The Middle Voice in Ancient Greek. A study in Polysemy
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THE MIDDLE VOICE IN ANCIENT GREEK

A Study in Polysemy

RUTGER J. ALLAN
THE MIDDLE VOICE
IN ANCIENT GREEK

A Study in Polysemy

ACADEMISCH PROEFSCHRIFT

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aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
Prof.mr P.F. van der Heijden

ten overstaan van een door het college voor promoties ingestelde
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op dinsdag 10 december 2002, te 12 uur

door Rutger Jakob Allan
geboren te Velsen
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Introduction

1.0 The Problem

The puzzling diversity of the different usage types of the middle and passive voice in Greek has been the subject of debate ever since the times of the ancient grammarians. The nature of the problem becomes apparent when considering the brief inventory of middle uses given by Rijksbaron (cf. 1994: 159-60, slightly adjusted).

(i) **Passive use**
The patient is the subject. The aorist is of the passive type (i.e. in -(θ)η-).

(1) αἰ νῆες παρεσκευάσθησαν ὑπὸ τῶν Ἀθηναίων
   'The ships were prepared by the Athenians'

(ii) **Direct reflexive use**
This use occurs with agentive transitive verbs, typically verbs of grooming. The subject-referent performs the action on himself. Agent and patient are co-referential. In contrastive contexts a reflexive pronoun is added as direct object. The aorist is of the sigmatic middle type. E.g.:

(2) a. ἔλουσάμην (ἐμαυτόν) 'I bathed (myself)'
b. παρεσκευάσάμην (ἐμαυτόν) 'I prepared myself'

(iii) **Indirect reflexive use**
This use occurs with agentive transitive verbs. The subject-referent performs the action in his own interest. The aorist is of the sigmatic middle type. E.g.:

(3) παρεσκευασάμην τὰς ναῦς
   'I prepared the ships in my own interest'

---

1 With the term *middle voice* I refer to the inflectional category in Greek, i.e. in the present stem the middle voice includes middle-inflected verbs with passive meaning. The passive voice (formed with the suffix -(θ)η-) is only found in the aorist and future stem.

2 This inventory is only meant as a brief survey of the different middle uses. In ch. 2, I will describe the middle uses more extensively.
(iv) **Pseudo-reflexive and pseudo-passive use**

The corresponding active transitive verbs are causative. The middle verb denotes either that the subject brings about a change of state\(^3\) to himself (pseudo-reflexive; typically verbs of movement), or that the subject undergoes a change, no agent being present (pseudo-passive; typically verbs of emotion/cognition and physical processes). The aorist is of the passive type. E.g.:

(4) a. ἀπαλλάξθην 'I went away'
b. ἐφοβῆθην 'I became afraid'
c. ἔτάκην 'I melted'

(v) **Media tantum and Passiva tantum**\(^4\)

The middle only verbs have an aorist of the middle form, and are agentive. The passive only verbs have an aorist of the passive form, and are mostly non-volitional. If so, they are similar to *pseudo-passives*.

(5) *Media tantum*: ἰτωσάμην ουτόν 'I accused him', ἰλάμην 'I jumped'

*Passiva tantum*: ἴσθην 'I enjoyed myself'

Similar enumerations of middle uses are found in all grammars of Ancient Greek, e.g. Goodwin (1895: 265-8), Kühner-Gerth (I: 100-29), Gildersleeve (1900-11: 64-79), Stahl (1907: 42-74), Smyth-Messing (1956: 389-398), Schwyzer-Debrunner (II: 228-41), García Gual (1970), and Martínez Vázquez, Ruiz Yamuza & Fernández Garrido (1999: 229-253).\(^5\) However, such lists almost always leave the reader with the following questions:\(^6\)

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\(^3\) The notion *change of state* implies that an entity is in a certain state at moment \(T_1\) that is different from the state it was in at \(T_0\). This means that, for instance, a verb like *hit* does not denote a change of state, since the direct object may be in the exact same state after it was beaten as it was before. Verbs that do denote changes of state are *break, melt, destroy, remove, frighten, persuade*. Changes of state can be subdivided into physical and mental changes of state, and changes of location.

\(^4\) Media tantum (or middle-only verbs) are middle verbs that do not have active counterparts. They are sometimes called *deponentia*, a term borrowed from Latin grammar. This term is less adequate since it suggests that these verbs have "laid off" (i.e. lost) their active forms. There is no historical evidence that this is what actually happened. In the present study, the term *media tantum* (or middle-only verbs) will be used as a covering term to refer both to *media tantum* in the strict sense (i.e., verbs with middle aorist forms) and to *passiva tantum* (verbs with passive aorist forms), cf. Rijksbaron (1994\(^2\): 157). I am aware, however, that this morphological dichotomy has important implications, especially regarding the semantics of the verbs concerned. In fact, chapter 3 will be devoted almost exclusively to the relation between form and meaning in the aorist stem.

(I) Is there a semantic element common to these usage types? If so, how should it be defined?

(II) Assuming that the various middle uses constitute a polysemous structure: in what way are the middle uses related to one another?

(III) What is the explanation of the differences in aorist formation?

Until recently, the middle voice has been the exclusive domain of classical and Indo-European linguists. During the last decades, however, the middle voice has become the object of increased interest in typological research. One of the factors that brought about this increased interest is the striking similarity that middle voice systems display across languages, even in those which are genetically non-related. Of great importance to the recent fruitful research on middle voice phenomena is the insight that reflexive systems - as those found in many of the modern European languages - are functionally highly similar to (inflectional) middle voice systems as we find them in Ancient and Modern Greek and Sanskrit. On account of this remarkable functional similarity between reflexive and middle voice systems (here used in the strict sense), Kemmer (1993) subsumes both grammatical systems under a single, semantically defined notion middle voice. Middle voice systems and reflexive systems are not only found in ancient languages like Greek, Latin and Sanskrit, but also in modern European languages like, for example, Romance, Slavic, Germanic (English being a notable exception), and in non-Indo-European languages, as in Tamil (Dravidian) and Fula (Niger-Congo), see Klaiman (1991).

Major contributions to our knowledge of middle voice phenomena, most of which are from a cross-linguistic standpoint, are: Faltz (1977), Shibatani (1985, 1988), Lichtenberk (1985), Geniušienė (1987), Croft, Shykrok & Kemmer (1987), Klaiman (1988, 1991, 1992), Kemmer (1993, 1994), Fox & Hopper (1994), and Givón (1994). Besides these general works on middle voice phenomena, several important language-specific studies have appeared during the last decades. These include the works of Gerritsen (1990, 1992) [Russian], Maldonado (1999) [Spanish], and Manney (2000) [Modern Greek].

Apart from studies that are concerned exclusively with middle-reflexive systems, there have been a number of important developments in linguistic theory that may increase our insight into the middle voice as a grammatical category. These developments will be the topic of the following sections. In section 1.1, I will discuss the notion of Prototypical Transitivity (Hopper & Thompson 1980) and its crucial importance to voice distinctions. In section 1.2, the nature of complex polysemous categories (Lakoff 1987, Langacker 1987, 1991a, 1991b, 2000) and the notion of category prototype will be discussed.

---

6 Gonda (1960: 31) expressed his discontent about the existing treatments of the middle voice in the following manner: "It is true that the old-fashioned enumerations of the functions of this category in class-books (...) created the impression of an incoherent mixture of functions, and that attempts to give a general definition laboured under delusions and vagueness: (...)".

7 Comprehensive studies on the semantics of other ancient Indo-European languages are: Neu (1968a, 1968b) [Hittite], Flobert (1975) [Latin], Gonda (1979) [Vedic Sanskrit], Schmidt 1969 [Tocharian].
1.1 Voice: some basic notions

1.1.1 The Prototypical Transitive Clause

Voice alternations can be characterized as encodings of different choices of clausal subject (cf. Langacker 1991a: 335). For example, the familiar passive construction can be described as a marked expression of the special configuration in which the expected subject is bypassed in favour of a less typical subject. It has often been observed that voice alternations can be fruitfully described as markings of departures from the prototypical transitive event (Hopper & Thompson 1980; Givón 1984: 157, 2001a: 126-8; Langacker 1991a: 335). The importance of the notion of prototypical transitivity for grammatical organization was first fully recognized by Hopper and Thompson in their seminal article published in 1980. On the basis of vast typological evidence they claimed that the grammatical category transitive is structured around a prototype that can be defined by means of a cluster of semantic properties. These properties are listed as follows (Hopper & Thompson 1980: 252: the terminology used is theirs):

Table 1: Semantic properties of the prototypical transitive clause

<table>
<thead>
<tr>
<th>Property</th>
<th>HIGH Transitivity</th>
<th>LOW Transitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Participants</td>
<td>2 or more participants</td>
<td>1 participant</td>
</tr>
<tr>
<td>B. Kinesis</td>
<td>action</td>
<td>non-action</td>
</tr>
<tr>
<td>C. Aspect</td>
<td>telic</td>
<td>atelic</td>
</tr>
<tr>
<td>D. Punctuality</td>
<td>punctual</td>
<td>non-punctual</td>
</tr>
<tr>
<td>E. Volitionality</td>
<td>volitional</td>
<td>non-volitional</td>
</tr>
<tr>
<td>F. Affirmation</td>
<td>affirmative</td>
<td>negative</td>
</tr>
<tr>
<td>G. Mode</td>
<td>realis</td>
<td>unrealis</td>
</tr>
<tr>
<td>H. Agency</td>
<td>A high in potency&lt;sup&gt;9&lt;/sup&gt;</td>
<td>A low in potency</td>
</tr>
<tr>
<td>I. Affectedness of O</td>
<td>O totally affected</td>
<td>O not affected</td>
</tr>
<tr>
<td>J. Individuation of O</td>
<td>O highly individuated</td>
<td>O non-individuated</td>
</tr>
</tbody>
</table>

Clauses can be ranked on a scale of transitivity according to whether they have properties in common with the Prototypical Transitive Clause. In other words, clauses can be more or less transitive. Hopper & Thompson (1980: 253) give the following examples:

(6) a. *Jerry likes beer*
b. *Jerry knocked Sam down*

<sup>9</sup> In this study, the term 'event' is used in a broad sense subsuming several, more specific, event types such as *states* (static; non-volitional), *processes* (dynamic; non-volitional), and *actions* (volitional). Thus it is roughly equivalent to Dik's term *State of Affairs* (Dik 1987).

<sup>9</sup> Following Dixon's example (Dixon 1979). A and O denote Agent and Object. These notions roughly coincide with transitive agent and patient.
Example (b) is much higher in transitivity than (a) because it displays the following properties:

- **Kinesis**: action
- **Aspect**: telic
- **Punctuality**: punctual
- **Affectedness of O**: total
- **Individuation of O**: high; referential, animate, and proper.

For each of the semantic properties of the prototypical transitive clause (Table 1), Hopper and Thompson have cited languages in which clauses that possess this particular property display transitive behaviour. Conversely, clauses that differ from the Transitive Prototype with regard to only one of these properties are found to display *intransitive* behaviour, even if they possess other prototypical transitive properties.

Of the features enumerated by Hopper and Thompson, Givón (1984: 20) considers two of primary importance: *agency* and *affectedness*. In this way, the prototypical transitive is primarily conditioned by:

(7) a. the presence of a visible, volitional, and controlling *cause/agent*; and  
b. the presence of a clearly visible result-registering *effect/patient*.

Furthermore, according to Givón, agency and affectedness (and, therefore transitivity) are strongly conditioned by the clausal property of *perfectivity*. The connection between these notions can be described as follows (Givón 1984: 157; italics are his):

(8) a. **Affectedness of patient**: "The more completed an event is, the more likely it is that the patient in fact registers to the full the effect of the action".  
b. **Effectiveness of agent**: "The more successfully completed the event is, the more likely it is that the agent was in fact the deliberate, direct, effective cause of that successful completion".

Examples of prototypical transitives given by Givón (1984: 20) are:10

(9) a. Mary cut the meat  
b. John destroyed the house

### 1.1.2 Langacker's Billiard-ball Model

The notion of prototypical transitivity also plays a major role in Langacker's *Billiard-ball model*. The Billiard-ball Model is a *cognitive model*. In Cognitive Grammar, it is claimed that meanings are to be analyzed in relation to *cognitive domains*. The notion of cognitive domain can be defined as "[a] context for the characterization of a semantic unit" (Langacker 1987: 147). For example, the meaning of the word *glass* evokes the cognitive domains of *space* [in which all concrete objects exist], of *shape* [typically cylindrical],

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10 More examples can be found in Givón (2001a: 127).
material [glass], size [easily held in the hand], but also more complex domains such as its typical function. The typical function of a glass could be characterized as an instrument used in the process of drinking: it is filled with a liquid that is suitable for human consumption, it is grasped and lifted with the arm, etc. Cognitive domains can, therefore, be viewed as knowledge bases relative to which the meaning of an expression can be assessed. The notion of cognitive domain is very similar to Lakoff’s notion of Idealized Cognitive Model (Lakoff 1987), and to other notions such as frame (Fillmore), scene, schema, or script.

The character of a cognitive domain can be of a more idealized or archetypal nature. Such an idealized cognitive domain can be referred to as a cognitive model, which brings us back to the Langacker’s Billiard-ball Model. The Billiard-ball model is an archetypal cognitive model that structures our conception of events. The model conceives the world as containing discrete objects which are constantly moving around, making contact with one another, and participating in energetic interactions (Langacker 1991a: 283). As a result of the interactions of different objects an action chain arises:

Fig. 1 Action Chain (Langacker 1991: 283)

One entity (represented by a circle) is charged with energy, and makes forceful contact with a second entity. As a result, energy is transmitted from the first source-entity to the second (this is shown as a double arrow). This entity is thereby driven into contact with a third, which again brings about a transmission of energy. This process can continue indefinitely, until, finally, an entity absorbs the energy and thereby undergoes a change of state. The simplest instance of an action chain is one in which the initial energy-source (which Langacker calls the head of the action chain) interacts directly with the final energy-sink (the tail of the action chain). This configuration is depicted in Figure 2:

Fig. 2 The Prototypical Transitive Event

Typically, as we have seen in the case of the word glass, a linguistic unit invokes multiple cognitive domains, and the number of domains evoked cannot be sharply delimited. This view can be characterized as the encyclopedic view of semantics (as opposed to the dictionary view). In the encyclopedic view, it is claimed that there is no specific boundary between linguistic and non-linguistic knowledge (cf. Langacker 1987: 154-166).
Here, the action chain head is the agent, and its tail the patient. In the Prototypical Transitive Event, the agent and the patient figure in their most prototypical role. Langacker characterizes agent and patient as follows:

(10) "The archetypal agent is a person who volitionally initiates physical activity resulting, through physical contact, in the transfer of energy to an external object. Its polar opposite is an archetypal patient, an inanimate object that absorbs the energy transmitted via externally initiated physical contact and thereby undergoes an internal change of state" (Langacker 1991a: 285)

The patient's change of state is depicted by a squiggly arrow in Fig. 2. It should be noted that Langacker's characterization of agent and patient concerns archetypes. Obviously, not every clause conforms to these archetypes since human experience is too rich and varied. For instance the archetypal patient, as described by Langacker, concerns an object that is affected by the event. However, an important class of patients that are similar to this archetype concerns affected objects. These are objects that have no prior existence but rather are created by the event itself, as in She built a house. Affected objects are generally not distinguished from affected objects by any special marking (see Langacker 1991a: 362).

The concept of the prototypical transitive event is also highly relevant to the grammatical relations of subject and object. The unmarked coding of the prototypical event is that the subject is the agent, and the object is the patient (see Langacker 2000: 25, Givón 2001a: 126, inter alii). Other, less-prominent participants in the event, such as instruments or experiencers, are typically coded by oblique cases or prepositional phrases.

This brings us to the issue of semantic roles. There is much controversy on the definitive number of semantic roles and their exact definition. Every linguistic theory, or perhaps even every individual linguist will posit a different inventory of roles that are, furthermore, defined differently. However, these inventories generally display a considerable similarity. In this study, Langacker's description of a number of archetypal semantic roles is adopted.

The list of semantic roles enumerated by Langacker (1991a: 285-7) is as follows:

(11) • agent and patient (see definition above)
• instrument: a physical object manipulated by the agent to affect the patient, thereby serving as an intermediary in the transmission of energy
• experiencer an animate entity engaged in a mental event
• zero: an entity that merely occupies a location or exhibits a static property.

Langacker's role archetypes listed above are of a highly abstract character. This is a reflection of their cognitive fundamentality and their ubiquitous manifestation in the

12 Semantic roles are also known as case roles, thematic relations, theta-roles, notional roles, and semantic functions.

13 Langacker also distinguishes the semantic role of mover. The mover, according to Langacker, is an entity that undergoes a change of location, as Rocky in Rocky drove to the beach and the door in I opened the door. In this study, however, moving participants will be viewed either as agents (if the motion is volitional) or as patients.
languages of the world. However, Langacker (1991a: 285) admits that these roles do not form an exclusive club, and that finer distinctions can be made. A number of additional roles are useful in an adequate description of the semantics of the middle voice in Greek. These roles, I suspect, will not be very controversial:

(12)  
- **beneficiary**: an animate entity receiving benefit as a result of the event.  
- **recipient**: an animate entity into whose possession something is transferred.  
- **cause**: an inanimate entity that causes a physical or mental change in another entity.  
- **source**: the location from which an entity moves, or, metaphorically, the stimulus of a mental process.  
- **goal**: the location towards which an entity moves.

It should be noted that many accounts of semantic roles do not distinguish the cause-role from the instrument role (cf. Givón 1984: 126, 2001a: 161-2; Palmer 1994: 5). A cause is similar to Dik’s semantic function *Force* (Dik 1997a: 118; cf. also Van Valin & LaPolla 1997: 85). The cause-role differs from an instrument in that it does not imply the presence of an initiating agent: the cause itself is conceptualized as an autonomous initiator. In Greek the cause is typically expressed by the dative case (*dative of cause*), but a cause can also have the status of subject in a transitive clause. Since causes are autonomous initiators (i.e. only differing from agents in volition), this is not surprising. For instance,

(13)  
- a. *ό σίδηρος τῷ πύρι* *cause* τήκεται ‘The iron is being melted by the fire’  
- b. *τῷ πῦρι* *cause* τήκει τὸν σίδηρον ‘The fire is melting the iron’

The cause-participant may appear in mental events, e.g.,

(14)  
*ήσθην ἀπειλαίω* *cause* (Ar. *Eq.* 696)  
I was delighted at your threats

A source is basically a spatial role, but it can also appear in an extended metaphorical sense. Examples of mental sources (or *stimuli*) are the genitival complements of verbs of perception, emotion, and cognition:

(15)  
- a. **Perception**: ἀκούσαντες τῆς σάλπιγγος*source* (Xen. *An.* 4.2.8)  
  Having heard the trumpet (...).  
- b. **Emotion**: ὁ ἀνήρ (...) κήδεται τῶν Ἡθβαίων*source* (Xen. *HG* 6.4.5)  
  The man (...) cares about the Thebans.  
- c. **Cognition**14: μάθε δέ μου*source* καὶ τάδε (Xen. *Cyr.* 1.6.44)  
  Learn from me this too.

In the above, the notion of prototypical transitive event, which involves a physical transmission of energy from an agent to a patient, was set out. It is, however, a widely-

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14 With verbs of cognition and perception, the genitival complement can also denote the entity *about which* one perceives or learns something, e.g. πατρὸς ἀκούσας (6 114) (‘having heard about father’). This type of genitive is often viewed as a partitive genitive.
occurring phenomenon that the transitive clause structure is extended to code other situation types. An example of this phenomenon is the way mental events (perception, cognition, and emotion) are treated. Examples of these are ‘see’, ‘know’, ‘understand’, ‘want’, and ‘love’ (see Langacker 1991a: 303-4, 310, 2000: 26). These events are coded in English as a transitive with a subject and a direct object, although they obviously do not involve a physical transmission of energy.

(16)  I {see/know/understand/want/love} it (Langacker 1991a: 303)

This extension, from the prototypical transitive event to the mental event, has a metaphorical character. Its motivation can be found in the abstract commonality that is inherent in both types of events. On the one hand, we have the transmission of energy from an active initiator (the agent) to a passive endpoint (the patient), and on the other hand, we have the concept of a metaphorical mental path leading from a more active, conscious participant (an experiencer) to a more passive object-participant. In other words, mental phenomena such as gazes and direct attention can be conceived of as paths, analogical to a physical path like that of an energy flow.15 Examples in Greek of mental events coded as transitive constructions are numerous: γινώσκω τι ‘I realize sth.’, οἶδα τι ‘I know sth.’, ὅρω τι ‘I see sth.’, τρέω τι ‘I fear sth.’.16

1.1.3 Prototypical Transitivity and the Middle Voice

In the previous section it was observed that in the unmarked case, the agent of the prototypical transitive is coded by the subject, and the patient by the direct object. Consider now the following clauses (from Langacker 1991a: 335):

(17)  a. He opened the door.
   b. The door opened very easily.
   c. The door suddenly opened.
   d. The door was opened.

