.
As a last point I will examine the differences between mcs and passives.

11. Passive

As far as the differences between mcs and passive is concerned, I will show that the same properties that are valid for ergatives (A,B,C,D) are also met in passive constructions. Thus, a passive sentence like (29):

- (29) to spiti htizete efkola
the house-NOM build-PASS easily
the house is built easily

A) can have a generic/habitual interpretation, when it appears with imperfective aspect (ex.29), but can also have an episodic reading, as when it appears with perfective reading (*to spiti htistike* "the house is built"). In the first case it means: *every time I had a house built it was built easily*, and in the second denotes an event. But there are further differences between mcs and passives. Passives:

B) can not be considered either as kind referring or generic NP's, or as characterizing sentences, because they do not denote properties but events,

³ About the distinction betweenthetic and categorical judgments cf. Ladusaw 1994, Alexiadou 1998, Alexiadou & Anagnostopoulou 1996, Giannakidou 1998 a.o.

C) are not inherently generic like middles. Like ergatives the genericity is not inherent to the semantics of passives; it is external to the verb. Middles are ungrammatical with perfective aspect, but passives are grammatical.

D) do not correspond to categorical judgments but tothetic, since they display in VSO order and they can be understood as an answer to the question 'what happened?':

- (30) what happened?
- a. Xtistike to spiti
build-PASS the house-NOM
the house was built
 - b. potistike o kipos
water-PASS the garden-NOM
the garden was watered.

Another difference between middles and passives that is very crucial, is the appearance of the 'by-phrase'. I claim that in mcs, unlike passives there is no agent implied and that's the reason that it does not appear in syntax in a 'by-phrase'⁴.

As I mentioned, middles are inherently generic. The representation of a mc does not include an agent as (31) shows:

- (31) GEN_{x,s} [krasi x in s & pinete x in s] [pinete-efxarista x in s].

where x is the subject, i.e the wine and s the situation.

This representation refers to situations. The reason that the agent is absent from this representation is that he is connected with events and not with situations. Since mcs are stative and not eventive they do not imply an agent, even not with an arbitrary reading (cf. Sioupi 1998).

12. Conclusions

Mcs fall into a different class from ergatives and passives, since they have all the characteristics of generic sentences which the constructions with ergative verbs and passive constructions do not.

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⁴ See Condoravdi (1989) and Tsimpli (1989) for a different opinion.

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