Here we can observe that in the unmarked prototypical transitive clause (a), the agent is subject, the patient is object, and the verb is in the active voice. The other clauses depart from this prototype in one crucial respect: the patient is coded as the subject. This departure resides in the fact that the participant that is expected to be the subject (the agent) is bypassed in favour of a less qualified candidate: the patient. Clauses (b) and (c) are formally in the active voice, but they designate only the patient’s participation. In (b) the adverb very easily implies the efforts of an unspecified agent, which are facilitated by the inherent characteristics of the patient-subject (the door). In (c), the implicit reference to an agent is non-salient and may be absent altogether. Clauses like (b) and (c) are

15 Often, verbs of perception and cognition are based on a metaphor, e.g. English perceive from Latin -cipiō ‘grasp’; English grasp ‘understand’; Dutch be-grijpen from grijpen ‘grasp’. On the importance of metaphor to the verbs of perception and cognition, see Sweetser (1990).

16 The non-prototypicality of these transitive verbs is manifested by the fact that they do not have a passive (οἶδα, τρέω), or acquire a passive only after Homer’s time (γινώσκω, ὅρω).
sometimes called cases of middle *diathesis*, since they are formally in the active voice (at least in English), but *semantically* belong to the middle domain. In clause (d), though the agent is left unspecified (as is the case in most passive clauses), the efforts of an agent are definitely implied. In this respect the passive clause (d) differs from clauses (b) and (c). In the case of the English passive the deviation from the prototypical transitive arrangement is marked by the alternation of voice: instead of the unmarked active voice the verb has the marked passive voice.\(^{17}\) In the example of the familiar English passive, it can be observed that the notion of prototypical transitivity is highly relevant to voice alternations. Below, I will argue that the prototypical transitive event is also essential to the characterization of the middle voice in Ancient Greek (cf. Question (I) in (1.0)).

There have been many attempts to capture the essence of the semantics of the Greek middle voice. This is not an easy task if one considers the diversity of middle usages such as passive, intransitive\(^ {18}\), direct reflexive and indirect reflexive. It is clear that a core-meaning, if there is any, could only be of a highly abstract nature. It is, therefore, useful to consider some of the most important definitions of the middle voice.

The natural starting-point of this overview is, of course, the unrivalled grammar of Kühner and Gerth (K-G):

\[(18) \quad "{\text{Die Medialform bezeichnet eine Thätigkeitssäusserung, welche von dem Subjekte ausgeht und auf dasselbe wieder zurückgeht. Diese von dem Subjekte ausgehende und auf dasselbe wieder zurückgehende Thätigkeitssäusserung kann entweder bloss auf das Subjekt beschrankt sein, als: ουνευομαι, ich berate mich, λούωμαι, ich wasche mich, oder auf ein Objekt seiner Sphäre, (...)}} \" (K-G, I: 100)\]

K-G’s definition is of a remarkable originality since, as we shall see, it differs strongly from later definitions. However, it is interesting to note that K-G’s definition seems to convey an imagery that is related to modern views in which the *middle voice* is claimed to express that the subject is the *Startingpoint/Initiator* (cf. "ausgeht") as well as the *Endpoint* ("zurückgeht") of the action chain (cf. Croft, Shyldkrot & Kemmer 1987; for similar views: Klaiman 1988: 26-27, Klaiman 1991, Gerritsen 1990: 11, Croft 1994: 103). I will elaborate on this matter later. However, as is the case with these more recent views, K-G’s characterization only concerns the middle in the strict sense, i.e. it does not include the passive middle.\(^ {19}\)

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\(^{17}\) The main function of the passive construction is often taken to be to defocus the agent (see Shibatani 1985), or, as Givón puts it: "The agent is extremely non-topical (‘suppressed’, ‘demoted’), so that the patient is the surviving topical argument in the clause" (Givón 2001b: 94).

\(^{18}\) Here used in the semantic sense. The intransitive middle covers Rijksbaron’s pseudo-reflexive and pseudo-passive.

\(^{19}\) In modern linguistic literature there is much confusion about the terms *voice* and *diathesis*. Many authors seem to use the terms interchangeably. Others seem to use *diathesis* as pertaining to the formal properties of the verb (e.g. Klaiman 1988: 27; Duhoux 2000: 117), and *voice* as pertaining to the semantic properties of the verb. Again, other authors use the terms the other way around (e.g. Geniüšiene 1987). In
More familiar formulations of the meaning of the middle voice are:

19) "The Middle Voice denotes that the subject is in some especial manner involved or interested in the action of the verb." (Gildersleeve 1900: 64)

20) "Verba (...), die ihren Schauplatz in der Sphäre des Subjekts haben, bei denen das ganze Subjekt als beteiligt scheint." (Brugmann 1903: 104)

21) "Dans l'actif les verbes dénotent un procès qui s'accomplit à partir du sujet et hors de lui; dans le moyen, qui est la diathèse à définir par opposition, le verbe indique un procès dont le sujet est le siège; le sujet est intérieur au procès." (Benveniste 1966: 172)

22) "En indo-iranien et en grec les désinences moyennes indiquent que le sujet est intéressé d'une manière personnelle au procès." (Meillet 1937: 244)

23) "The implications of the middle (when it is in opposition with the active) are that the 'action' or 'state' affects the subject of the verb or his interests." (Lyons 1969: 373)

With regard to these definitions one can object either that they seem to focus on the indirect reflexive meaning of the middle (Gildersleeve and Meillet: the subject's interest), or, conversely, that they seem to be more suitable for the passive and intransitive uses of the middle (Brugmann and Benveniste: "the whole subject participates" and "the subject is internal to the process", respectively). Only Lyons' characterization pertains clearly to both the 'passive' meanings ("affects the subject") and the indirect reflexive meaning ("or his interests"). Lyons' recognition of these two extremities of the meaning of the middle, and the transparency of his formulation, make his definition appealing. Lyons uses the verb affect in a sense that is broad enough to be applicable to all middle meanings. It is this broad sense of affect and affectedness that we need in an adequate definition of middle meaning.20 If we are tempted to interpret affect and affectedness in a narrower sense, that is, as an equivalent of the ancient term πάθος, we inevitably run into trouble, since the

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20 The term originated from the narrower, emotional meaning 'affect', which appears especially in the German tradition. For instance, Schwyzer (II: 228) emphasizes that "das affektische Moment" is crucial to the semantics of middle verbs. The verba affectuum (verbs of affection, e.g. ἡδομαί, φέβομαι) are a special and productive group, of which the active transitive counterparts are either rare or non-existent. Therefore, Schwyzer concludes, the 'affective moment' must also be the distinctive feature in opposition to the active in the other verb classes. This conception of 'affectedness' is obviously too narrow. The difficulties are especially apparent in the case of an inanimate subject (e.g. ὁ σιδήρος γίνεται 'the iron is melting').
The notion πάθος pertains to passivity, as opposed to ἐνέργεια, which pertains to activity. The ancient grammarians, however, are clear in that they consider indirect reflexive middle verbs such as ἐποιητῶμην, ἐγραψῶμην as having an ἐνέργεια-meaning. Lyons’ definition was taken up by Barber (1975). She presents the semantic implications of the active and the middle in Greek in the following diagram (Barber 1975: 21):

Fig. 3 ACTIVE vs. MIDDLE (Barber 1975)

ACTIVE (no incoming arrows)                               MIDDLE (incoming arrows)

Plain Active         SS →                      Full Middle         SS ←

Reflexive            SS ←

Reciprocal           SS ←

Passive              SS ←

The letters ‘SS’ stand for Sentence Subject. The arrows indicate the direction of the action resulting in affectedness. The term ‘Full Middle’ corresponds roughly to the indirect reflexive middle. Barber adds that "(...) the active represents the one case in which the subject is not specified as being affected by the action; whereas the middle subsumes all cases in which the subject is affected by the action - (...)" (Barber 1975: 21). In sum, Barber sees the middle voice as a marker of subject-affectedness, taken in the broad sense. This comprises, on the one hand, affectedness in which the subject is very much like a patient (as in the passive, reflexive and reciprocal middle), and, on the other hand, affectedness in which the subject is similar to an indirect object (as in the indirect middle).

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21 The terms πάθος and παθητική are applied by the ancient grammarians not only to the passive in the strict sense (e.g. τύπτομαι ‘I am being beaten’), but also to direct reflexives (e.g. ἔλουσόμην ‘I washed myself’ (Apollonius, Macrobius and Choeroboscus; see Rijksbaron 1987: 434n8, Lallo 1997, I: 216), and even to active verbs like νοσῶ ‘be ill’ and ὄφθαλμω ‘suffer from ophthalmia’ (Macrobius; see Rijksbaron 1987: 438). Furthermore, Apollonius Dyscolus (150 Uhlig) has a subclass of παθητική called αὐτοπάθεια ‘auto-passivity’, which includes active verbs like θνήσκω, ὄφθαλμω, πάσχω (see Lallo 1997, I: 255). In sum, it appears that πάθος and παθητική are semantic terms, designating events in which the subject undergoes the action. This means that the term πάθος only partly relates to the meaning of the middle voice. Incidentally, according to Lallo (1997, II: 246n359), the element αὐτό- in αὐτοπάθεια expresses that the element of passivity is designated by the verbal lexeme itself (i.e. not by means of passive morphology).

22 This seems to be implicated by Apollonius III, 30 (see Lallo 1997, I: 216; II: 172). In the ancient grammarians, the term μέση/ μεσότης (middle) seems to refer to a formal category, consisting of (i) ‘passive’ forms with active meaning (e.g. ἐποιητῶμην), and (ii) active forms with passive meaning (e.g. γέγονα). The term could also apply to those forms that can both have an active meaning and a passive meaning, e.g., βιάζομαι ‘I assault s.o.’ and ‘I am being assaulted’, διέψθορα ‘I have destroyed’ and ‘I am destroyed’ (cf. Dionysius 13.8; Lallo 1989: 55, 166-7).
In this study, I will subscribe to the notion of *subject-affectedness* as the abstract meaning of the middle voice. The advantages are that it is not too vague, and that it subsumes the different middle uses in an adequate fashion.

I would now like to discuss the question as to how the notion of prototypical transitivity is relevant to the semantics of the middle voice. As I have expounded in section 1.1.1, the prototypical transitive clause can be defined in the following manner: an agent-subject volitionally initiates physical activity resulting in a transfer of energy to a patient-object that absorbs the energy and thereby undergoes an internal change of state. As a rule, the verb in a prototypical transitive clause has the active voice. Now the middle voice can be defined as a marked coding of a departure from the prototypical transitive. Contrary to the prototypical transitive, the subject, in some way or other, undergoes an effect of the event. This effect can be of a physical or a mental nature, and it can be direct or indirect (in that it involves an external object). In chapter 3, it will be argued that the notion of prototypical transitivity is also relevant to the semantics of the active-middle-passive trichotomy in the aorist stem.

### 1.1.4 Markedness and the Meaning of the Active Voice

In the previous section, I have been concerned with the abstract meaning of the middle voice. The meaning of the middle voice was characterized as a marked coding of a departure from the prototypical transitive event. Now the question arises as to the meaning of the active voice. Can we simply conclude that the active voice designates the *absence* of subject-affectedness in opposition to the middle voice? I will argue here that this conclusion cannot be drawn. Instead, the active voice must be taken as the unmarked member of a privative opposition. In other words, the active voice is neutral as to the semantic feature of subject-affectedness.23

A useful approach to markedness-phenomena can be found in Croft (1990). Croft argues that the many criteria that have been proposed (notably by Greenberg (1966)), can be reduced to three general ones (cf. 1990: 64ff.):

1 **Structural**: number of morphemes used to express marked and unmarked values.

2 **Behavioural**:
   (a) **Inflectional**: number of cross-cutting distinctions the marked and unmarked values contain.
   (b) **Distributional**: number of syntactic environments in which the marked and unmarked values occur;
   (c) **Cross-linguistic**: number of language types in which the marked and unmarked values occur.

3 **Frequency**:
   (a) **Textual**: number of occurrences of the marked and unmarked values in text;

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23 The markedness of the middle voice in Greek has been advocated earlier by García Gual (1970: 11-12, 29-32), and Ruipérez (1986). Gonda (1979: 39) reaches the same conclusion with respect to the middle voice in Rigvedic Sanskrit, which is highly similar to that of Ancient Greek: "(...) the active is not essentially the exact opposite of, or contrary to, the medium, but it is characterized by not expressing that which is conveyed by the medium, viz. some special reference to the subject. That means that it can be used when the author [of a Sanskrit text, *RJA*] does not deem it necessary to express the medial modification explicitly".
(b) **Cross-linguistic:** number of languages in which the marked and unmarked values are found.

I will argue now that these markedness criteria support the claim that the active voice is the unmarked category, whilst the middle voice is the marked category. Note that two criteria relate to cross-linguistic comparison (2c, 3b). These criteria I will leave out of consideration.\(^{24}\)

The criterion of *structural markedness* (1) involves counting the morphemes that signal the category in question. Croft (1990: 73):

\[(24) \textbf{Structure:} The marked value of a grammatical category will be expressed by at least as many morphemes as the unmarked value of that category.\]

Compare the regular thematic endings (plus thematic vowel, since they are not always clearly separable) of the present stem indicative in Attic Greek:

Table 2: Active and middle: present and imperfect indicative endings

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th></th>
<th>Imperfect</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Active</td>
<td>Middle</td>
<td>Active</td>
<td>Middle</td>
</tr>
<tr>
<td>1 sg</td>
<td>-ω</td>
<td>-ο-ματι</td>
<td>-ο-ν</td>
<td>-ο-μην</td>
</tr>
<tr>
<td>2</td>
<td>-εις</td>
<td>-ηι</td>
<td>-ε-ζ</td>
<td>-ου</td>
</tr>
<tr>
<td>3</td>
<td>-ει</td>
<td>-ε-ται</td>
<td>-ε-Θ</td>
<td>-ε-το</td>
</tr>
<tr>
<td>2 du</td>
<td>-ε-τον</td>
<td>-ε-σθον</td>
<td>-ε-τον</td>
<td>-ε-σθον</td>
</tr>
<tr>
<td>3</td>
<td>-ε-τον</td>
<td>-ε-σθον</td>
<td>-ε-την</td>
<td>-ε-σθην</td>
</tr>
<tr>
<td>1 pl</td>
<td>-ο-μεν</td>
<td>-ο-μεθα</td>
<td>-ο-μεν</td>
<td>-ο-μεθα</td>
</tr>
<tr>
<td>2</td>
<td>-ε-τε</td>
<td>-ε-σθε</td>
<td>-ε-τε</td>
<td>-ε-σθε</td>
</tr>
<tr>
<td>3</td>
<td>-ο-υσι</td>
<td>-ο-υται</td>
<td>-ο-ν</td>
<td>-ο-ντο</td>
</tr>
</tbody>
</table>

Greater morphological complexity of the middle compared to the active is found in the 1\(^{st}\) person sg. present (-ω vs. -ο-ματι), 3\(^{rd}\) person sg. (-ει vs. -ε-ται), and 3\(^{rd}\) person singular of the imperfect (-ε-Θ vs. -ε-το). In the 1\(^{st}\) and 3\(^{rd}\) sg. present, the active form contains a unanalyzable portmanteau-morpheme (-ω and -ει) that simultaneously expresses *aspect stem, tense, voice,* and *person.* Conversely, the middle forms contain two morphemes; one expresses *aspect stem* (the thematic vowel, -ο- or -ε-), the other expressing *tense, voice,* and *person.* The fact that a number of middle endings display a greater complexity is evidence that the middle voice is marked as compared to the active.\(^{25}\)

\(^{24}\) That the 'medio-passive voice' was typologically marked compared to the active voice has already been observed by Greenberg (1966: 45-6).

\(^{25}\) It is interesting to note that the middle endings in Proto-Indo-European (PIE) are a composite of active (secondary indicative) endings and stative endings. E.g., the 1 sg. middle ending *-m-\(h\)_2 consists of the active ending *-m* and the stative ending *-h*; the 3 sg. middle ending *-t-o* is composed of the active ending *-t* and the stative ending *-o* (see Beekes 1995: 240-2). Thus, in contrast to the active, the middle endings in PIE are clearly morphologically marked, through the addition of the stative morpheme. This stative
Another way of establishing structural markedness involves comparing the phonological heaviness of the respective morphemes. Croft (1990: 76) expresses reservations about the validity of this criterion. Although there is a tendency for morphemes expressing marked values to be physically longer, there is frequently a mismatch between physical length and markedness. The example given by Croft is from Spanish: the 1st person plural of the verb hablar ‘speak’ is hablamos ‘we speak’ vs. 2nd person habláis ‘you speak’. Here, the fact that the ending of the first-person plural contains more phonemes, conflicts with the typological evidence for person markedness. There is a cross-linguistic tendency for third persons (indicative) to be least marked, followed by first persons, and for second persons to be most marked (see Croft 1990: 93, citing Greenberg). For a clear example of this kind of ‘markedness mismatch’ in Greek, consider the second-person singular endings of the middle, -η (present) and -ο (imperfect). Although there is a tendency for 2nd persons to be marked as compared to the 1st and 3rd persons, the Greek 2nd person present and imperfect endings are shorter than the other persons.

Generally, these mismatches will be the result of a historical-phonological change. One example is the disappearance of a phoneme as a result of a sound-law. In the case of the second person middle in Greek, an intervocalic -σ- has disappeared (*-ε-σαί > -ε-αί > -η and *-ε-σο > -ε-ο > -ου). In the Spanish example, an intervocalic -l- was deleted (cf. its Latin predecessor *fabulatis).

It is clear that we must, indeed, exercise some caution when we attempt to determine markedness on the criterion of phonological heaviness. However, when establishing a markedness pattern in the active and middle voices in Greek, we can take a number of forms (namely two times eight personal forms, see the table above) into consideration, instead of just one pair (as in the examples above). In this fashion, we may be able to detect a tendency that is more robust.

Thus, when we contrast the active endings with the corresponding middle endings (-ω vs. -ο-ματ, etc.), we can observe that the middle endings contain more phonemes in 14 of the 16 forms of the paradigm. Only in two cases, namely the two second-person singular forms, is the pattern different. The primary endings (-εις vs. -η: both syllables morpheme was quite possibly a clitic personal pronoun in origin. In the course of time the original compositionality of the middle endings in PIE had become blurred. For the different theories about the origin of the PIE middle endings and the semantics of the middle voice in PIE, see Narten (1968), Neu (1968a, 1968b, 1976, 1985, 1989), Oettinger (1976, 1993), Jasenoff (1978), Strunk (1980), Kortlandt (1981), Georgiev (1985), Rix (1988), Stempel (1996), Kurzova (1999), and Pooth (2000).

Cf. also Comrie (1976: 111): "(...) in general, morphological criteria are the least telling, since the morphology often reflects systematic correspondences of an earlier period of a language."

Interestingly, the irregular 2nd person middle ending -η is later replaced by the transparent ending -ε-σαί. This restoration of the 2nd person ending first occurred in the athematic verbs (e.g. ἱστα-σαί in Homer), analogically after forms like κάθησα: κάθησαί (where the -σ- resulted from -σαί). In the Koiné, the thematic verbs are affected, e.g. -ποιε-σαί (see Schwyzer, I: 668-9). In this way, the expected markedness pattern is restored. The new middle ending -ε-σαί is morphologically more complex, and phonologically more heavy than the active ending -εις.
have three morae and the secondary middle endings (-ες vs. -ου: both have two morae) are equivalent as to phonological heaviness. Here again, the exceptional case is due to a sound-change: the form *-ε-σο was originally longer than the correspondent active form -ε-ς. In sum, it is safe to conclude that the middle voice is structurally (in particular, phonologically) marked compared to the active.

This brings us to Croft’s second criterion: behavioural markedness (1990: 77). This criterion can be divided into two types: a morphological type, which Croft calls inflectional (2a), and a syntactic type, called distributional (2b). The former pertains to the number of forms in an inflectional paradigm. The latter pertains to the number of syntactic contexts in which a grammatical element can occur.

Croft defines the inflectional criterion thus (1990: 79):

(25) **Behaviour (inflectional):** if the marked value has a certain number of distinct forms in an inflectional paradigm, then the unmarked value will have at least as many forms in the same paradigm.\(^\text{31}\)

With respect to inflectional behaviour, the active and the middle exhibit an important difference. The active voice has two sets of endings (conjugations), the thematic (1 sg. -ω, 2 sg. -ες, 3 sg. -ει, and 3 pl. -ουσι), and the athematic (1 sg. -μι, 2 sg. -ς, 3 sg. -σι, 3 pl. -συσι), whereas there is only one set of middle endings ((-ο)-μαι, etc.). The fact that the active voice has more distinct forms is an indication that it is the unmarked category as compared to the middle.

The second type of behavioural criterion discussed by Croft (1990: 81ff.) is the distributional type (2b). This relates to the number of environments in which the linguistic element in question occurs:

(26) **Behaviour (distributional):** if the marked value occurs in a certain number of distinct grammatical contexts (construction types), then the unmarked value will also occur in at least those contexts that the marked occurs in.

According to Croft (1990: 89-91), the phenomenon that is often called ‘neutralization’ or ‘neutral value-criterion’, is to be considered a subtype of the distributional criterion. **Contextual neutralization** implies that, although the meaning predicts that both forms

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\(^{20}\) My measure of morae is as follows: a syllable ending in a short vowel has one mora; a syllable which ends in a long vowel or a consonant has two morae; syllables ending in a long vowel and a consonant have three morae.

\(^{29}\) Like the primary indicative -ηι >> -ε-σαι, in later Greek the ending -ου is analogically replaced by the transparent -ε-σο.

\(^{30}\) For a similar conclusion regarding Modern Greek, see Haspelmath (1993: 99). Note further that the aorist endings (in Ancient Greek) confirm the markedness pattern. In all persons but the second (-σα-ς vs. -σω (< *-σα-σο)), the middle ending is longer. I did not take the aorist forms into account here because of the complication of the passive aorist.

\(^{31}\) Greenberg (1966: 29) gives a more specific criterion: An unmarked form will have at least as many allomorphs or paradigmatic irregularities as the marked form. In the same vein, Comrie (1988: 19-20) notes that the variety of conjugational classes is larger in the unmarked member of the opposition.
should be able to occur in a given context, in fact only one occurs, this being the unmarked form. In Ancient Greek, it can be observed that in a number of contextual environments, the active voice is used, even though, from a semantic point of view, the occurrence of the middle voice would be considered possible. Consider the following examples:

(i) Active verbs are used suppletively in passive constructions (K-G, I: 98-100; Smyth-Messing 1956: 397-8; Schwyzer-Debrunner, II: 226-7). The clearest example of this phenomenon is the active verb (άπο)θνήσκω ‘die’ which is used as a suppletive passive to (άπο-)κτείνω ‘kill’. So (άπο)θνήσκω ὑπό means ‘be killed by’. The active voice cannot possibly express absence of subject-affectedness, since that would be in clear contradiction to the passive semantics of the construction. Other examples of this phenomenon are φεύγω ‘flee’, used as a passive of διώκω ‘prosecute’ in juridical contexts. Thus, φεύγω ὑπό means ‘be prosecuted by’. In compounds, -πιτω ‘fall’ functions as a passive of -βάλλω ‘throw’, e.g. ἐπιπίπτω ὑπό ‘to be thrown out by’.

Another example of an active form with a passive meaning is the aorist form ἐάλων ‘was caught’, which has a middle present form ἀλίσκομαι ‘be taken, be caught’ (see also section 5.0).

(ii) The active voice may be used in contexts in which it is clear that the subject benefits from the action. Clear examples are those in which active and middle forms are used alternately. If it is inferable from the context that the action is performed in the interest of the subject, the use of the middle form is not obligatory (Gildersleeve 1900: 66, García Gual 1970: 12). For instance,

(27) [The Peloponnesians] (... ) ἀναγαγόμενοι ἀμα ἐρ ἐπλεον, ἐπὶ τεσσάρων ταξάμενοι τὰς ναὸς, παρὰ τὴν ἕως τὸν έσω ἐπὶ τοῦ κόλπου δεξίῳ κέρα ἤγουμένοι, ὡστε καὶ ἁμοῦν· ἐπὶ δ’ αὐτῷ εἴκοσιν ἔταξαν τὰς ἀριστὰ πλεούσας, (...) (Th. 2.90.1-2)

(...) so they put out to sea at dawn, and, after lining up their ships four deep, sailed along their own shore towards the inner part of the gulf, in the same order as they had lain at anchor, their right wing leading the way. Upon their right wing they had placed their twenty best sailing ships, (...).

The middle ταξάμενοι expresses that the Peloponnesians line up their ships for their own use. In the case of the active form ἔταξαν, self-profit is left implicit.

(28) a. [The Egyptians] (... ) ἀπὸ ὀλυρέων ποιεύνται σιτία, (...) (Hdt. 2.36.2)

(...) they make their bread from spelt (...).

b. [The Egyptians] ἀρτοφαγεόμενοι δὲ ἐκ τῶν ὀλυρέων ποιεύντες ἀρτους, (...) (Hdt. 2.77.4)

They eat bread which they make from spelt (...).

Here again, the active form (ποιεύντες) is used in a context in which it can be inferred from the verb ἀρτοφαγεόμενοι ‘they eat bread’ that the bread is made for the benefit of the subject (see also Cock 1981: 16).

32 The regular passive form κτείνομαι does not occur in Attic.

33 The translations accompanying the examples are taken from the Loeb-editions. In places, they have been adjusted.
Additionally, a comparable type of neutralization is found in the verbs of eating and drinking. This class of verbs are mostly active, e.g. ἐσθίω, βιβρώσκω, τρώγω, πίνω (see Schwyzzer-Debrunner, II: 225-6). Since these activities are inherently for the benefit of the subject, there is no need to code them with the middle voice. For a similar reason, an expression such as ἄνοιγω τὴν θύραν ‘I open the door’ is always active. The (indirect reflexive) middle form is never used, because it is only natural that one opens the door for oneself.

(iii) A third type of neutralization occurs in contexts with reflexive pronouns. In the following example, the active voice is used in combination with a dative reflexive pronoun σοίτῳ ‘for oneself’. The reflexive pronoun is used - instead of an indirect reflexive middle without pronoun - in cases in which the reflexivity is emphasized (i.e.: ‘for himself’). In these cases, also the middle voice would have been possible from a semantic point of view, (K-G, I: 110-1):

(29) [Philip weakened Macedonia] (...), ἔτι ἐπισφαλεστέραν ἥ ὑπῆρχε φύσει κατεσκεύασεν αὐτῷ (Dem. 2.15)

[Philip] has rendered [Macedonia] for his own benefit even more insecure than it was by nature.

That also the middle voice would have been possible is shown by the following example, where we find both a middle verb and a reflexive pronoun:

(30) τί τήν πόλιν, Αἰσχίνη, προσήκε ποιεῖν ἀρχήν καὶ τυραννίδα τῶν Ἑλλήνων ὄρωσαν ἑαυτῷ κατεσκευαζόμενον Φίλιππον; (Dem. 18.66)

What should the city have done, Aischines, when she perceived that Philip was establishing a tyranny over the Greeks for himself?

A similar phenomenon is found in direct reflexive contexts: sometimes the active form is used in combination with a reflexive pronoun, in cases in which a middle form would have been possible as well, e.g.:

(31) "Αδραστος δὲ (...), οὔτος δή ὁ φονεύς μὲν τοῦ ἑαυτοῦ ἀδελφοῦ γενόμενος, φονεύς δὲ τοῦ καθήραντος, (...) ἐπικατασφάζει τῷ τύμβῳ ἑαυτὸν (Hdt. 1.45.3)
But Adrastus (...), he who had become the slayer of his own brother and the slayer of his purifier, (...) slew himself over the grave.

The following example shows that the middle voice may also be employed:

(32) καὶ οἱ μὲν φασὶ βασιλέα κελεύσαι τινα ἐπισφαξαί αὐτὸν Κύρφω, οἱ δὲ ἑαυτὸν ἐπισφαξάσθαι σπασάμενον τὸν ἀκίνδυνον (Xen. An. 1.8.29)

And one report is that the King ordered someone to slay him upon the body of Cyrus, while others say that he drew his dagger and slew himself.

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34 Gonda (1979: 51) mentions that the same rule (i.e. when a reflexive pronoun is present the middle form is optional) applies for Rigvedic Sanskrit. This rule was already articulated by Pāṇini (1.3.77).

35 The direct reflexive middle -σφάττωμα without reflexive pronoun expresses ‘to kill oneself’ without emphasis or contrast (see also section 2.1.7).
In both cases mentioned above, the reflexive pronoun is used emphatically in a contrastive context (see also section 2.1.7).

(iv) Another indication that the active voice is the unmarked value relates to the passive aorist form (see also Ruigh 1991: 691). If we judge the passive aorist form solely by its endings (1 sg. [-θη]-v, 2 sg. -ς, 3 sg. -∅, etc.) it should be regarded as belonging to the active voice. However, in the system of voice oppositions, in the aorist stem the suffixes -σο- and -(-θη)- also play an essential role. Therefore, it is justified to take the passive aorist as a distinct voice. The active endings are used unproblematically in the passive aorist, since the 'passive' meaning (i.e. subject-affectedness) is expressed by the portmanteau morpheme -θη- which codes both aspect and voice. In my view, the case of the passive aorist forms clearly demonstrates the semantic neutrality of the active voice endings. Apparently, active endings can even be used in contexts of high subject-affectedness such as the passive aorist.36

As opposed to the passive aorist formations, the passive future forms do show middle endings (λυθήσομαι 'I will be made loose'; not: *λυθήσομαι). This redundant marking of subject-affectedness can be explained analogically with pairs like ἔβην - βήσμου, ἔστην - στήσμου, and perhaps under influence of the middle futures with passive meaning (e.g. αἰρήσομαι 'I will be taken'). The redundancy of the middle endings in the passive future in Attic and other dialects, is shown by the fact that the Doric dialects have active endings in the passive future (-θη-σέω).

To conclude the discussion of distributional behaviour, we have seen that the active voice readily occurs in contexts in which the element of subject-affectedness is clearly present. This, subsequently, entails that the active voice cannot be thought of as a marking of absence of subject-affectedness. Rather, the active voice must be considered as neutral to the element of subject-affectedness.

Croft's next criterion regards text-frequency (3a) (1990: 85):

(33) **Frequency (textual):** if a marked value occurs a certain number of times in frequency in a given text sample, then the unmarked value will occur at least as many times in a comparable text sample.

The table in Rijksbaron (1994: 139) shows that the middle voice is, indeed, less frequent. In Herodotus 39 % of the counted verb forms were middles; in Plato 33 %. The ratio active versus middle forms in a given text is approximately 2 : 1. The slight difference between Herodotus and Plato is largely due to a difference in the use of the passive. As is well known, the use of passives is dependent on genre-factors.37

36 In ch. 3, I will argue that the passive aorist form conveys a high degree of subject-affectedness. A contrary view is advocated by Bakker (1994). He sees the active endings of the passive aorist as designating the absence of affectedness which is due to the punctual aspect of the aorist stem: "Now when the passive event is construed, not in its inherent duration, but as an objective punctual event (e.g. punishment as the transitional point between the state of being guilty and the state of having been punished [in the case of κολασθήναι, RJA]), the affectedness disappears, and this is signaled by -ιθή- + active (=non-middle) morphology" (Bakker 1994: 40).

37 An interesting example of this phenomenon is the fact that passives are fairly rare in the oral narrative of Homer (e.g. the passive of δίδωμι appears only twice, against hundreds of active forms), whereas passive verbs are well-attested in the administrative Mycenaean texts (e.g. passives of δίδωμι: di-do-to, de-do-me-na).
To summarize, all markedness-criteria point in the same direction: the active voice is the unmarked member in the opposition with the marked middle voice. Since the active voice can occur in environments in which the subject is affected (contextual neutralization), it can be concluded that the active is unspecified as to the semantic feature subject-affectedness.

Conversely, the middle voice is semantically marked with respect to affectedness of the subject. As a consequence, event types that do not involve subject-affectedness cannot be expressed by a middle verb. The two major event types that do not involve subject-affectedness are the prototypical transitive and the stative event type. In the prototypical transitive event, the subject is an unaffected volitional agent, while the object is the sole participant undergoing the effect of the event. In stative events there is no affectedness, since affectedness can only be the result of a change that is taking place or has taken place. Examples of active stative verbs are: εἰμί 'be', ζω 'live', καθέναν 'sleep', μένω 'stay, remain', ὁξὸ 'smell'. That stative verbs tend to be active is also shown by the denominative verbs meaning 'be NOUN/ADJ', e.g. ἀσθενέω 'be weak' (ἀσθενής 'weak'), βασιλεύω 'be king' (βασιλεύς 'king'), δουλεύω 'be a slave' (δοῦλος 'slave'), ἐρυθραίνω 'be red' (ἐρυθρός 'red'), εὐνοχέω 'be prosperous' (εὐνοχής 'prosperous'), ἴσω 'be quiet' (ἴσιος 'quiet').

1.2 Polysemy and the Middle Voice

In section (1.0), Rijksbaron’s distinction of five different middle usage types was presented. In chapter 2, I will argue that it is useful to distinguish even more middle uses. On the other hand, as we have seen above, it has been the communis opinio that it is possible to assign an abstract meaning to the middle voice. How do these two facts relate? The question is whether we should pursue a polysemous approach, that is, attempt to distinguish the different specific meaning variants, and to analyze the way they are interrelated. Or, should a monosemous approach be pursued by trying to define a core-meaning that is shared by all middle uses? In the latter, the different middle uses are to be considered no more than variant interpretations that are completely determined by the context.

An objection to the monosemous approach in general is that definitions of the abstract meaning of lexical items or grammatical categories tend to be unspecific to such an extent that also the meaning of oppositional forms (in our case active forms) are covered by them.

However, although one can raise some objections to the monosemous approach, it is indeed possible to define an abstract meaning that is inherent to all variant middle uses. As we have seen in section 1.1.3, this abstract meaning can be characterized as subject-affectedness. If we dispense with this observation, we would miss an important generaliza-

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38 The asymmetry of the contrast between active and middle voice can be compared to the contrast between unmarked lion and marked lion-ess. The former term can also be employed in contexts in which the contrast is neutralized, as in We saw some bored lions in the zoo, where the group of lions may well contain some female specimens (see also Cruse 2000: 173).

39 Note, however, that active ἐρυθραίνω can also mean ‘make red’. Compare, by contrast, middle ἐρυθραίνομαι 'become red'.

40 With respect to the middle voice in Ancient Greek, this is the position taken by Andersen (1993).
tion. In the following section, it will be argued that the monosemous and the polysemous approach are not necessarily mutually exclusive. An attractive synthesis is offered by Langacker’s theory of complex network categories.

1.2.1 Langacker’s Complex Network Category

The complex category model, as it is developed by Langacker (1987), builds on Rosch’s psycholinguistic work on semantic categories (e.g. Rosch 1973, 1975, 1978). Rosch’s psycholinguistic experiments have shown that semantic categories tend to have a highly complex internal structure. Boundaries between categories are of a flexible and graded nature, and some members are ‘better’ members than others. Membership of a category is determined according to the degree of resemblance to a central member, or prototype. This way of determining category membership is thus radically different from the ‘Aristotelian’ way which requires a member of a category to possess some essential attribute.

Now what is a category prototype? The prototype of a category is generally defined as the best exemplar or the typical instance. Prototypical members have the largest number of attributes in common with other members of the category and the smallest number of attributes which also pertain to members of neighbouring categories. For example, as was shown by Rosch (1975), the most typical member of the category BIRD turned out to be ROBIN (at least, for North American students, who were her test-subjects). On the category boundary were birds like OSTRICHES (which do not fly) and PENGUINS (which do not fly and do not have clearly distinguishable feathers). Even BATS were sometimes included in the BIRD category, which shows the gradedness and flexibility of category boundaries.41

The view that categories are non-discrete can also be found in Wittgenstein’s Philosophische Untersuchungen (1999: 277-8). In a passage on the category SPIEL, he reaches the conclusion that there is no single property that is common to all games. Rather, the category is structured as a network of overlapping similarities (“ein kompliziertes Netz von Ähnlichkeiten”), which Wittgenstein called “Familienähnlichkeiten” (family resemblances). The category SPIEL is like a family. It is impossible to point to a feature that is shared by all family members. Instead, what one can say is that member A has a certain feature x in common with member B, member B shares with member C a feature y, and so forth. A notable difference between Wittgenstein’s category and the category as it is viewed in prototype theory is the idea that, in the latter theory, not all members are equal: some members are ‘more member’ than others.

Rosch’s idea of categorization as hinging on the perceived resemblance of category members to a prototypical member has inspired a number of cognitive linguists to develop models of categorization. Important examples are the radial network model (Lakoff 1987), the complex network model (Langacker 1987), and the family resemblance network (Taylor 1989). These models are concerned with all linguistic categories, including both lexical items (e.g. German Spiel) and morphosyntactic structures (e.g. the transitive construction).

41 A nice example of how peripheral members of one category can switch to another category is Dutch wal-vis ‘whale’. The name shows that this animal once was considered a member of the category FISH (Dutch vis), rather than a mammal. Clearly, of both categories, FISH and MAMMAL, the whale is a peripheral member.
Linguistic categories typically display a polysemous structure of interrelated and conventional values, centered around a prototype.\(^{42}\)

Now, Langacker's model differs from the two other cognitive models in one important respect. Besides the level of the concrete, polysemously interrelated meanings of a linguistic unit, he posits a higher-level abstract schema. The notions prototype and (abstract) schema are contrasted by Langacker in the following way:

(34) "A prototype is a typical instance of a category, and other elements are assimilated to the category on the basis of their perceived resemblance to the prototype; there are degrees of membership based on the degree of similarity. A schema, by contrast, is an abstract characterization that is fully compatible with all the members of the category it defines (so membership is not a matter of degree); it is an integrated structure that embodies the commonalities of its members" (Langacker 1987: 371).

The notion of abstract schema is roughly comparable with the traditional notion of abstract meaning or core meaning. Langacker's complex network model can therefore be considered a synthesis of a purely polysemous approach (invoking one form with different, yet related meanings) with a monosemous approach (invoking one form with one meaning).

The essential building blocks of Langacker's complex category model are prototype, extension and abstract schema. In order to grasp the idea of a complex category network, it may be useful to have a look at an example of a lexical category given by Langacker himself (Langacker 1987: 373-385).\(^{43}\) Consider a child in the process of learning the various senses (conventional usages) of the word tree. In his early experience, the word is first applied to familiar specimens like oaks, elms, and maples. These concrete applications of the word tree may be called usage events (Langacker 1987: 66). A usage event can be characterized as an actual instance of language use, involving a full, context-dependent (and therefore richly detailed) understanding, that is paired with an actual vocalization. On the basis of a series of usage events, the child will extract a conception that embodies the commonalities of these trees, while properties that vary from one instance to the next will be ignored. This abstraction of the concept TREE,\(^{44}\) though it excludes subtler and more contingent properties, will nevertheless be fairly concrete and specific as the concept probably involves intrinsic, characteristic, and cognitively salient properties, such as shape, size, color, brachiation, and leaves. Since this concept of TREE,

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\(^{42}\) Important works on linguistic prototypes are Givón (1984, 2001a) who discusses the cognitive and biological basis of linguistic prototypes; Lakoff (1987), who discusses the development of the notion prototype in psychology and linguistics, and presents some convincing prototype-analyses; Langacker (1987, 1991a, 1991b); Taylor (1989), on prototype categories; Croft (1991), on syntactic categories; Geeraerts (1993), on lexical semantics; and Goldberg (1995), on constructions. Prototype-based studies on the middle voice are Croft, Shylkrot & Kemmer (1987), Kemmer (1993), Maldonado (1999), and Manney (2000).

\(^{43}\) I refer to the passage cited for a considerably more elaborate treatment of the example. For a comparable discussion of the expansion of a lexical category, see Langacker (2000).

\(^{44}\) Words in capitals here represent conceptual content (roughly the signifié), whereas small italics represent the phonological content (signifiant).
is an abstraction from varied concrete usages, it constitutes a low-level abstract schema. With repeated usage, this conception will become more deeply entrenched. This initial conception can be recognized as the category prototype. Subsequently, suppose the child is confronted with a pine. He will easily learn to call it a tree, either because somebody calls the pine a tree, or because it is the most applicable term at his disposal. Thus, the original prototypical use of the word tree is extended to a new use, namely PINE. This semantic extension is based on the judgement of similarity of the new concept PINE with the highly salient and highly entrenched concept TREE₁ which was already acquired by the child. The observation of similarities between the older concept TREE₁ (roughly a broad-leaved tree) and the new concept PINE takes the form of an abstract concept TREE₂ that embodies the commonality of TREE₁ and PINE. This concept TREE₂ abstracts away from the conflicting properties of the two lower level concepts, e.g., it will have to be neutral as to the difference between leaves and needles. This higher level concept TREE₂ is the abstract schema of which the two more concrete uses of the word tree are elaborations. The process described here results in a simple schematic network depicted in figure 4:

Fig. 4 Extension and Schematicization: tree

Note that the concept TREE₁ is depicted by a square. This is a notational convention used by Langacker to indicate that the concept at issue is entrenched. The circles indicate that these concepts are not (yet) entrenched. The solid arrows indicate that the low-level uses are elaborations/specifications of the abstract schema. The dashed arrow indicates that PINE is an extension of the prototype TREE₁.

The process described above can now be repeated. For instance, the next stage could involve the acquisition of the concept of PALM as a variant use of the word tree, which, in turn, results in an even more abstract schematic concept TREE₃. This abstract

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45 Every single use of a linguistic structure (e.g. a lexical item or a morphosyntactic structure) has a positive effect on its degree of entrenchment. Conversely, disuse has a negative impact. With repeated use, a novel structure will become progressively entrenched, and it will become a conventional unit. A unit is a cognitive structure mastered by the speaker so that it can be employed in a largely automatic fashion, without requiring attention to its individual parts or their arrangement. Since entrenchment is dependent on frequency of use, it is a matter of degree (cf. Langacker 1987: 59-60).
schema should be neutral with respect to, for example, the degree of brachiation, and the size and nature of the foliage. This expanded network category is depicted in figure 5:

Fig. 5 Expansion of the network *tree*

![Complex Category Network](image)

Earlier in this section, the major ingredients of the complex category model were presented, namely *prototype* and *extension*, *abstract schema* and *elaboration*. The complex category can be thought of as a network. The nodes of the network consist of particular linguistic structures. These might be allophones of a phoneme, variant senses of a lexical item (as in the *tree*-example), or variant forms of an elaborate grammatical construction. In addition, the nodes may vary as to the degree of specificity of their content. The nodes are linked to each other in pairwise fashion, thereby indicating their relatedness. A full-blown network category may look like the following diagram (from Langacker 2000: 14):

Fig. 6: *Complex Category Network*
The prototype of the category represented here is node A: almost all the other nodes are either extensions of A (indicated by the dashed arrows), or elaborations (the solid arrows). Node A is also the most entrenched node, which is indicated by the thickness of the box. Node C could be considered a secondary prototype. Furthermore, three levels of schematicity are represented in the diagram. On the lowest level are the structures that are specified in most detail: C, A, A, A. On the mid-level the structures are located that are more schematic than the lower-level structures: A and C are abstract schemas of which A, A, A and C are elaborations (note the solid arrows). The highest level consists of structures A and C. These are 'superschemas' of the category. In turn, the mid-level subschemas are elaborations of these superschemas (hence the solid arrows). Another dimension that is represented in the diagram is the aspect of "distance". The nodes are depicted at greater or smaller distances from one another, depending on the difference in degree of elaboration or, in the case of extension, on the number of salient features two nodes have in common.

It is important to keep in mind that the image of a network is a metaphor. It can capture (and visualize) a number of essential properties of the structure of a complex category, as was explained above, but, just like any metaphor, it has its limitations. For example, the discreteness of the boxes in the network may create the false impression that the boundaries between the nodes in the network are clear-cut. In fact, the transition between the nodes (e.g. semantic variants of a lexical item) must be viewed as gradient. In a complex category, there are typically many cases which, having features in common with two nodes (or even more than two), fall between the two of them. Nevertheless, the image of a network can be considered adequate since most instantiations do tend to center around a typical case. If this were not so, and in-between cases were more than a relatively marginal phenomenon in our category, we would have to reconsider our analysis, and to see whether we should postulate an additional node in the network.

To improve our understanding of the nature of Langacker's model, it is important to note that it is characterized as a usage-based model. Langacker describes this model as follows (1987: 494):

(35) "Substantial import is given to the actual use of the linguistic system and a speaker's knowledge of this use; the grammar is held responsible for a speaker's knowledge of the full range of linguistic conventions, regardless of whether these conventions can be subsumed under more general statements. [It is a] non-reductive approach to linguistic structure that employs fully articulated schematic networks and emphasizes the importance of low-level schemas."

In Langacker (1991a, chapter 10), the model is described as a maximalist, non-reductive, and bottom-up approach, which is consistent with the nature of cognitive linguistics.

Now what do these labels mean? The usage-based model is maximalist and non-reductive in the sense that it recognizes that the linguistic system is a massive, highly redundant inventory of conventional units. In order to become a fluent speaker, a human being has to do a vast amount of actual learning. As Langacker (2000: 2) puts it: "If one aims for psychological reality, it cannot be maintained on purely methodological grounds that the most parsimonious grammar is the best one." Related to this issue is the non-reductive aspect of the model. This concerns the idea that a grammar includes both general rules or schemas as well as expressions that instantiate these rules. For instance, a speaker typically will have learned a general rule for the formation of plural nouns (N + -
s) as well as certain specific instantiating expressions such as *dogs, houses, cars*. In some approaches to grammar these instantiating expressions are excluded from the grammar on grounds of economy, since these expressions are regularly derivable by rule: to list them individually would be to miss a generalization. This reasoning can be called the *rule/list fallacy* which is based on the assumption that rules and lists are mutually exclusive (Langacker 1987: 29, 2000: 3). Therefore, abstract schemas *and* specific expressions are part of the grammar, provided that they have become conventional units, through entrenchment by frequent, repeated occurrence. As was shown before, abstract schemas are representations of commonalities observed across a number of specific expressions. For instance, the abstract schematic pattern of noun-pluralization is learned through the observation of specific forms like *dogs, houses*, etc. These specific expressions must have become entrenched units *before* the abstract pattern is extracted. It is implausible that these specific plural forms will have suddenly lost their status as entrenched, conventional units the moment the general rule is acquired, and that from that moment onward the specific expressions must be computed from scratch on the basis of the rule (cf. Langacker 1991a: 263). It is more plausible that abstract schemas/general patterns *and* specific instantiating expressions coexist as stored units.⁴⁶

I will now move on to the last characteristic of the usage-based approach: the bottom-up orientation. This basically amounts to a difference in emphasis that is given to the different levels of a complex category. Low-level schemas, which are extracted when a language user comes into contact with a fully contextualized instance of a category, are considered of more importance in language processing than higher-level schemas that are extracted from the low-level schemas. "If high-level schemas are extracted, they may be only of secondary significance, serving more of an organizing function than an active computational one" (Langacker 1991b: 265). For instance, when somebody hears the word *dogs*, he will immediately access from memory the highly entrenched low-level unit *dogs* as a pre-packaged whole, instead of computing its structure on the basis of the higher-level schema of noun-pluralization (N + -s). Moreover, many complex categories, both lexical and grammatical, lack a single abstract superschema that subsumes all the lower-level values shown by a particular form. In that case, we are dealing with a classic instance of *family resemblances* (as for instance Wittgenstein's SPIEL).

The view that lower-level schemas are more important to language structure than high-level schemas is in accordance with the observation that it is generally not possible to predict the actually occurring instantiations of the high-level schema. This entails that the language user has to know which of the potential low-level instantiations of the high-level schema actually do exist, and which don't. For instance, the passive form *σκέινομαι* ὑπὸ ‘be killed by’ could, potentially, be sanctioned by the abstract schematic meaning of the middle voice, namely *subject-affectedness*. However, a speaker of Attic Greek had to learn that this instantiation is ungrammatical, and that the construction θνησκω ὑπὸ was used instead.

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⁴⁶ The consequence of this view of grammar is that there is no principled division between lexicon and grammar. The grammar of a language is viewed as a *structured inventory of conventional linguistic units*. Linguistic units may vary in degree of compositionality and specificity. The more specific and the less compositional a fixed unit is, the more it can be viewed as a lexical item in the traditional sense. The point is that this is a matter of degree, just as the determining parameters compositionality and specificity.
1.2.2 The Middle Voice as a Complex Category

One of the main objectives of the present study is to show that the grammatical category of middle voice can be insightfully analyzed as a complex network category. In section 1.0, I described the five different middle usage types as identified by Rijksbaron (1994²). These are the passive use, the direct reflexive use, the indirect reflexive use, the pseudo-reflexive/pseudo-passive use, and the middle-only use. These usage types can be identified with the concrete, low-level senses of the complex category. These variant uses of the middle voice are semantically related to one another in a polysemous fashion. In the complex category models, these relationships are called extensions. This means that, although they share certain semantic features, there are salient features in which they differ.

As was noted above, the abstract meaning of the Greek middle voice can be defined as affectedness of the subject. This abstract meaning can be identified with the abstract schema in Langacker's model. In accordance with the usage-based model of grammar, it is conceivable that this abstract schema is less entrenched, and only of secondary importance in actual language use. In speaking and hearing, the language user is more likely to activate the more concrete middle usage types, than the rather abstract superschema of subject-affectedness. For example, it is plausible that, when a Greek heard the word ἀπεταμένος in a context without a direct object or external agent, the low-level "node" of the pseudo-reflexive⁴⁷, that specified that the subject undergoes a self-initiated change of state, was activated first and foremost. The abstract schema, with the single implication that the subject is affected, may have been activated less strongly, or not at all.⁴⁸ Obviously, this assumption cannot be tested in a dead language like Ancient Greek, and it is, therefore, not crucial to the purposes of my argument.

In chapter 2, I will give an overview of the different middle usage types which I distinguish, and I will describe the structure of the semantic network of the middle voice. In several respects, my classification will be finer-grained than Rijksbaron's presented above. This refinement is primarily supported by typological evidence (esp. Kemmer, Croft, Shylakrot 1987; Kemmer 1993), and by morphological evidence from the aorist stem. After this classification of middle uses, the semantic relationships among them will be discussed.⁴⁹ This discussion will result in a "semantic map" of the Greek middle voice. This semantic map represents the precise structure, as I see it, of the semantic network of middle uses and their interconnections.

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⁴⁷ In chapter 2, I will rename this middle usage type "body motion middle".

⁴⁸ It can also be assumed that these concrete middle usages are acquired first. The abstract schema is then extracted from the variant usage types on the basis of the semantic commonalities observed (unconsciously) by the language user (see 1.2.1).

⁴⁹ These semantic relationships can be identified with the extensions of Langacker's model: one polysemous meaning is an extension of a more prototypical one if - although they share one or more semantic commonalities - there is at least one salient semantic property in which they differ. I shall use the more neutral term relationship, because it is often unclear which of the connected uses is the more prototypical, and which is the extension. From a diachronical point of view, one can only guess as to the exact way in which the middle voice emerged since there already must have been a full-blown middle voice in Proto-Indo-European. Synchronically, frequency of use can be an argument for prototypicality. In section 2.3.2, I will try to establish the category prototype of the middle voice in Greek.
The semantic map approach and its implications for distributional patterns and diachrony I owe to Anderson (1982) [on the perfect]; Haspelmath (1987) [on reflexives]; Croft, Shyldkrot & Kemmer (1987) [on the middle voice]; and Kemmer (1993) [on the middle voice]50. These are all typological studies which attempt to establish a universally valid semantic map51 for each of the grammatical categories concerned. The semantic map of the middle voice in Ancient Greek, which will be based on a semantic analysis of the different middle usage types, will serve as a basis for two claims that will form the point of departure in chapter 3. Both claims relate to morphology, the first from a synchronical point of view, the second from a diachronical point of view:

(I) A form will always cover a connected region of variant middle uses in the semantic network.52

(II) A form will only spread from one variant use to another when these uses are directly semantically related.53

These claims are primarily relevant to the analysis of the complex morphology of the aorist stem, which will be the objective of chapter 3. The first claim is based on the general functionalist assumption that different meanings that are expressed by the same form are related, until proven otherwise. With respect to the morphology of the aorist stem, it predicts that every aorist form - i.e. sigmatic middle, thematic middle, root middle, and passive aorist - will map onto a contiguous portion of the semantic network. The second claim predicts that historical expansion of an aorist form through the network will follow the pathways of the semantic links. In other words, the extending form will not "jump over" from middle use A to middle use C, without affecting the intermediate use B. These two claims can be seen as two sides of the same coin, since the synchronical contiguity of a form in the semantic network results from the diachronical tendency of forms to spread only to semantically adjacent meanings.

50 Kemmer’s study will be discussed in more detail in section 1.2.3.

51 Croft (2001) distinguishes the notion conceptual space from that of semantic map. The former is defined by Croft as follows: "Conceptual space is a structured representation of functional structures and their relationship to each other" (Croft 2001: 93). Conceptual spaces are hypothesized to be language-universal. A semantic map is a map of the distributional pattern of a language-specific category on a conceptual space. In his thought-provoking book, Croft shows the importance of the notion of conceptual space for the understanding of language-specific grammatical categories. He insightfully analyses the different conceptual spaces that relate to parts of speech, clausal syntactic roles, the voice continuum, and the subordination-coordination continuum. Since the present study is not concerned with a cross-linguistic comparison of voice systems, but is restricted to the Ancient Greek middle voice, employing the term conceptual space would not be appropriate. Instead, I will use the term semantic map or semantic network in reference to the particular polysemic structure of the Ancient Greek middle voice.

52 This principle is related to Croft’s Semantic Map Connectivity Hypothesis, which runs thus: "any relevant language-specific and construction-specific category should map onto a CONNECTED REGION in conceptual space" (Croft 2001: 96).

53 This is essentially Croft's dynamicized version of the Semantic Map Connectivity Hypothesis: diachronic changes in the distribution of a construction should follow connected paths in conceptual space (Croft 2001: 105).
Furthermore, these claims can serve as a powerful empirical tool to test the accuracy of our network structure as it results from a semantic analysis only. For example, if an aorist form does not cover a contiguous region in the network, or if an aorist form does not extend gradually through the semantic links in the network, then the map of our semantic network should be seriously reconsidered, and modified in such a way that violations of the two claims are avoided.

1.2.3 Kemmer, *The Middle Voice* (1993)

In the previous section, a network conception of the middle voice was set forth. The major advocate of this approach to the middle voice has been Suzanne Kemmer. Especially her typological study *The Middle Voice* (1993) - a revision of her doctoral thesis - has been an important contribution to our understanding of middle voice phenomena, and it has also been fundamental to the present study. Therefore, it is more than justified to devote a section of my study to a discussion of her book. This section will focus on those analyses and conclusions in the book that are of importance to the argument of the present study.

Kemmer’s *The Middle Voice* is a large-scale typological comparison of middle voice systems in 30 languages. After an introductory chapter, Kemmer starts off (chapter 2) by giving an inventory of the middle situation types that are frequently marked by middle morphology across the world’s languages. She enumerates 13 types of middle situations (Kemmer 1993: 16-20):

1. **Grooming or body care**: Djola (Niger-Congo) -pɔs-ɔ ‘wash’; Latin *lavo*-r ‘wash’; Bahasa Indonesia *ber-dandan* ‘get dressed’; Old Norse *klaða*-sk ‘get dressed’; Hungarian *borotvál-koz* ‘shave’.
2. **Nontranslational motion**: Kanuri (Nilo-Saharan) *tàn-t-in* ‘stretch one’s body’; Old Norse *snúa*-sk ‘turn’; Latin *reverto*-r ‘return’; Classical Greek *trépe-sthai* ‘turn’; German *sich verbeugen* ‘bow’.
3. **Change in body posture**: Djola *lak-ɔ* ‘sit down’; Bahasa Indonesia *ber-lutut* ‘kneel down’; German *sich hinlegen* ‘lie down’; Guugu Yimidhirr (Australian, Pama-Nyungan) *daga-adhi* ‘sit down’; Hungarian *emel-ked*- ‘rise, get up’.
4. **Indirect middle**: Turkish *ed-in* ‘acquire’; Old Norse *eigna*-sk ‘acquire, lay claim to’; Classical Greek *kta-sthai* ‘acquire for oneself’; Latin *apīsco*-r ‘obtain’; Changana (Niger-Congo, SE Bantu) *ku ti-tekela* ‘take for oneself’.
5. **Naturally reciprocal events**: Old Norse *hitta*-sk ‘meet’; Hungarian *ölel-kez*- ‘embrace’; Latin *amplecto*-r ‘embrace’; Bahasa Indonesia *ber-gumul* ‘wrestle’; Guugu Yimidhirr *yrarga-adhi* ‘converse, agree’.
6. **Translational motion**: Pangwa (Niger-Congo, CE Bantu) *i-nu-xa* ‘climb up’; Guugu Yimidhirr *madha-adhi* ‘climb up’; Old Norse *ganga*-sk ‘go, leave’; Bahasa Indonesia *ber-jalan* ‘walk, stroll’; Classical Greek *péte-sthai* ‘fly’; Latin *vēho*-r ‘travel’.
7. **Emotion middle**: Guugu Yimidhirr *dumba-adhi* ‘get a shock or fright’; German *sich fürchten* ‘be/become frightened’; Mohave (Hokan, Yuman) *mat ʔa:v* ‘be angry’; Latin *irdisco*-r ‘become angry’; Hungarian *bán-kod*- ‘grieve, mourn’.

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54 The middle markers are in bold-face.
Emotive speech actions: Latin quero-r ‘complain’, German sich beschweren ‘complain’; Classical Greek olophūre-sthai ‘lament’, Turkish dövün ‘lament’; Sanskrit kṛpā-te ‘lament’.

Other speech actions: Mohave mat kuna:v ‘confess’; Pangwa -i-lumba ‘admit one’s guilt’; Latin fateo-r ‘confess’; Kanuri àwūlọ-t-in ‘be boastful, be a braggart’; Hungarian dice-ked ‘boast’.

Cognition middle: Bahasa Indonesia ber-pikir ‘be cogitating’; Old Norse þýkkja-sk ‘think’; Pangwa -i-sala ‘think over, consider’; Latin medito-r ‘ponder, meditate’; Mohave mat ahay ‘believe’.

Spontaneous events: Changana ku-ti-milela ‘germinate, sprout’; Old Norse gróa-sk ‘grow’; Bahasa Indonesia ber-henti ‘come to a stop’; Mohave mat iço: ‘become, change into’; Turkish dinl-en ‘recover’.

Logophoric middle: the middle marker appears on verbs of saying, belief, and perception in construction with a complement clause, e.g. Icelandic þeir sáus-st hlaupa ‘They saw themselves run’.

Passive, Impersonal, Facilitative middles: Kanuri t-úrúk-in ‘I am seen’ (passive); German Der Artikel liest sich leicht; French Le livre se vend bien (facilitative).

Apart from (12), the logophoric middle, and the facilitative middle, each of the enumerated middle uses seems to be instantiated in Ancient Greek. In (1) grooming or body care, we can recognize the direct reflexive middle use. In (2) non-translational motion, (3) change in body posture, and (6) translational motion, Rijksbaron’s (1994) pseudo-reflexive use, which almost exclusively consists of verbs of motion, can be recognized. The indirect middle (4) can be compared to the indirect reflexive middle in Greek. The uses (5) naturally reciprocal events, (8) emotive speech actions, (9) other speech actions, and (10) cognition middle are typical media tantum classes in Greek, e.g. μάχομαι ‘fight’ (5), ὀλοφύρωμαι ‘lament’ (8), μυθέομαι ‘speak’ (9), λογίζομαι ‘calculate; consider’ (10). The emotion middle (7) and the spontaneous event middle (11) correspond to Rijksbaron’s (1994) pseudo-passive use, e.g. φοβέομαι ‘fear’ (7) and τίκομαι ‘melt (intr.)’ (11).

Generalizing from these seemingly very diverse situation types expressed by the middle voice, Kemmer argues that the one crucial semantic property of the middle voice is the relative distinguishability of participants. Kemmer (1994: 211):

"Relative elaboration of events can be thought of as the degree to which different schematic aspects of a situation are separated out and viewed as distinct by the speaker. The speaker in effect can choose to "turn up" or "turn down" the resolution with which a particular event is viewed in order to highlight its internal structure to a greater or lesser extent."

This property, according to Kemmer, subsumes the notion of ‘subject-affectedness’. Thus, the middle voice can be located on a gradient scale between two extremes, i.e. between two-participant events (high distinguishability) and one-participant events (low distinguishability) (Kemmer 1993: 73):
The two-participant event is located at the one extreme of the scale. According to Kemmer, in a two-participant event the participants are maximally distinguishable in that the two participants, the Initiator and the Endpoint, are completely separate entities. In a reflexive event the distinguishability is lower. The reflexive marker (the pronoun ἐστήκετο in Ancient Greek) signals the co-referentiality of the participants in events in which the two participants are normally distinct entities. In the reflexive, the separation of the two participants is thus to some extent maintained. In the middle type the dual roles, Initiator and Endpoint, are conflated in a single participant. Thus, the distinguishability of participants is minimal, yet higher than in prototypical one-participant events. In the case of the middle, a certain degree of internal complexity is extant by virtue of the initiating and affected aspect that is evoked.

I already mentioned, in passing, the notions Initiator and Endpoint. According to Kemmer, the notions Initiator and Endpoint are important for an understanding of middle semantics. To get a grasp of these notions, it is best to consider the transitive clause, which is, according to Kemmer (1994: 51), the basic conceptual model for these notions. We have seen that the prototypical transitive clause involves a physical transmission of energy, initiated by a volitional agent and resulting in a change of state of the patient. However, it is a trivial observation that transitive clauses generally also denote other types of interactions. For instance, in section 1.1.1 I mentioned mental event types that are very often coded as transitive events, even though they involve neither a volitional agent nor a state-changing patient. The coding of these non-prototypical transitive event-types in a morphologically transitive clause is conditioned by the degree to which such events can be construed as an asymmetrical interaction between two participants. In this asymmetrical interaction, the first participant is construed as initiating the event (hence Initiator); the second participant is construed as the endpoint of the action chain (Endpoint). The notions of Initiator and Endpoint are general semantic roles, subsuming various other, more specific, semantic roles. The Initiator role subsumes those roles that involve a conceptualization of a "starting point" of an event, such as agent, experiencer, and mental source. Endpoint, on the other hand, encompasses the "down-stream" roles, such as patient, recipient and beneficiary. As they subsume the more concrete semantic roles, Initiator and Endpoint are called "macro-roles" by Kemmer. The semantics of the
middle voice can now be described elegantly in terms of these macro-roles: the middle voice expresses that the subject is conceptualized as both the Initiator and the Endpoint.

With regard to Ancient Greek, however, this characterization of the middle voice is not entirely adequate. As was set out above, the Greek middle voice can be characterized by the notion of subject-affectedness. The idea that the subject is affected by the event is roughly equivalent to the idea that the subject is the Endpoint in the event. The notable difference between Greek and many other middle voice systems is that the middle voice in Greek also covers the canonical passive meaning. This means that, in Greek, the subject of a middle verb cannot be conceived of as an Initiator in all cases. This is a crucial difference between the Greek middle voice and many other middle voice systems (esp. those of modern European languages) which originate from reflexive markers.\textsuperscript{57} In these languages, the middle category prototype relates to grooming actions (Kemmer 1993: 55), or possibly to the related body action types such as change in body posture, non-translational and translational motion. The spontaneous event type and the passive\textsuperscript{58} are to be considered peripheral usage types. In Ancient Greek, however, the category's gravitational point lies elsewhere. In section 2.3.2, it will be argued that the intransitive middle types\textsuperscript{59} - especially the mental process type - constitute the centre of the middle voice in Greek. The grooming type in Greek is to be considered of marginal importance as both type and token frequency are very low.

In chapters 3 and 4, Kemmer gives a thorough description of the different reflexive and middle types found in the languages of the world. As we have seen above, many of these can also be found in Ancient Greek. In chapter 5, the historical emergence of the middle voice from a reflexive origin in a number of language-families (Romance, Germanic and Nilo-Saharan) is discussed. Kemmer describes the spread of the reflexive marker se in Latin through the middle semantic domain in French and Surselvan (a Rhaeto-Romance language), accompanied by the disappearance of the older middle marker, the inflection in -or, -ris, -tur, etc. Kemmer describes the expansion of the reflexive marker se as a process of grammaticalization: the meaning shifts from an originally emphatic direct reflexive sense in Latin to a more abstract middle meaning in the Romance languages. Eventually, the marker could also be used as a passive. This semantic generalization process is accompanied by typical symptoms of grammaticalization: cliticization (pan-Romance), erosion (loss of phonological substance), affixation (in Surselvan), and the spread of se from the 3rd person to all other persons (in Surselvan).

The description of this diachronic process, involving a reflexive marker developing into a middle marker, as it occurred in Romance and Germanic languages, is not directly relevant to the Greek middle voice and its origins. If the Indo-European middle voice did

\textsuperscript{57} The same observation holds for Latin, and perhaps more ancient Indo-European languages. In Latin, most of the verbs in -or, -ris, -tur, etc. have a passive meaning.

\textsuperscript{58} Note that in many modern European languages the prototypical passive is expressed by an auxiliary plus participle, e.g. French La porte estouverte par Roger.

\textsuperscript{59} Although, strictly speaking, the direct reflexive middle is also intransitive, I will use intransitive middle as a cover-term for the body motion middle (roughly Rijksbaron's pseudo-reflexive), the mental process middle and the spontaneous process middle (Rijksbaron's pseudo-passive). The intransitive middle is called decausative by some authors (e.g. Geniušiene 1987, Gerritsen 1990), since they systematically correspond to active causative verbs.
develop from a reflexive marker, it must have been in an earlier stage of Proto-Indo-European (PIE), since we can already reconstruct a reflexive marker for PIE, *s(u)e, alongside a full-blown inflectional middle voice category (1s *-mh₁, 2s *-sth₂, 3s *-to, etc.). In other words, in PIE we find a situation in which the (emphatic) reflexive is expressed by a marker (*s(u)e) that is not genetically related to the middle inflection (1s *-mh₂, etc.).

However, for students of the Greek middle voice the primary importance of Kemmer's description of the spread of the reflexive marker from one use to another lies elsewhere. The first point of importance is of a methodological nature. Kemmer's diachronical analyses are based on the assumption that two meanings A and B are related, if one can observe that a form spreads from meaning A to meaning B (1993: 5). This makes diachronic evidence as important to a semantic analysis as synchronic evidence. In section 1.2.2, I have expressed my adherence to this principle, and in chapter 3, I will argue that this principle can improve our understanding of the morphological distribution of the different aorist formations and its semantic implications. The second point of importance concerns the historical development of the reflexive marker. Kemmer describes the frequently occurring development from a reflexive pronoun (used with verbs of grooming, and many verbs of motion) to a more general middle marker that also includes mental (emotional and cognitive) events and spontaneous events. In some cases, this middle marker also develops a passive meaning. If we transpose these finding to Ancient Greek, we can assume a semantic relatedness between different middle uses in the following way: at the one extreme, the reflexive-like uses (the direct reflexive middle and the pseudo-reflexive middle) are located, and at the other, the passive is located. In between these uses lie the emotional, cognitive and spontaneous uses (Rijksbaron's pseudo-passive). In chapters 2 and 3, I will produce evidence that this configuration is, in principle, correct, and I will, furthermore, propose a number of refinements.

In chapter 6, Kemmer presents a 'semantic map' which represents the network consisting of the various middle situation types and the semantic relations existing among them (1993: 202). This map of the interrelations between middle types is based on the shared semantic properties that were revealed by the typological and diachronic data that were analysed in the preceding chapter of her study. Since this map is based on a large collection of typological data, it is claimed to have universal validity. In other words, the semantic relations established in the map are claimed to be relevant to all languages. In particular, the set of uses found in any one language is predicted to form a contiguous region on the map: "(...) we would in principle expect the semantic range of a given form to extend only over a set of uses in which each use is directly related to at least one other use in the set" (Kemmer 1993: 222). The diachronic correlate of this prediction is that the spread of a given form is predicted to follow the pathways which are formed by the semantic relations, that is, from one use to another, directly linked, use.

As was said at the outset of this section, Kemmer's book is an inspiring and rich Fundgrube for any student of voice phenomena. In the discussion above, it must be noted,

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60 The situation we find in Ancient Greek, with both a middle inflection and a historically non-related emphatic reflexive marker (e.g. 3s acc. ἐκτοῦ 'himself'), appears to be directly inherited from PIE. Note that ἐκτοῦ contains the morpheme ἐ- which is a direct descendant from PIE *sue.

61 This development has also been described by Haspelmath (1987: 35).
I have restricted myself to those aspects of the work that are of particular interest to my own study of the Greek middle voice.
1.3 Two General Issues

In the preceding sections, I have set out the major problems that will be dealt with in this study, and I have presented the basic assumptions that will underlie my analysis. Now I will address two general issues that are important to an understanding of the middle voice. First, we will consider the status of the media tantum within the middle voice system, and secondly, we will discuss the notion of valence reduction as an explanation for middle voice phenomena.

1.3.1 The Status of the Media Tantum

Media tantum are traditionally treated as a distinct class (see for instance Smyth-Messing 1956: 393; Schwyzer-Debrunner, II: 228-9). This approach, however, is not entirely unproblematic. First, it is clear that the class of media tantum is semantically highly diverse. A superficial glance at a selection of media tantum may demonstrate this point: ἀγονίζομαι ‘contend’, ἀκροάομαι ‘listen’, ἀλλομαι ‘jump’, βούλομαι ‘want’, γίγνομαι ‘be born, become’, δέχομαι ‘accept’, ἑπίσταμαι ‘know’, ἑρχομαι ‘go’, εὐχόμαι ‘pray’, λογίζομαι ‘calculate’, πυνθάνομαι ‘learn, hear; inquire’. The diversity within this class is also manifested by the differences in aorist morphology. Some of these verbs may have a sigmatic middle aorist, others a passive aorist, and yet others thematic or root aorists. The rationale behind the distribution of the different aorist formations will be the subject of chapter 3.

A second difficulty in treating the media tantum as a separate class is that, in doing so, two inconsistent criteria are applied. On the one hand, the various oppositional middle types are distinguished purely on the basis of semantic criteria. For instance, the indirect reflexive middle is distinguished by the semantic feature subject profits from action, and the passive middle is defined by the fact that the subject is semantically a patient. On the other hand, the media tantum are distinguished by a completely different criterion, namely the non-existence of an active form. This criterion stands orthogonal to the semantic criterion that is applied to the oppositional middles.

From a methodological point of view, it is preferable to aim at a unified account of both oppositional middles and media tantum. Here and in chapter 2, I shall argue that such a unified account is indeed possible on the basis of purely semantic criteria. For a great number of media tantum it is possible to classify them under the already established middle uses in a straightforward way. Many of these media tantum are semantically very close to oppositional middles. It would, therefore, be highly unnatural to treat them as belonging to a separate class for the sole reason that they do not have an active counterpart. A nice case in point is the medium tantum ἔστημι ‘enjoy’ which is semantically very close to the oppositional middles εὕρονομαι ‘be glad’ (active causative εὕρονομον

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62 The oppositional middles are those middle verbs that stand in opposition to an active verb. Two typical examples are: (i) middle παρασκευάζομαι (indirect reflexive, direct reflexive, or passive) vs. active transitive παρασκευάζω, and (ii) middle ἵσταμαι (indirect reflexive, intransitive, or passive) vs. active transitive ἵστημι.
'make glad') and Homeric τέρπομαι 'amuse oneself' (active causative τέρπω 'amuse'). It therefore makes good sense to classify ἤδομαι as a pseudo-passive (in Rijksbaron's terminology).

Supporting evidence for the view that media tantum have to be treated on a par with the oppositional middles is based on their morphology. The media tantum generally make the same choice for either the sigrmatic middle aorist or the passive aorist form as do the oppositional middles of the same semantic type. For example, ἤδομαι has a passive aorist ἤphans just like εὐφραίνομαι - ἤɲφρανθην. I will go into the morphology of the aorist stem extensively in chapter 3.

In the same way, other media tantum can be classified under the already familiar middle uses. On closer inspection, it becomes clear that most media tantum belong to a restricted number of semantic classes. These are:

(37) Media tantum: semantic types

- a. Media tantum with a beneficiary/recipient-subject: δέχομαι 'accept, receive', ἐργάζομαι 'work, make', κτάομαι 'acquire'
- b. Media tantum of body motion: ἄλλομαι 'jump', ἔκομαι 'follow', ἔρχομαι 'go', πέτομαι 'fly'
- c. Media tantum of emotion and cognition: ἅγαμαι 'wonder', ἄχομαι 'be grieved', βούλομαι 'want', ἔραμαι 'love', ἤδομαι 'enjoy', οἴομαι 'think', πυνθάνομαι 'learn, hear'
- d. Media tantum of volitional mental activities: λογίζομαι 'calculate', μηχανώμαι 'contrive'
- e. Reciprocal media tantum: ἀγωνίζομαι 'contend', μάχομαι 'fight'
- f. Media tantum of perception: ἀκροάομαι 'listen', δέρκομαι 'gaze, look at', θεάομαι 'gaze', ὁφραίνομαι 'smell', σκέπτομαι 'look'
- g. Speech act media tantum: αἰτιάομαι 'accuse', ὀράουμαί 'pray', ὀλοφρόμαι 'lament', μαρτύρουμαι 'call to witness', μυθέομαι 'speak'

The first three types (a-c) can be readily recognized as being related to oppositional middle types. The media tantum with a beneficiary/recipient-subject (a) can be identified as indirect reflexive middles. This identification is also supported - or at least not contradicted - by the aorist morphology as both the indirect reflexive oppositional middles and the indirect reflexive media tantum consistently have a sigrmatic middle aorist, and never a passive aorist, as for example, ἐδεξάμην, εἰργασάμην, ἐκτησάμην. The media tantum designating body motion can be classified as pseudo-reflexive middles on a par with middles like ἀπαλλάττομαι 'depart', ἰστώμαι 'stand up, stand still', πορεύομαι 'go, march'. Lastly, the media tantum designating emotion and cognition can be identified with Rijksbaron's (1994) pseudo-passive middles (type φοβῶ 'frighten' - φοβέομαι 'fear').

Again, aorist morphology suggests that uniting the oppositional middles and the media tantum designating mental processes is justified since both always have a passive aorist.

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63 Note that, after Homer, an active causative verb ἠδοου was created. I would take this as confirmation that the border between media tantum and oppositional middles is not a very important one, since it is easily crossed.
form, and never a sigmatic middle aorist: e.g., oppositional middles: ἐλυπήθην, ἔφοβήθην, ὄργισθην; media tantum: ἐβουλήθην, ἔσθην, ἀφήθην. ⁶⁴

The last four types (d-g) cannot be compared to the already established oppositional middle uses. Yet I will argue that they should not be set apart completely from the other middle uses; they should, instead, be integrated into the polysemous structure of the middle voice, just like the other (oppositional) middle usage types. In other words, these types of media tantum can be seen as nodes in the semantic network linked to the other, more familiar, nodes. In chapter 2, I will show that the four types at issue are semantically closely connected to the other middle uses, and that the boundaries between them are only a matter of gradiency. In chapter 3, it will be shown that there is also evidence from aorist morphology for the existence of polysemous relations between the media tantum and the oppositional middles.

1.3.2 Valence reduction

Earlier in this chapter I argued that the middle voice as a category can be characterized by a semantic feature, namely subject-affectedness. There is, however, a substantially different approach in the literature on the middle voice and reflexive verbs. This more syntactically oriented approach sees the middle voice as a marking of valence reduction. Valence reduction implies, in brief, that by means of the middle voice morpheme transitive predicates are detransitivized. An early example of this approach is Marguliéś (1929-30: 116): "Wenn wir bedenken daß es keine idg. suffixalen Intransitivbildungen gibt, dann scheint es nicht zu gewagt, anzunehmen, daß die ursprüngliche Funktion der Medialendungen die Intransitivierung war." More recent attempts along these lines are Aissen (1982), Dik (1982) [on reflexive verbs], Geniušiene (1987) [on reflexive verbs], Risselada (1987) [on Ancient Greek], Dik (1997b: 9-15).

There are, however, a number of serious objections to this approach. Firstly, in probably all middle voice systems, as in Greek, there is a class of media tantum - middle verbs that do not have an active counterpart. Clearly, these verbs cannot be derived from active predicates by an argument reduction rule. As a possible solution for this problem one could 'condemn' the media tantum to the lexicon. This solution is, however, not very elegant since it means that the attempt at a unified account of the middle voice is abandoned, and that a highly frequent class of middle verbs is basically left unaccounted for. Moreover, this view contravenes the usage-based approach adopted here, since the latter approach claims that storage in the lexicon and the existence of a general grammatical rule are not mutually exclusive (the "non-reductionalist" view). Therefore, though it is clear that media tantum are individually stored in the lexicon, it is possible that they can be subsumed under a more general schema together with the oppositional middles. Furthermore, oppositional middles and media tantum cannot be distinguished by the criterion that the former are grammatical, and the latter lexical, since many frequently occurring oppositional middles are probably stored in memory (i.e. "in the lexicon") as

⁶⁴ Rijksbaron, too, remarks that the fact that the agentive media tantum have a sigmatic middle aorist is in accordance with the agentive direct and indirect reflexive uses. Furthermore, the passiva tantum semantically resemble the pseudo-passives of causative verbs. Both are mostly non-agentive and intransitive and have passive aorist forms (see Rijksbaron 1994²: 156-7).
well. For example, it is improbable that a highly frequent verb form like ἵστημι ‘stand still, stand up’ was computed from scratch by a grammatical derivational rule on the basis of the active form ἵστημι ‘make to stand’ every single time it was uttered. It is more plausible to assume that the form ἵστημι had become entrenched as a fixed unit (because of its high frequency), and was retrieved automatically from memory as a pre-packaged whole, which clearly cuts down on processing efforts.

A second objection to the valence-reduction approach is related to the previous one. It is a fact that most intransitive middles have a higher frequency than their active transitive counterparts. The following table shows token-frequencies of active transitive and middle intransitive verbs in Herodotus (based on Powell’s lexicon (1938)):

Table 3: Frequencies of transitive active vs. intransitive middle in Herodotus

<table>
<thead>
<tr>
<th>Transitive Active</th>
<th>Intransitive Middle</th>
</tr>
</thead>
<tbody>
<tr>
<td>αἰσχύνω ‘disgrace’</td>
<td>αἰσχύνομαι ‘feel shame’</td>
</tr>
<tr>
<td>ἀπαλλάσσω ‘set free from’</td>
<td>ἀπαλλάσσομαι ‘depart’</td>
</tr>
<tr>
<td>αὐξάνω ‘grow (trans.)’</td>
<td>αὐξάνομαι ‘grow up’</td>
</tr>
<tr>
<td>ἐγείρω ‘stir up’</td>
<td>ἐγείρομαι ‘wake up, arise’</td>
</tr>
<tr>
<td>ἐλέησυ ‘cause to hope/expect’</td>
<td>ἐλέησομαι ‘hope, expect’</td>
</tr>
<tr>
<td>ἵζω ‘seat’</td>
<td>ἵζομαι ‘sit down’</td>
</tr>
<tr>
<td>ἱστημι ‘set, put’</td>
<td>ἱστημαι ‘stand’</td>
</tr>
<tr>
<td>κῆδο ‘trouble, distress’</td>
<td>κηδομαι ‘care about’</td>
</tr>
<tr>
<td>κομίζω ‘carry, fetch, take’</td>
<td>κομίζομαι ‘travel’</td>
</tr>
<tr>
<td>λείπω ‘leave behind’</td>
<td>λείπομαι ‘stay behind’</td>
</tr>
<tr>
<td>λυπάω ‘harass’</td>
<td>λυπάομαι ‘be angry’</td>
</tr>
<tr>
<td>μυμνήσκω ‘remind’</td>
<td>μυμνήσκομαι ‘remember; mention’</td>
</tr>
<tr>
<td>ὄρμάω ‘urge, dispatch’</td>
<td>ὄρμαομαι ‘set off’</td>
</tr>
<tr>
<td>παύω ‘stop’</td>
<td>παύομαι ‘cease’</td>
</tr>
<tr>
<td>πείθω ‘persuade, convince’</td>
<td>πείθομαι ‘believe, obey’</td>
</tr>
<tr>
<td>πορεύομαι ‘make to go, convey’</td>
<td>πορεύομαι ‘travel, march’</td>
</tr>
<tr>
<td>σηκωμαι ‘make rot’</td>
<td>σηκωμαι ‘rot’</td>
</tr>
<tr>
<td>στέλλω ‘send’</td>
<td>στέλλομαι ‘set forth’</td>
</tr>
<tr>
<td>τήκω ‘melt (trans.)’</td>
<td>τήκωμαι ‘melt (intr.)’</td>
</tr>
<tr>
<td>τρέπω ‘turn (trans.)’</td>
<td>τρέπομαι ‘turn (intr.)’</td>
</tr>
<tr>
<td>τρέφω ‘grow (trans.), nurture’</td>
<td>τρέφομαι ‘grow up’</td>
</tr>
<tr>
<td>φαίνω ‘show’</td>
<td>φαίνομαι ‘appear’</td>
</tr>
<tr>
<td>φοβέω ‘alarm’</td>
<td>φοβέωμαι ‘fear’</td>
</tr>
<tr>
<td>φυσίζω ‘produce, grow (trans.)’</td>
<td>φούσιμαι ‘grow (intr.)’</td>
</tr>
<tr>
<td>φέρω ‘carry, bring’</td>
<td>φέρομαι ‘fall, drift, charge’</td>
</tr>
<tr>
<td>ψεύδω ‘deceive’</td>
<td>ψεύδομαι ‘be mistaken’</td>
</tr>
</tbody>
</table>

In general, the middle intransitive forms occur far more frequently (printed in bold-face) in Herodotus than the active transitives. It strikes me as rather counter-intuitive to consider the intransitive middles as derived from, or somehow secondary to, the active transitive

65 The point that both grammatically irregular forms (e.g. the English strong verbs) and regular forms are lexically stored is also made by Bybee (1985: 113-4, and passim).

66 Note that most middle intransitive verbs have passive aorist forms in -(θ)η-. These forms are included in the frequency-figures.
counterparts, considering that intransitive middles generally have a higher token-frequency. Although, in general, one could maintain that the middle voice is marked in comparison with the active voice (in terms of frequency, semantic content, and morphological markedness: see my discussion of markedness above (1.1.4)), in the case of these causative active and intransitive middle verbs the markedness-relation seems to be reversed. The frequency figures above clearly attest to that. Furthermore, the intransitive middles can be considered unmarked from a semantic point of view, as well. The event denoted by the intransitive middles (roughly: an autonomous change of state of the subject) is semantically more simple than the event denoted by the active causative verbs, since the latter add a causer-participant to the event. A third objection to the valence-reduction view on the middle voice is that many middle voice verbs are transitive, just as their active counterparts, like, for instance, the frequent and productive class of indirect reflexive middles. In conclusion, the valence-reduction view on the middle voice is unattractive. It is preferrable to seek a purely semantic explanation instead. In section 1.1.3, I argued that the middle voice can be explained adequately as a marker of subject-affectedness.

On the contrary, there are well-known cases in which an active transitive is created next to an old intransitive middle, e.g. ἤδω to ἥδομαι, μαίνω to μαίνομαι, πέθω to πεθομαι. These active causative vs. middle intransitive pairs contravene the global markedness of the middle voice. This phenomenon is can be called local markedness (see Tiersma 1982, Bybee 1985: 74-6).

Sometimes, a more restricted view is adopted, namely that the passive aorist form exhibits valence reduction. This view is advocated by Andersen (1989, 1993). Yet, two of the objections that were discussed above are equally applicable. First, there are many media tantum with passive aorists (passiva tantum), e.g. ἔβουλθην 'I wanted', ἐδουνῆν 'I could', ἡδέθην 'I was ashamed', ὄφηθην 'I thought'. Obviously, these passive aorists could never be derived from transitive counterparts. Secondly, the passive aorists often have a higher token-frequency than their active counterparts (e.g. ὁρμησα 'I urged, dispatched' vs. ὁρμηθην 'I started off'), which makes it unnatural to consider them as derivations of the active transitives. The third objection does not apply since passive aorists are not transitive. In chapter 3, I will argue that the passive aorist form expresses that the subject is similar to a prototypical patient.
CHAPTER 2

The Middle Voice as a Complex Network Category

In the first chapter, I set out Langacker's *Complex Network Category Model*. The most important components of this model were abstract schema, elaboration, extension, and prototype (sections 1.2.1, 1.2.2.). In section 1.2.2, it was argued that the Greek middle voice category may be analyzed insightfully as a complex network category. In this approach, the middle voice is seen as a polysemous network of interrelated meanings. The abstract schema, embodying the semantic commonality of all middle meanings, can be characterized as *affectedness of the subject*. The different middle meanings can, in turn, be viewed as elaborations of this abstract schema.

In this chapter, the structure of the network of the middle voice in Ancient Greek will be analyzed. I will propound a classification of middle uses, and I will describe the semantics of each middle meaning in more detail. We will see that the most essential semantic properties relate to the subject, and especially to the subject's semantic role. Furthermore, for each middle meaning I will try to ascertain to which other middle meaning it is related. The main criterion for establishing a relation between two middle types is to assess whether or not they have salient semantic properties in common. In some cases, subsidiary criteria are used. For example, semantic changes can indicate semantic relatedness; when it can be established that a certain verb first belonged to type A, and then to type B, it can be assumed that type A and B are semantically related. This analysis will finally result in a semantic map of the Greek middle voice, representing a network consisting of the various middle uses and their semantic interrelations. The final issue that will be addressed in this chapter concerns the category prototype. It will be investigated which of the middle uses can be regarded as the most salient member of the category.

The middle uses to be discussed are the passive middle (2.1.1), the spontaneous process middle (2.1.2), the mental process middle (2.1.3), the body motion middle (2.1.4), the collective motion middle (2.1.5), the reciprocal middle (2.1.6), the direct reflexive middle (2.1.7), the perception middle (2.1.8), the mental activity middle (2.1.9), the speech act middle (2.1.10), the indirect reflexive middle (2.1.11). The uses that are discussed first (2.1.1 - 2.1.5) predominantly have a passive aorist form in -(Θ)η-, whereas the uses discussed last (2.1.6 - 2.1.11) generally have a sigmatic middle aorist.
2.1 A Classification of Middle Usage Types

2.1.1 Passive Middle

In a typical passive clause, the patient is assigned subject-status.\textsuperscript{69} The agent is rarely expressed by an explicit noun-phrase\textsuperscript{70}. Essential is, however, that an agent-participant is conceptually present, but pragmatically deemphasized.

\begin{enumerate}
\item \begin{flushleft}έγὼ δὴ ὑπ' ἐξθροῦ (...)
ὑβριζόμην (Dem. 21.74)
\end{flushleft}
I was assaulted by an enemy.

\item \begin{flushleft}ὁ μὴ δαρείς ἀνθρωπος οὐ παιδεύεται (Men. Mon. 422)
\end{flushleft}
The man that has not been thrashed gets no education.
\end{enumerate}

Example (2) is a proverb, and it has a generic agent. Generic agents are typically left implicit. Yet, the presence of an agent is still conceived of, due to the inherent lexical semantics of the verbs δέρω and παιδεύω which both denote events that are externally initiated.

Passive clauses can also contain an instrument or a cause.

\begin{enumerate}
\item \begin{flushleft}τούτων δὴ ὄν τὸν "Ἀτυν σημαίνει τῷ Κροίσῳ ὁ ἄνειρος, ὡς ἀπολέει μιν αἰχμή σιδηρεῖ βληθέντα (Hdt. 1.34.3)
\end{flushleft}
It was concerning this Atys that the dream communicated with Cyrus, namely, that he would lose him stricken by an iron spear-point.

\item \begin{flushleft}νόσω τε γὰρ ἐπέξοντο (...)(Th. 7.47.2)
\end{flushleft}
For they were distressed by sickness (...).
\end{enumerate}

The passive interpretation of these clauses is primarily based on the lexical semantics of the verbs βάλλω and πιέζω that necessarily imply an external initiating agent. In (3), the dative constituent must be interpreted as an instrument. The identity of the future slayer of his son Atys - the implicit agent of βληθέντα - is not revealed to Croesus in his dream. In this way, the audience is deliberately kept in suspense by the narrator. This type of expression, with an instrument and an unspecified agent, resembles expressions in which

\textsuperscript{69} In Classical Greek, there are passives of which the subject corresponds with a genitive or dative complement in the active construction, e.g. ἐπιβολεύω τινί, ἔφρω τινός, βοηθεώ τινί, κατασχέω τινός, ὀλιγοφρέω τινός, πολεμέω τινί, φθονεώ τινί (cf. K-G, I: 124-5, Mulder 1988, Rijksbaron 1994: 136, Conti Jiménez 1998). It is noteworthy that the second arguments are typically human, i.e. entities that are natural discourse topics. This possibly explains that they are capable of being selected as subjects. In addition, the semantic feature of affectedness may be relevant. Many verbs that allow this type of passives designate a 'negative' emotional attitude towards the second participant (φθονεώ τινί), or imply an exertion of force/power (πολεμέω τινί, ἔφρω τινός). Thus, the second participant can be said to be affected ('patient-like').

\textsuperscript{70} The infrequency of explicit agent-phrases is born out by the figures given by Rijksbaron (1994: 138): of the 22 passive instances in Herodotus, the agent is expressed only twice. For a discussion, from a diachronical perspective, of the different morphosyntactic alternatives of expressing the agent in a passive clause, I refer to Jankuhn (1969: 101-11).
an external agent is not conceived of altogether, as in (4). The cause-participant νοσσω can be considered the ultimate initiating entity. This peripheral type of passive clause lies at the boundary between the passive use and the spontaneous process type (cf. τήκεται πυρί 'It is melting because of the fire'). I will discuss the latter middle usage next (2.1.2).  

Passive clauses may or may not involve a change of state of the subject. The notion change of state implies that an entity is in a certain state at moment $T_1$ that is different from the state it was in at $T_0$. For instance, a verb like βάλλομαι (υπό) 'I am being hit (by)' does not denote a change of state, since the direct object may be in exactly the same state after it was hit as it was before. A verb like τίκομαι (υπό) 'I am being destroyed (by)', on the other hand, necessarily implies a change of a state. The subject undergoes a transition from being solid to being liquid. Other passive verbs that denote changes of state are ἀπολλύμαι (υπό) 'I am being destroyed (by)', ῥηγνύμαι (υπό) 'I am being broken (by)', πείθομαι (υπό) 'I am being persuaded (by)' (see also note 3).

2.1.2 Spontaneous Process Middle

The spontaneous process middle involves subjects that undergo an internal, physical change of state. The subject has the semantic role of patient (cf. the passive middle). An essential property of the spontaneous process type is that it is conceptualized as occurring without direct initiation by an agent. In this respect, it is different from the passive type that implies a - mostly unspecified - agent.

(5) (... πέλας τῶν κῆπων (...), ἐν τοῖς φύεται αὐτόματα ρόδα (Hdt. 8.138)
(...) near the gardens (...), wherein roses grow of themselves, (...).

The absence of any agent is explicitly expressed by αὐτόματα.

Almost all middles denoting spontaneous processes have an active causative counterpart. Examples of middle verbs denoting spontaneous processes are:  

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71 Note that also active forms may express a passive meaning, e.g. ἔδωκαν 'I was caught', θυγατρό υπό 'I am being killed by' (see section 1.1.4). This phenomenon supports the claim that the active voice is semantically unmarked.

72 The subdivision below is meant to give an impression of the semantic variety of the verbs at issue. The subdivision is not clear-cut: many verbs fall under more than one heading. Note in passing that the spontaneous process middles have either a root, a thematic or a passive aorist, that is, never a sigmatic middle form. I will deal with this morphological issue in chapter 3. Note, further, that many verbs of the spontaneous type have an active root perfect (with intransitive meaning): (ἀπο)δολάλα, γέγονα, τέτροφα (Hom.), ἔφθορα (Hom.), πέφυκα, πέπηγα, ἔρρωσα, τέτηκα, πέφηγα.
Physiological processes

Involving organic entities
(ἀπό)όλλωμι 'die, perish'
αὐξάνω 'grow (intr.)'
γίνομαι 'be born, come into being, become'
σήκω 'rot'
τρέφομαι 'grow up'
φθείρωμαι 'perish'
φύω 'grow'

Involving inorganic entities
καίμαι 'burn (intr.)'
πήγγομαι 'get stuck, become solid'
πιστασμα 'become full'
ῥήγγομαι 'break, burst (intr.)'
τήκομαι 'melt'
χέιμαι 'flow, melt'

Changes in physical properties
λευκαίνω 'grow white'
ἐρυθραίνω 'become red, blush'
ζηραίνω 'become dry'
θερμαίνω 'become warm'
tερσομαι [Hom., Hp] 'become dry'
ψύχομαι 'grow cold, become dry'

Appearing and disappearing
ἀφανίζομαι 'disappear'
φαινομαι 'become visible, appear'
φαντάζομαι 'become visible'

(ἀπό)όλλωμι 'destroy, kill'
αὐξάνω 'increase, grow (trans.)'
σήκω 'make rotten'
τρέφω 'cause to grow, bring up, rear'
φθείρω 'destroy, ruin'
φύω 'bring forth, produce, beget'
καίμαι 'burn (trans.)'
πήγγομαι 'stick in/on, make solid'
πιστασμα 'fill'
ῥήγγομαι 'tear, break, burst (trans.)'
τήκω 'melt (trans.)'
χέιμαι 'pour out, let flow'
λευκαίνω 'make white'
ἐρυθραίνω 'make red'
ζηραίνω 'parch, dry up'
θερμαίνω [late] 'make hot'
ψύχω 'make cold, make dry'
ἀφανίζω 'make unseen, remove'
φαινω 'cause to appear, show'
φαντάζω 'make visible'

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73 The glosses mostly refer to the most typical meaning(s) of the verb. Needless to say, glosses can never perfectly render the complexity of the semantics of the target-word.

74 The sigmatic aorist ἐγείνωμαι functions as a causative in the specific sense 'bring forth, beget'. The middle inflection expresses that the subject, as a result of the action, has children, i.e. the subject is a beneficiary.

75 These verbs are frequently derived from adjectives designating states (λευκός, ξηρός etc.). Some are derived from the same root as adjectives (e.g. θερμός and θερμός, from the root θερ-).

76 In Homer, causative τερσομαι occurs.

77 The original sense of the active verb ψύχω was 'blow'.

78 Φανομαι in the sense 'seem' (construed with infinitive complement) does not denote a change of state, but rather a state proper (see also ch. 4). This use has diverged from the typical spontaneous process.
Verbs of happening and occurring

Other terms found in the literature that refer to approximately the same event type as *spontaneous process* are: *anticausative* (Geniušiene 1987, Haspelmath 1987, 1990, 1993, Andersen 1989, 1994), *processual decausative* (Gerritsen 1990), and *pseudo-passive* (Rijksbaron 1994). I have adopted the term *spontaneous process* (Kemmer 1993), because it is more specific than the other terms, and it does not suggest - as *anticausative*, *decausative* and *pseudo-passive* do - that this type is secondary in relation to the causative and the passive. Rather, I would contend that the contrary is true, at least as far as Greek is concerned (see section 1.3.2, and below). Indeed, of most verbs, the active causative construction is better viewed as secondary with respect to the intransitive spontaneous middle construction. Langacker uses the term *absolute construal* for "[t]he construal of a relationship (especially a conceptually autonomous thematic relationship) without reference to causation or the energy that drives or sustains it" (Langacker 1991a: 543). According to Langacker, this situation type is conceptually basic compared to its causative counterpart. This becomes clear when one considers the fact that we can conceive of the entity as autonomously undergoing the change without external causer, whereas the causer can only be imagined in relation to a causee. Langacker (1991a: 287) illustrates this with the following examples:

(6)  a. The wind caused the tree to fall over.
    b. The tree fell over.
    c. *The wind caused.

The situation can be described with reference to both the causer and the causee (a), or autonomously, i.e. only with reference to the entity undergoing a change (b). (c) does not make sense, as it does not refer to a change induced to some entity. Similarly, the other intransitive middle types *body motion middle* and *mental process middle* can be considered conceptually basic as compared to their (active) causative counterparts. I will discuss these middle usage type in sections 2.1.3 and 2.1.4. The basicness of the spontaneous event middles in relation to their causative active counterparts is also revealed by their actual frequency of use. In most cases, the middles have a higher token-frequency than the active (see section 1.3.2).

The spontaneous event type is semantically middle (as opposed to active and passive) "in that the affected entity is not only an Endpoint, but is also conceptualized as

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79 E.g.: Λ 671 Ηλείοισι καὶ ἡμῖν νείκος ἐτύχθη/ ἀμφὶ βοηλοσίῃ (′... strife arose between the Eleans and us about the stealing of cattle, (…)′).

80 For more on the terminology found in the literature, see Haspelmath (1987: 8-10).

81 By the notion thematic relationship, Langacker means "A comparatively simple, conceptually autonomous relationship involving just a single participant (a *theme*). As to *theme*: "The notion is schematic with respect to a number of role archetypes, including patient, mover, (non-initiative) experiencer, and zero" (Langacker 1991: 554).
an Initiator" (Kemmer: 145 [the italics are mine]). According to Kemmer, the event can be portrayed as occurring spontaneously in two different cases. In the one case, no salient entity is available that might be presented as an initiator of the event. For example, an apple is seen as rotting spontaneously, because no clearly identifiable, salient cause can be conceived of. Examples in Greek are verbs like σήκωμαι 'rot' and ίόμαι 'rust'. In the other case, there is an entity present in the scene that can be viewed as a cause(r). However, the speaker wishes to deemphasize this entity's role in the event for pragmatic reasons.

A considerable number of middle verbs can both denote events that are initiated by an external (volitional) entity, and events coming about autonomously. Examples of this type are: καίομαι 'burn (intr.)' (spontaneous process) and 'be burnt' (passive); ὀλλομαι 'perish' (spontaneous process) and 'be destroyed' (passive); πηγνυμαι 'stick (intr.)' (spontaneous process) and 'be stuck' (passive); ἄργυμαι 'burst, break (intr.)' and 'be broken' (passive); τήκομαι 'melt (intr.)' (spontaneous process) and 'be melted' (passive). The transition between the two meanings is gradient. It is often very difficult to decide whether we are dealing with a spontaneous process or with a true passive. An example is

(7) νῦν ὃλετο πάσα κατ' ἄκρης
"ἵλιος αἰπεινή (N 772-3)
Now is all steep Ilíos utterly destroyed.

In such cases, the absence of an overt agent implies either that the agent is present somewhere in the background of the speaker's conception of the situation - in this case, the Greeks? -, or that the agent is pragmatically irrelevant, or even that the event is conceptualized as lacking an agent altogether (see Sicking & Stork 1996: 133). This means that the predicate is totally neutral as to the existence of an initiator. An example that explicitly attests to such an initiator-neutral meaning is:

(8) "Ἡν δὲ μὴ δύνηται πολλοῦ χρονοῦ ραγήναι, μήτε ὑπὸ ταυτομάτων, μήτε ὑπὸ φωρμάκων, τήκεται ὁ ἀσθενέων ὑπὸ ὁδυνών ἰσχυρῶν, (...) (Hp. Morb. 1.19)
If the turbicl e fails to rupture for a long time, either spontaneously or by drugs, the weakened patient melts away as the result of his violent pains, (...).

The verb ραγήναι is used here in an ambiguous way, as can be inferred from the following clause which explicitly refers to both possible readings of ραγήναι. On the one hand, the adverbial phrase ὑπὸ ταυτομάτων refers to the spontaneous meaning. On the other hand the phrase ὑπὸ φωρμάκων implies a more passive-like meaning of ραγήναι. I use the term 'passive-like' since the drugs are not a prototypical volitional agent. The drugs could also be interpreted as a cause.

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82 An example in English would be the utterance: "The vase broke", when it is said by a little child playing with a football inside the house, answering to a parental question "What's happened here?". Note that the passive can be used for similar reasons (see 2.1.1).

83 This point has also been made by Jahnkuhn (1969: 97-8) and García Gual (1970: 87-8)

84 In general, of these potentially ambiguous middle verbs, the intransitive spontaneous process meaning is far more frequent, whereas the true passive meaning can only be established with certainty in a small number of cases. Thus, for these middles the passive meaning can be considered as a somewhat peripheral
2.1.3 Mental Process Middle

The mental process middle involves an animate subject that experiences a mental affectedness. The subject, accordingly, has the semantic role of experiencer. This affectedness can be of an emotional kind, as in φοβοῦμαι 'fear', or of a cognitive kind, as in μνημοσύνα 'remember', ἐπιστομαί 'know'. In the present stem, these middle verbs designate states, that is to say, they do not involve change over time. However, mental states are typically temporary. As such, mental states are different from states that have a more permanent character such as 'be king', 'be small', 'be red'. The aorist forms of these verbs generally designate that the subject entered a mental state (progressive meaning of the aorist). For instance, aorist ἐφοβήθην 'I became afraid' vs. φοβέομαι 'I am afraid'.

The mental affectedness may be caused by an external stimulus. This stimulus-participant can have a genitive, dative and an accusative case. The semantic implications of the different cases will be discussed below. Many mental state middles have active causative counterparts that designate that a stimulus-subject causes an experiencer to enter into a mental state. With these verbs, the speaker has a choice to assign either the experiencer or the stimulus to subject-status. I shall elaborate on this issue below. Examples of mental process middle verbs are.

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85 Although, typically, the verbs designating mental processes lack agentivity and volition - the experiencer-participant can not intentionally fear/love/hate/get angry, etc. - agentivity appears to be a matter of degree. The experiencer is partially involved in the event in an active way in that s/he makes mental contact with the stimulus, and focusses her/his attention on it. Furthermore, the experiencer can, at least to a certain extent, improve or deteriorate the conditions that are beneficial to the emotional or cognitive process. For example, a person can increase the chances that s/he remembers something by focusing his/her mind.

86 As was noted in section 1.1.4, verbs that denote a more permanent state (often denominative formations) tend to be active in Greek, e.g. βασιλεύει 'be king', ἐρυθραίνω 'be red'.

87 The perfects of these mental state middles often express the highest degree of that state (intensive perfect, see Rijksbaron 1994: 36), e.g. πεφόβημαι 'I am terrified'; πέποιθα 'trust, rely on' (cf. πείθομαι 'believe, obey').

88 Observe that, in Classical Greek, all middles designating mental processes have root, thematic or passive aorists, but never sigmatic middle aorists. In Homer, however, the sigmatic middle aorist does occur with mental process middles, e.g. ἀσόάμην, ἐπεφυγόμην. I will deal with the aorist morphology in more detail in ch. 3. Notice also that a number of the middles below have an 'active' perfect form, e.g. ἔφηγορα (ἐφέρομαι); ἔολπα (ἔλπωμαι); πέποιθα (πείθομαι); μέμηνα (μαίνομαι).
There is also a significant number of media tantum designating mental processes:

άδομαι 'be mistaken' (Hom.)
αἰσχύνομαι (+ dat.) 'be ashamed about'
ἔλπισαι (+ acc.) 'hope, expect, fear' (Hom.)
ζημιοῦμαι (+ dat.) 'enjoy oneself'
κῆδομαι (+ gen.) 'care about, care for'
λαμβάνομαι/λίθομαι (gen.) 'forget' (Hom.)
λυπούμαι (+ acc.) 'to be grieved about'
μμνημοσύνομαι (+ gen.) 'remember'
ὄργυγομαι (+ dat.) 'be angry with'
πειθομαι (+ dat.)89 'believe, obey'
τέρπομαι (+ dat.) 'enjoy' (Hom.)
φοβοῦμαι (+ acc.) 'flee in panic (Hom.); fear'
φράζομαι 'think, consider, perceive'91
ψεύδομαι (+ gen.) 'be mistaken'

άδω (Hom.) 'mislead'
αἰσχύνω 'dishonour'
ἐλπίζω 'cause to hope'
ζημίζω 'please, delight'92
κῆδω (Hom.) 'trouble, distress'
αορ. λελαθείν (Hom.) 'make s.o. forget'93
λυπέω 'grieve, vex'
μμνημοσύνω 'remind s.o. of s.th.'
ὄργυγω 'make angry'
πείθω 'persuade'
τέρπω (Hom.) 'please'
φοβεῖ 'make flee in panic (Hom.); alarm'
φράζω 'show, tell'
ψεύδω 'deceive'

89 In Herodotus, also construed with a genitive, compare ἄκουω + gen. 'hear, listen to, obey'.
90 For a study of the semantic field 'joy' in Homer, see Latacz (1966).
91 For a study of the verbs of thinking in Homer, I refer to Bertolín Cebrián (1996). Φράζομαι can also refer to volitional mental activity (section 2.1.9) and, especially in Homer, perception (2.1.8). This polysemy shows the close relatedness of mental activities, mental processes and perception. A polysemous relation mental process - perception is also found with active verbs, e.g. νοεῖ 'perceive; think'. The perceptual meaning is generally older than the cognitive meaning. The historical development from vision verbs to mental verbs is discussed in Sweetser (1990: 28-34). A nice example of this historical development is the relation between aorist εἶδον 'I saw' and perfect οἶδα 'I know' (< *'I have seen'). Another example is οἶδομαι. οἶδομαι must originally have been the present form that corresponds to the perfect ὠάμαι 'I have seen', future οἴνομαι 'I will see' (and sigmatic aorist ὤψημαι 'I saw', as in τοὺς ἐν ἔργοις ἐπιώυμαι, οἱ δὲ πέφθεκαν (1 167) ('Whomever I shall look upon, let them obey'), and also Pl. Fr. 88.6 [Schroeder] ἐπόνωσε, and Pl. Lg. 947c ὀφθαλματι). In historical Greek, however, ὀσμόμαι acquired a mental meaning 'see in one's mind's eye, presage', e.g. ὀσοντο γὰρ ἄλγεα θυμώ (Σ 224) ('Since they saw woe in their hearts'), cf. also α 115.
92 The causative active sigmatic aorist ἴστε appears first in Anacreon (148); later also the active present occurs.
93 Only the reduplicated aorist functions as a true causative formation to λαμβάνωμαι and its older variant λίθομαι. The active verb λαμβάνω 'escape one's notice' is not causative.
94 παρθένομαι (+ gen.), in its original sense 'learn, hear of', is a boundary-case between a mental middle and a perception middle. Since it designates a mental process 'acquire knowledge' it is not a true mental state middle; it is not a true perception middle since the element of cognition is more prominent in the lexical meaning of the verb than the element of perception. The post-Homeric meaning 'ask', which I would consider a speech act middle (see further below), is almost completely restricted to the present stem. In Homer, the verb πειθομαι - probably the older form - is more frequent than παρθένομαι. In the Cretan dialect, a causative verb πεύδω 'give notice' is found.
95 For an etymology of ἡγομαι, original meaning *'consider great' (from root *megh-, 'great'), see Ruijgh (1996: 383).
The mental process middle is related to the passive middle. In both types, the subject passively undergoes the event. The difference between the two middle types relates to whether or not the event is initiated by an external agent. In many contexts, however, the initiating entity is irrelevant and remains unexpressed. In those cases one cannot decide whether the middle verb is to be assessed as a true passive or as a mental process middle. This can be exemplified by:

(9) Ταύτα εἰπόνεσα, (...) εκείνη μὲν ἀπηλλάγη, ἐγὼ δὲ εὐθέως ἐταραττόμην, καὶ πάντα μου εἰς τὴν γνώμην εἰσήμει (Lys. 1.17)

With these words, (...), she took herself off; I was at once perturbed; all that had happened came into my mind, (...).

The middle ἐταραττόμην could both be interpreted as a true passive (the woman being the external agent), or as an spontaneous mental process. The only relevant thing is that the subject experiences a mental affectedness, and the initiating entity (be it an agent or a cause) is backgrounded. In such cases it can, however, be assumed that the interpretation that is activated first and foremost is the mental process interpretation. This assumption is based on the fact that the mental process use is far more frequent - and is therefore more entrenched - than the passive use. The intransitive meaning thus functions as a default-interpretation, only overruled when explicit indications of a true passive meaning are present in the context. This is a form of processing-economy: 'if the most typical and frequent interpretation makes sense, do not look any further.'

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96 ἔρασμαι may be a ‘Narten-present’ (see Narten 1968), assuming that it has an e-vocalism *h₁erh₂* in the root. Like many other middle ‘Narten-presents’, ἔρασμαι has a stative meaning, cf. εἶμαι ‘be clad’, ἦμαι ‘be seated’, κεῖμαι ‘lie’. In the Classical language, ἔρασμαι is replaced (only in the present stem) by the active verb ἔρχομαι which has a passive ἔράσθη ‘be loved’.

97 Μέμωραι has two (related) meanings, (i) ‘be angry’ (mental state), (ii) ‘blame, rebuke’ (speech act). In the aorist stem, these meanings are formally distinguished: ἐμεμωράμην means ‘I blamed, rebuked’, whereas ἐμεμφέθην ‘I became angry’ (see also section 3.2.3.3).

98 In Homer, we also find an older active verb ὀίω that appears to have the same meaning. For a discussion of (quasi)-synonymous active and middle verbs, see chapter 5.

99 This principle is similar to Levinson’s Q2-heuristic: “What is simply described is stereotypically and specifically exemplified” (Levinson 1995: 97). An example Levinson gives (p. 105): when someone says “Sue moved the car”, the hearer will interpret the utterance as Sue moved the car by driving it, since driving
interpretation was assumed in the case of clauses that are ambiguous between a passive meaning and a spontaneous process interpretation (see section 2.1.2).

The relatedness between mental processes and passives is also borne out by the following example:

(10) (...) ή αὐτοὶ ἤ αὐτοὶ ἄλλοι πεισθέντες ἀπῆλθον (...) (Pl. Th. 150e)

(...) they left, either of their own accord, or persuaded by others (...).

The elements αὐτοὶ and ἄλλοι refer explicitly to an autonomous mental process and a passive meaning, respectively. The form πεισθέντες itself is ambiguous.

Mental processes are also related to spontaneous processes. Both types involve subjects that non-volitionally undergo an internal affectedness. Important differences are: (i) the subject of a mental process is, obviously, animate; (ii) mental processes may involve a second participant, the stimulus.

Mental processes are morphosyntactically coded in highly variable ways, both from one language to another, and within one language. The various coding-strategies especially regard subject/object-assignment and case marking. Generally, one can assume that a different linguistic structure will imply a different construal of the event. In other words, by means of the various formal structures the speaker is able to emphasize or de-emphasize certain aspects of a given situation, or to impose a certain imagery onto the conceptualization of the situation that s/he wishes to portray. For example (from Croft 1991: 214, exx. (68) and (69)),

(11) a. Ed fears the police.
    b. The police frighten Ed.

The two clauses may refer to the same objective scene in the real world. However, the perspectives from which the scene is viewed are different. In (11a) subject status is assigned to the experiencer, in (11b) to the stimulus. This difference in linguistic structure has certain implications. For example, the fact that (in b.) the police is coded as a subject conveys that the police is conceived of as intentionally causing Ed to fear them, or at least, that the police is somehow responsible for Ed’s fear. As for (a.), there are no such implications.

In Greek, the alternation of the transitive active voice and intransitive middle voice can be employed similarly to express alternative perspectives from which a scene is viewed. For instance, an oppositional pair such as φοβέω + acc. ‘cause to fear, alarm’ vs. φοβειμαι (+ acc.) ‘fear’ involve alternative construals of the situation described. The active transitive verb highlights the initiating role of the fear-inducing stimulus (cf. English frighten above), by ‘promoting’ the stimulus to subject status. Typically, this stimulus-subject is more topical in the discourse. In the intransitive middle the experiencer

a car is the most typical way of moving it.

100 Middle verbs that designate spontaneous mental and physical changes are subsumed under the pseudo-passive use by Rijksbaron (1994: 148).

of the fear is made prominent, whereas the stimulus is pragmatically deemphasized. The stimulus may even lack overt expression altogether, as does the agent of a passive construction. Consider the following contrastive pair:

(12)  [Croesus’ son speaks to his father] φής τοι τὸ ὄνειρον ὑπὸ αἰχμής σιδηρέως φόναι ἐμὲ τελευτήσειν. ὦς δὲ κοίτα μὲν εἰσὶ χείρες, κοιὴ δὲ αἰχμὴ σιδηρέως τὴν σὺ φοβεῖται; (Hdt. 1.39.2)
You say the dream declares that I shall die by an iron spear-point. What hands have a boar? Where is the iron spear-point you fear?

Technically, the alternative active causative construction αἰχμὴ σιδηρέως ἆ σὲ φοβεῖτ would have been possible. However, it is more natural that Croesus (σῦ), being a speech act participant, is chosen as the subject of φοβεῖτ, whereas a participant like αἰχμή, being a non-active, inanimate entity, is not likely to be selected as a subject.

(13)  [How the Scythians kill the soothsayers] ἀπολλύει δὲ αὐτὸς τρόπῳ τοὐδε- ἐπεξ ἐν ἀμαξίνοις φρυγάνων πλήσσει καὶ ὑποζεύγει πόυς, ἐμποδίσαντες τοὺς μάντιας (...) κατεργύνει ἐς μέσα τὰ φρύγανα, ὑποπρήσαντες δὲ αὐτὰ ἀπειείσου ϕοβησάντες τοὺς βοῦς (Hdt. 4.69.1)
They kill them in this fashion: they fill a wagon with sticks and yoke oxen to it. They tie the soothsayers’ feet (...). Then they shut them into the middle of the sticks, set fire to them, and terrifying the oxen, drive them off.

The Scythians, being human agents, are the primary topic of this stretch of discourse. It is therefore natural that they are consistently selected as clause-subjects (e.g. φοβησάντες), and that the oxen, being actors of a secondary prominence in the discourse, are coded as direct objects.

Between the two alternative constructions, active causative vs. middle intransitive, there is an asymmetrical relation. Consider, for instance, the frequencies of active causative φοβέω and middle φοβέωμαι in Herodotus: 2 against 21. This difference in frequency is found in almost all active causative - middle intransitive pairs (see also the frequency-figures in section 1.3.2). This asymmetrical relation can be explained as follows. Conceptually, the mental process can be considered more basic (less complex) than its causative counterpart. Mental processes can be conceived of as occurring without reference to an external cause that brings it about or sustains it (cf. spontaneous processes, section 2.1.2). For example, *he suddenly got very angry is a complete expression. Conversely, in the corresponding causative, the causation cannot be described without reference to the causee, e.g., he made very angry. In discourse, the conceptually more complex causative construction is only used in the case that the stimulus outranks the experiencer in salience and topicality. However, this will not be the case very often since experiencers are typically human, and therefore tend to be important discourse participants.

Apart from the variation between active causative and middle intransitive constructions discussed above, we find another type of variation in the class of mental process verbs. This concerns the case marking of the stimulus-participant. In Greek, the stimulus can be marked with the genitive, dative, and accusative case. Some verbs can be construed with more than one case. In addition, many verbs can also be construed with prepositional

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102 This way of conceptualizing events is termed absolute construal by Langacker (1991: 287-91).
objects. The variability of case-marking can be explained by Croft's model of the structure of mental events (Croft 1991: 213-25, Croft 1993).\textsuperscript{103} This model accounts for the various case-marking patterns and voice-phenomena that are typically associated with the expression of mental events. According to Croft, mental events typically involve two participants - an animate \textit{experiencer} and a \textit{stimulus} -, and two causal relations between these participants. On the one hand, the experiencer directs his/her attention to the stimulus (or a mental representation thereof). The stimulus, on the other hand, causes a mental affectedness in the mind of the experiencer.\textsuperscript{104} The configuration of experiencer and stimulus and the two causal chains between them is represented in the following figure (cf. Croft 1991: 219, Croft 1993: 64, Kemmer 1993: 128):

\textbf{Fig. 1: The Conceptualization of Mental Events}

![Diagram of mental event conceptualization](image)

The dashed arrows indicate that the interactions are of a mental kind (as opposed to the physical interaction of the prototypical transitive event, see chapter 1).

There is a great variety of case-marking patterns of mental verbs in Greek. Although these case-marking patterns are not entirely predictable, they are not completely arbitrary either. My claim is that they are motivated by the conceptual structure that is inherent to mental events, as it is proposed by Croft. Cases highlight one particular facet inherent in this causal relation at the expense of others. In other words, the alternative case constructions present the scene by means of different images.\textsuperscript{105}

\textsuperscript{103} \textit{Mental event} is used here as a general term. It includes mental processes, mental activities, and perceptions.

\textsuperscript{104} Mental events are \textit{semantically} middle (as opposed to active and passive) in that the subject is both Initiator of the action chain (by making mental contact), and the Endpoint (undergoing a change of state), see also Kemmer (1993: 129).

\textsuperscript{105} See Langacker (1987: 39-40, 110). On page 110, he gives the following illustrative examples of different sentences that could be used to describe the same objective situation, but evoke substantially different images to do so: (a) The clock is on the table; (b) The clock is lying on the table; (c) The clock is resting on the table; (d) The table is supporting the clock. "Lexicon and grammar are storehouses of conventional imagery, which differs substantially from language to language. For if one language says \textit{I am cold}, a second I \textit{have cold}, and a third \textit{It is cold to me}, these expressions differ semantically even though they refer to the same experience, for they employ different images to structure the same basic conceptual content" (Langacker 1987: 47). A similar example from the domain of emotions is: (i) English \textit{to be angry WITH}; (ii) French \textit{être fâché CONTRE} ('to be angry AGAINST'); (iii) Dutch \textit{boos zijn OP} ('to be angry ON').
Stimulus-participants of verbs of emotion are frequently coded by a genitive, or a dative. The genitive can be interpreted as a genitive of source, and the dative can be taken as either a dative of cause (in the case of inanimate entities), or as an experiencer-dative (animate entities). For example, the oblique objects of κῆδομαι + gen. 'worry about, care about s.o.' and ἔρωμαι + gen. 'love s.o.' can be interpreted as the sources of the respective emotions, worrying and loving. The dative of ἔδομαι + dat. 'I enjoy s.th.' can be interpreted as cause of the joy. The dative of verbs of anger, e.g. μέμφομαι + dat. 'be angry with, rebuke s.o.', ὄργεζομαι + dat. 'be angry with s.o.' can be considered a dative of cause, as well. Alternatively, the dative might be interpreted as an experiencer-dative. In that case, the animate object of the anger can be viewed as mentally involved in the anger. Especially μέμφομαι + dat. can be analyzed in this way since the verb can also involve verbal activity on the part of the subject (i.e. 'rebuke') that is directed to the dative-participant.

As has been stated above, I assume that the different case-markings highlight different aspects of the mental event. The genitive of source and the dative of cause can be thought of as highlighting the Initiator-aspect of the stimulus, and thereby the causal chain which runs from stimulus-object (viewed as a source or cause) to the experiencer-subject. This case-marking strategy is in harmony with the middle-marking of these verbs. Since the middle-marking expresses that the subject is affected, the causal chain from stimulus to experiencer-subject is highlighted. For example, in the case of ἔρωμαι + gen.,


107 The use of the dative of cause with animate entities is an extension of the prototypical use of the dative of cause with inanimate entities. This extension can be explained by form of metonymy. In expressions like ἔδομαι σοί 'I am delighted at you', the dative-participant metonymically stands for his activities, which are the actual cause of the delight that is felt by the subject-participant.

108 This dative, then, is not the successor of the Indo-European instrumental case, but of the PIE dative. The fact that also in Sanskrit, some verbs of anger are construed with a dative (instead of an instrumental) may confirm this point, e.g. Skt. krudh- 'be angry with' and hr- (hrṇīte) 'be angry with'.

109 Note that many mental process verbs can be construed with more than one case. For example, μέμφομαι occurs with the genitive, dative, and accusative case; πείθομαι occurs with both genitive and dative. Moreover, most mental verbs can occur with prepositional phrase (for a study of these alternations, see Moreux 1978). This variety of constructions is a strong indication that the speaker has several ways at his disposal to describe the scene. It all depends on the way the scene is construed by the speaker, which facets he prefers to highlight, and which facets are backgrounded. Consider, for example, μέμφομαι 'be angry with, rebuke'. The accusative-object can be both animate and inanimate, and it expresses about whom or what one is angry. Further, there is a tendency for animates to be marked by the dative, and for inanimates to be marked by the genitive. For instance (animate dative), Ἀρπάγος (…) μεμφόμενος (Hdt. 1.117.1) [Astyages is furious with Harpagus because he did not kill Astyages' grand-son]; (inanimate genitive) τυμίας ἐμπύθη (E. Hipp. 1402) [Phaedra is angry about the slight to her honour]. Probably animate participants more often take the dative since the experiencer-dative implies that the participant is mentally involved, whereas the genitive merely expresses the source of the anger (genitive of source). Similarly, Homeric χολόμαι + gen. [things or persons] 'be angry about', or + dat. [only persons] 'be angry with'.

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both the middle inflection and the genitive case express that there is a (metaphorical) transmission of force from the stimulus to the affected subject.¹¹₀

A number of middle verbs of emotion, however, occur with an accusative-object, e.g. φοβέομαι, οἰδέομαι (see Kühner-Gerth, I: 298-9). The accusative-marking with this type of verb clearly does not have its prototypical function, since objects of these verbs are not patients.¹¹¹ I assume, however, that the accusative does have a semantic contribution in that it imposes a certain image on the scene that is described by highlighting a particular facet of the scene at the cost of others. Consequently, I would suggest that the accusative case emphasizes the Endpoint-aspect of the stimulus-participant, thereby highlighting the causal chain from the experiencer-subject towards the stimulus-object. In this fashion, the rather abstract concept of the mental event is structured as an analog of the more concrete concept of the prototypical transitive event. As was set out in section 1.1.2, the prototypical transitive involves a physical energy transmission from an initiating animate subject to an affected object. A relation of a mental kind, however, such as ‘A fears B’ does not involve a physical transmission of energy, nor does it entail any affectedness of the object. This extension - from the prototypical transitive event to the mental event - is of a metaphorical kind. Its motivation can be found in the abstract commonality that is inherent in both types of events. On the one hand, we see the transmission of energy from an active Initiator (the agent) to a passive Endpoint (the patient), and on the other hand, there is the concept of a metaphorical mental path leading from a more active conscious participant (an experiencer) to a more passive object-participant (the stimulus).¹¹² Furthermore, the fact that mental events are coded as transitive might also be motivated by the active involvement of the subject in the event. For example, in the semantics of φοβέομαι ‘flee in panic (Hom.), fear’, it can be seen that the

¹¹₀ In this connection, it is interesting to compare ἔρομαι + gen. ‘love’ with the near-synonymous active transitive φιλέω + acc. ‘love’. In the case of the latter, both the active voice and the accusative-case of the object contribute in expressing that there is a (metaphorical) transmission from the subject towards the object, i.e., it shows the reversed state of affairs as compared to ἔρομαι + gen. Indeed this different construal is manifested by their respective uses. ἔρομαι typically refers to a feeling of sexual desire which is apparently conceived of as originating from the object of desire. Φιλέω refers more generally to the feeling of affection towards someone, and it very often refers more specifically to the acts one performs as a token of one’s affection. Thus, φιλέω can have the meaning ‘treat affectionately, cherish’ (e.g. when entertaining a guest) or ‘kiss’. In sum, the subject of φιλέω can be viewed as an agent, and its object as a patient. In the case of ἔρομαι, it is the subject that is the most affected, whereas in the case of φιλέω the object is seen as the most affected participant. This analysis of the two verbs and their constructions is similar to that of the ancient grammarian Apollonius Dyscolus (Synt. 418-9 Uhlig; see Lallot, 1997, I: 263, II: 262-3).

¹¹¹ Apollonius Dyscolus notices the unusualness of non-energetic verbs (οἴδεμαι ὅντα ἑνεργείας) that are construed with an accusative-complement. He explains this type of accusative by means of an ellipse of διά ( + acc.). Apollonius’ explanation shows, in my view, that he conceives the object-participant as a cause-like partipant, regardless of its accusative case.

¹¹² The verbs of emotion with an accusative object can be compared to the verbs of seeing (e.g. ὀρθεῖν + acc.) that also involve a metaphorical path from perceive to perceived object (see section 2.1.8). An alternative explanation for the accusative-marking of the stimulus would be to ascribe the accusative marking to a more general similarity of the stimulus-participant to a direct object, instead of taking the stimulus as an endpoint in a metaphorical source-path-goal configuration. The accusative, then, marks that the stimulus is viewed as the most salient participant after the subject (see Langacker 1991: 240).
physical action of turning to flight (cf. also φεύγω + acc. ‘flee’) is closely associated with the emotion of fear.

The double causal relationship that is inherent in the conception of mental events (see Fig. 1) is also manifest when they are construed with prepositional objects. Many verbs in Greek can be construed both with complements in ‘pure’ cases and with prepositional objects. The semantic difference between these strategies is probably that the prepositional variant evokes a more concrete, ‘plastic’ imagery. For example, besides φοβεῖομαι with an accusative, we also find - albeit marginally - constructions with prepositions:

(14) a. Δίδαξον, εἰ διδακτόν, εξ ὧτου φοβή (S. Tr. 671)
   Explain, if you can, the cause of your fear.

   b. ἦτοι πρὸς ἀνδρός ἤ τέκνων φοβομένη (S. Tr. 150)
   (...) feeling fear on the account of husband and children.

The prepositions ἐκ and πρὸς + gen. express the source of the fear, not the entity that is feared itself. Through the use of prepositions, the image of a concrete spatial source is evoked, and the causal chain from source to experiencer-subject is highlighted. On the other hand, consider the following constructions:

(15) a. Σὺ δ’ εἰς τὰ μητρὸς μὴ φοβοῦ νυμφεύματα (S. OT 980)
   Have no fears in the direction of a marriage with your mother.

   b. ἄλλα’ εἰ φοβή πρὸς τοῦτο, (...) (S. Tr. 1211)
   But if you have fears with respect to that, (...).

In example (a.), the marriage with his mother is, of course, the entity that is feared in a direct way by Oedipus. It is not merely the source of his fear. The meaning of this construction is, subsequently, similar to one with a pure accusative. The difference is that the direction of his anxious thoughts is referred to in a more concrete way by means of εἰς ‘toward’. In a similar fashion, in (b.) the phrase πρὸς τοῦτο seems to convey the image of the mind directed towards the object of fear (in this case, Hyllus is frightened by the idea of having to set Heracles on fire).

In this section, I have described the mental process middle type. Additionally, the relation of the intransitive middles denoting mental processes with their transitive active counterparts was discussed. Finally, a model was proposed to account for the various case constructions that the mental process verbs occur with. It was argued that the notions of construal and imagery are of crucial importance to the semantic structure of mental events.

2.1.4 Body Motion Middle

Body motion involves an animate entity that volitionally brings about a change of state to himself. Thus, the subject is both agent and patient. This change of state typically

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113 The body motion type is semantically middle (as opposed to active and passive) since the subject is both the initiating entity (Initiator) and the affected entity (Endpoint).
consists of either a change of location or a change in body posture. Many middles that designate body motion have a transitive causative counterpart. Examples of middles of motion are:

**Nontranslational motion**

\[
\begin{align*}
(\text{άπ-})\text{-ξομαι} & + \text{gen.} \ '\text{keep oneself back from}' \\
\text{στρέφομαι} & \ '\text{turn around (intr.)}' \\
\text{τάνυματ} & \ '\text{stretch oneself out}' \\
\text{τείνομαι} & \ '\text{stretch oneself out}' \\
\text{τρέπομαι} & \ '\text{turn (intr.)}'
\end{align*}
\]

\[
\begin{align*}
(\text{άπ-})\text{-ξω} & + \text{gen.} \ '\text{keep s.o. away from}' \\
\text{στρέφω} & \ '\text{turn around (trans.)}' \\
\text{τανώ} & \ '\text{stretch out}' \\
\text{τείνω} & \ '\text{stretch out}' \\
\text{τρέπω} & \ '\text{turn}'
\end{align*}
\]

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114 In ch. 5, I will argue that a tendency can be discerned for middle verbs of motion to designate change of body posture and non-translational motion, whereas active verbs of motion tend to designate manner of motion verbs. This tendency may be explained by the fact that in the case of manner of motion verbs the element of change is deemphasized to a certain degree. Therefore, the subject is conceived of as less affected by the motion.

115 **Translational motion** is motion along one dimension in space; **non-translational motion** is motion that is neither translational, nor change in body posture (see Kemmer 1993: 67-70). Note, further, that almost all body motion verbs, at least in Classical Greek, have a root, thematic or passive aorist form. Only a few middle-only verbs have a sigmatic middle aorist, e.g. ἀλλοματ - ἰλαμαν, χάζω - ἐχασάμην. However, both ἀλλοματ and χάζω have a poetical and archaic ring. For ἀλλοματ, this point will be made in ch. 5. I will return to aorist morphology extensively in ch. 3. There is also a considerable number of activa tantum that designate body motion, for instance, βαίνω 'make a step, go', ἐμί 'go', ἔρχον 'creep, go', τρέχον 'run'. In chapter 5, it will be argued that there is a semantic difference between active and middle verbs of body motion.

116 It is interesting to note that many verbs of motion have a metaphorical mental meaning, e.g., ἀπέχωμα 'keep oneself back from' > 'abstain from'; ἱματ 'speed' > 'desire'; ὁρέγομα 'stretch oneself out' > 'yearn for'; ὁρμάμα 'start off' > 'be eager'; στρέφω 'speed' > 'be eager'; τρέπομαι 'turn' > 'change one's mind'; φοβέομαι 'flee' > 'be afraid'. Mental processes are understood as physical motions. Notice also the etymology of the word e-motion and the figurative sense of 'be moved'.

117 The difference between τάνυματ/τείνομαι and ὁρέγομα is that the latter is restricted to the arms, whereas the two former verbs involve the entire body.
Change in body posture

*ίσταμαι 'stand still, stand up'
(καθ' ιζομαι 'take one's seat, sit down')
κλίνομαι 'lean'

*ίστημι 'set up, raise, make to stand'
(καθ' ιζο 'make to sit down')
κλίνω 'cause to lean'

Translational motion

*ἀνάγομαι 'put out to sea, set sail'
*ἀπαλλάττομαι 'depart from'
κοιμίζομαι 'travel'
δρόμομαι 'start off'
πορεύομαι 'go, walk'
σεύσωμαι 'rush, speed' (Hom./poetry)
στέλλομαι 'set out, journey'
σφάζομαι 'get back safe, escape'

*άφω 'raise'
*ἀνάγω 'lead up to sea'
*ἀπαλλάττω 'free s.o. off s.th., remove'
κοιμίζω 'carry, bring'
δρόμω 'set in motion'
πορεύο 'make to go'
σεύσω 'set in swift motion'
στέλλω 'make ready, send'
σφάζω 'save'

118 The verb (καθ' ιζομαι synchronically functions as a perfect to (καθ' ιζομαι. There are more middles that serve as suppletive perfects: είμαι (perfect of έννυμαι 'clothe oneself, be clothed'), κείμαι (perfect of τίθεμαι 'be set'), and κρέμομαι (perfect of κρεμάννωμαι 'be hung'). From a synchronical point of view, the middle endings of these verbs express the affectedness the subject previously underwent - as a result of which the subject is in a certain state (cf. the stative-confactive meaning of the Greek perfect). Historically, these verbs are relics of the PIE verbal category stative (for the PIE stative, see Narten 1968, Rix 1977, 1988, Oettinger 1976, 1993, Beekes 1995: 244). Other relics of this category in Greek are δέκατο (Hom.) 'seem', δέχομαι 'await' (Hom.), στείρω 'boast'. Possibly also ἔφαμα 'be in love', ἔχομαι 'be shut in', εύκτο (Thebais Fr. 3.3) 'pray, boast', ἔνομα 'blame', and πέτομαι 'fly'. Middles belonging to this category can be recognized by the e-vocalism in the stem, and their (originally) stative semantics.

119 In Homer, the active ιζω often has its original intransitive meaning 'sit down'. 'Ιζω acquired its causative meaning after the emergence of the middle form ιζομαι 'sit down', which was created by analogy with middle forms such as aorist Εξετω 'sat down' and 'perfect' ήμαι 'be seated'.

120 This middle started off as an elliptical indirect reflexive middle ἀνάγομαι τὴν ναῦν 'lead the ship up to the high sea' (e.g. Hdt. 6.12.1), but it was subsequently reinterpreted as an intransitive which, in turn, led to a replacement of the older aorist ἄνηγαγόμην by the passive aorist form ἄνηγαγη (e.g. Hdt. 3.137.5).

121 The middle ἀπαλλάττομαι does not correspond to the typical meaning of the active ἀπαλλάττω + acc. + gen. 'free s.o. of s.th.'. I am aware of only one instance of the active with the meaning 'make s.o. go away from s.th.', this being the true semantic counterpart to the middle 'go away from': (...) ἐκέλευ(...) τοὺς Πελοποννησίους ἀπαλλάξας ἐκ τῆς χώρας (Th. 8.46.4) ('He urged [him] to remove the Peloponnesians from this country').
The label *body motion middle* is used in this study because it is the most specific of the whole array of terms that is encountered in the literature. The term *endoreflexive* used (and coined?) by Haspelmath (1987) is also attractive, as it underpins the close relationship the body motion middle has with the semantics of *reflexivity*. On the other hand, it also reveals the crucial property that *distinguishes* it from the typical direct reflexive (type *shave oneself*), that is, *internality* (cf. the prefix *endo-*). By a number of scholars, the term *pseudo-reflexive* is employed (e.g. Dik 1983 [on reflexive verbs in modern European languages], Risselada 1987 [on Greek], Rijksbaron 1994 [on Greek]). For Greek, I find this term inadequate because it suggests that this middle type is somehow secondary to the ‘true’ (direct) reflexive (see section 2.1.7). This, however, seems unjustified, considering that the body motion middle has a considerably higher text-frequency than the direct reflexive middle (for frequency-figures, see section 2.3.2). Furthermore, the term *body motion middle* is attractive since it is specific and self-explanatory, unlike some of the aforementioned terms.

Body motion verbs are typically volitional. However, many body motion verbs can also be used non-volitionally. An example is the intransitive middle *κινέω* that can

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122 The medium tantum ἐκομενι 'follow' may also be considered a body motion verb. C.J. Ruijgh pointed out to me (pers. comm.) that the verb might have had a causative active counterpart, like many other body motion middles. On one of the new Mycenaean tablets from Thebes (Fq 254+255.1), a form *α-πι-ε-γε* can be found, which can be read as active *απιε-εκιεν* 'make s.o. follow'. ἐκομενι is a very old medium tantum, cf. Skt. *साक्ते* 'accompany', Lat. *sequor* 'follow'.

123 The different distributions of ἐλλομαι and its synonym πηδεω are investigated in ch. 5.

124 Probably an ancient medium tantum, cf. Skt. *नासते* 'join, unite'.

125 Often, οὐχομαι is used in a perfect-like sense 'be gone, be away'.

126 An active causative ἀνα-χεω 'make to recoil' occurs once at Pi. N. 10.49; the simple active is found in Hesychius. The old (Homeric) causative formation was ἐκκάδω (with irregular -κ-).

127 A marginal class of media tantum that is related to the middle verbs of body motion are the verbs that designate physical functions such as ἐρέγωμαι 'spit, disgorge, belch', πέρνομαι 'break wind', πτόρυμαι 'sneeze', χρηστομαι 'cough, clear one's throat', χασμόμαι 'yawn'. These verbs are semantically similar to the body motion verbs in that they also involve, to some extent, a movement of the body. The difference is that the verbs of body motion are completely volitional, whereas the middles of physical actions are often induced by an internal or external physical stimulus. Therefore, although the subject performs the action, it is not a prototypical agent. Another difference between these verbs and the typical body motion middles is that the former do not involve a change of state, or more specifically, there is no change of location or body posture. There are also a number of active verbs belonging to this semantic class, e.g., βδέω 'break wind', βυτιτο 'cough', ᾑμεω 'vomit', ὀψιμω 'make water', οὐρέω 'make water', πταῖρω 'sneeze' (secondarily after aorist ἐκταρνω, cf. πτάρνυμαι), πτώω 'spit, throw up', χάσκω 'yawn', χεξω 'ease oneself'.
have an animate subject (someone moving volitionally) as well as an inanimate subject (something moving spontaneously). For example,

(16) [The Greeks] (...) oĩ de ὡς ἐκκινήθησαν, ἔφευγον ἁμενοι τὴν ἵππον πρὸς τὴν Πλαταιῶν πόλιν, (...) (Hdt. 9.52)
(...) and once they moved, they fled gladly from the cavalry to the city of the Plataeans, (...)

(17) [The island Chemmis] (...) λέγεται δὲ ὑπ' Αἴγυπτιῶν εἶναι αὐτὴ ἡ νήσος πλωτὴ. αὐτὸς μὲν ἔγογγε οὔτε πλέουσαν οὔτε κινθείσαν εἶδον, (...) (Hdt. 2.156.2)
(...) and it is said by the Egyptians that this island floats. I myself have not seen it float nor move, (...)

These examples make clear that the body motion middle is related to the spontaneous process middle.

Before I proceed to the next middle use, I wish devote some space to a rather peripheral but interesting member of the body motion class. This construction-type is exemplified by the following Homeric lines:

(18) ἄμφοτέρησι δὲ χειραῖν ἐπεσυμένος λάβε πέτρης, τῆς ἔχετο στενόχον, (...) (e 428-9)
On he rushed and seized the rock with both hands, and clung to it, groaning, (...)

(19) ἀλλὰ μεθορμηθεὶς ἐνὶ κύμασιν ἐλλαβέτ' αὐτῆς [= σχεδίης] (e 325)
(...) but lunged after it amid the waves, and laid hold of it [= the raft].

Normally, active ἔχω and λαμβάνω govern the accusative, marking the direct object. This direct object is a patient in that the agent-subject exercises complete power over it. In the examples above, however, ἔχω and λαμβάνω have genitival complement. The verb may be active as well as middle, e.g. (active) λάβε πέτρης (e 428), and (middle) ἐλλαβέτ' αὐτῆς (e 325). In this construction, the complement is not a patient, since the subject does not exercise complete power over it. The genitive case expresses that the agent-subject can only take hold of a part of the object (partitive genitive). The fact that both the active and the middle form occur in this genitive construction, is an indication of the unmarkedness of the active (see section 1.1.4), i.e., the active form can often be used when the affectedness of the subject is inferable from the context.128 Now the question remains as to what is the semantic contribution of the middle voice in this type of construction. In the construction at issue, the subject undergoes the major effect of the event. It is the subject that, by performing the action, becomes steady and stabilized, as opposed to the active

128 Notice that the construction of ἔχουμαι + gen. in the sense 'take hold of' must be sharply distinguished from the construction of ἔχουμαι + gen. that means quite the opposite 'keep oneself back from', e.g.: αὐτοὶ μὲν ἐχώμεθα διηπτήσαντες ἐκ βελάνων (Ξ 129) ("Then we will keep ourselves back from the fight, beyond the range of missiles"). The latter construction is an instance of the body motion middle, which can also be concluded from the existence of a causative active construction (e.g. B 275, N 687). ἔχουμαι + gen. in the sense 'be next to' has probably developed from the meaning 'take hold of'.
construction with an accusative object. Thus, the subject may be considered a (albeit somewhat untypical) patient.\textsuperscript{129}

\subsection*{2.1.5 Collective Motion Middle}

This middle usage type concerns verbs that designate motion types that are naturally and necessarily performed by groups of (typically animate) individuals, namely gathering and dispersing. Examples are:

\begin{enumerate}
\item[(20)] \scriptsize \textit{πυθόμενοι δὲ ὁ Κάρης συνελέγοντο ἐπὶ Λευκᾶς τε στήλας καλεομένας καὶ ποταμῶν Μαρσύην (...) (Hdt. 5.118.1)}
And when the Carians heard this, they assembled at the place called the White Pillars, by the river Marsyas (...)
\item[(21)] \scriptsize \textit{ἥς τῶν μισγαμένων γένετο ίαχῆ τε πόνος τε (Δ 456)}
So from them, while they were joining in battle, came shouting and toiling.
\end{enumerate}

The active transitive counterpart of the collective motion middle - like that of the body motion middles and the spontaneous process middles - has causative meaning. Examples are:\textsuperscript{130}

\begin{tabular}{ll}
\textit{ἀλίξομαι} ‘gather (intr.)’ & \textit{ἀλίξω} ‘gather (trans.)’
\textit{ἀγείρομαι} ‘gather (intr.)’ & \textit{ἀγείρω} ‘gather (trans.)’
\textit{ἀθροίζομαι} ‘gather (intr.)’ & \textit{ἀθροίζω} ‘gather (trans.)’
\textit{ἀκολλέξομαι} ‘gather (intr.)’ & \textit{ἀκολλέξω} ‘gather (trans.)’
\textit{λόσιμαι} ‘dissolve (intr.)’ & \textit{λῶς} ‘dissolve (trans.)’
\textit{μίσγαμαι} ‘mingle (intr.)’ & \textit{μίσγω} ‘mingle (trans.)’
\textit{σκίδναμαι} ‘disperse (intr.)’ & \textit{σκίδνημι} ‘disperse (trans.)’
\textit{(συλ)λέγομαι} ‘gather (intr.)’ & \textit{(συλ)λέγω} ‘gather (trans.)’
\end{tabular}

\textsuperscript{129} This type of reflexive, mainly occurring with verbs of holding and grasping, is also known from modern languages that have reflexive systems. Compare, for instance, German \textit{den Stuhl festhalten} vs. \textit{sich am Stuhl festhalten}. The Russian counterpart of this construction is called \textit{consequential reflexive} by Gerritsen (1990: 88ff.). Note further that in German, as in Greek, the construction does not govern a direct object (cf. \textit{am Stuhl}).

\textsuperscript{130} I notice in passing that all middles of collective motion have passive aorist forms in Classical Greek. To this matter I will return in ch. 3.

\textsuperscript{131} E.g.: \textit{λῦντο δ’ ἁγών (Ω 1)}. Obviously, this is a metaphorical extension of the physiological meaning ‘dissolve’ (spontaneous process middle).

\textsuperscript{132} Μίσγαμαι is often construed with a dative-complement, e.g., \textit{Τυδείδης δ’ ἔξαης ιῶν πρωμάχωσιν ἐμίχθη (Ε 134)} (‘The son of Tydeus returned again and mingled with the foremost fighters’). The semantic difference between the construction with dative and the construction without dative is that, in the former case, there is an asymmetrical relationship between the participants involved. In the construction with dative, one individual is singled out as the subject-referent. The dative case can be explained as a comitative dative (see Schwyzer, II: 160), cf. English \textit{mingle with, meet with}. This type of construction is a departure of the collective motion middle since it may involve only one moving participant. However, it still resembles the typical collective motion middle in that it necessarily involves more than one individual.
Unlike the reciprocal event type (see next section), the participating individuals do not direct the action towards one another. Nevertheless, the collective motion type has in common with the reciprocal middle that the action can only take place by virtue of the individuals behaving in an identical and joint fashion. The difference between them is that in the reciprocal event micro-events are distinguishable to a certain degree: A acts on B as B acts on A. Collective motion cannot be analyzed into distinct micro-events: the entities involved necessarily act as an inseparable collective. A further difference is that a collective motion event involves a change of state of the subject: a number of separate individuals turns into a unified collective, or vice versa.\footnote{Because of their similarity, Kemmer (1993: 123-5) treats the naturally collective event type as a subtype of the reciprocal situation type (in her chapter 4.1).}

The subject of a collective motion is an agent since it initiates and performs the action. Yet, with respect to \textit{volition} the collective subject ranks lower than the subject of individual motion, since the actions of the individual participants in a collective motion event are not conceived of as separate actions. The collective event is viewed as a single action carried out jointly by a group of individuals, in which the individuals are completely dependent on one another if the action is to succeed. Clearly, the volition of such a collective is restricted as it cannot simply 'make up its mind' to carry out an action. Accordingly, collective motion events can, to some extent, be conceived of as processes which take place spontaneously. As a result, semantically, the collective motion middle is located in a continuum between the (individual) \textit{body motion middle} (section 2.1.4) and the \textit{spontaneous process middle} (2.1.2)\footnote{Manney treats the collective type as a subtype of spontaneous changes of state (2000: 175).}.

The collective motion middle is also related to the passive (2.1.1). In both types, the subject undergoes the effect of the event, and is thus a patient. The difference between the two types is the degree in which the subject can be regarded as the Initiator of the event. However, in many cases it is unclear or irrelevant who or what is the initiating entity. For example,

\begin{quote}
(22) \textit{λῦτο δ' ἀγών, λαοὶ δὲ θοᾶς ἐπὶ νῆας ἔκαστοι ἔσκιδναντ' ἵνα (Ω 1-2)}

Then the assembly was broken up/broke up, and the men scattered, each man to go to his own ship.
\end{quote}

The verb \textit{λῦτο} can both be interpreted as a collective motion\footnote{Note that also ἐσκίδναντ 'they scattered' denotes a collective motion.} and as a true passive 'be broken up' since, in epic at least, assemblies are normally broken up by the leader. This is shown by a parallel in the active voice:

\begin{quote}
(23) \textit{ἀύσεν δ' ἀγορὴν οἰψηρήν. οἱ μὲν ἄρ' ἐσκίδναντο, ἡδ' ἀριστομοι ἔκαστος (β 257-8)}

And he broke up the assembly, brief as it was. They then scattered, each one to his own house; (...)
\end{quote}

In the case of \textit{λῦτο} at Ω 1, the role of the leader - probably Agamemnon -, and his order to break up the assembly remain completely implicit. If, however, we interpret \textit{λῦτο} as a collective motion, the participants themselves are viewed as taking the initiative to break
up the assembly. Of course, this difference in interpretation is very important to the overall interpretation of the narrative. What is relevant to the story is the fact that the assembly broke up, not who did it. This example shows, however, that the difference between passive middle and intransitive collective motion middle is a matter of degree, depending on the saliency of the role of the leader of the collective. The more salient the role of the leader as an Initiator is, the more we are entitled to regard the verb as passive.

2.1.6 Reciprocal Middle

According to Lichtenberk (1985: 21), reciprocal events involve contexts in which "there are two participants, A and B, and the relation in which A stands to B is the same as that in which B stands to A". In Greek, reciprocal middle verbs are rare. All reciprocal middle verbs denote natural reciprocal events, that is to say, events that normally involve more than one participant acting on each other. Most reciprocal middle verbs are media tantum, and, for the lion's share, they relate to events that have to do with contending. Conversely, events that are normally not performed in a reciprocal configuration are expressed by an active verb and the reciprocal pronoun ἄλληλος. This phenomenon is analogous to the use of the direct reflexive middle vs. the reflexive pronoun (see section 2.1.7).

The first type of reciprocal middle verbs I will discuss concerns the reciprocal verbs that have one argument. For example,

ἀγωνίζομαι 'contend, fight'
ἀκροβολίζομαι 'fight with missiles'
δηρίζομαι/δηριάωμαι (Hom.) 'contend'

A typical example is the following:

(24) καὶ τὰ μὲν στρατόπεδα ἁμφότερα οὕτως ἡγονίσατο (Hdt. 1.76.4)
So hard did the two armies fight.

The two armies are viewed as one holistic referential entity both initiating and performing the action (agent) and undergoing the action (patient).

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136 The reciprocal middle is semantically middle as the subject is both Initiator and Endpoint of the event. Reciprocals are semantically related to reflexives. In both types the subject (typically animate entities) performs the same action as it undergoes; the subject is both Initiator and Endpoint. The difference between the reciprocal middle and the direct reflexive middle is that the former involves a second participating entity, while the latter does not. The semantic similarity between reflexives and reciprocals is manifested by the fact that they are formally marked alike in many languages, as in French ils se regardent. This utterance is interpretable as 'they look at themselves' and as 'they look at each other'. Langacker (1991a: 370) puts it in these words: "What motivates se's extension from reflexive to reciprocal use is the shared conception of the same participant (necessarily plural in the case of reciprocals) functioning as both the head and the tail of an action chain or its analog." The relationship between reflexives and reciprocals across languages is discussed in several papers collected in Frajzyngier & Curl (2000a).
The second type of reciprocal concerns two-participant verbs. The individual entities involved are not fused into one subject-participant, but are expressed by separate constituents. In Greek the second argument has the dative-case. Examples are:

- ὀμιλλάμοια (+ dat.) 'contend with'
- διακοντίζομαι (+ dat.) 'contend with others at throwing the javelin'
- διαλέγομαι (+ dat.) 'converse with'
- ἐρίζωμαι (+ dat.) 'strive, quarrel with' (Hom.)
- μάχομαι (+ dat.) 'fight, contend with' (Hom./poetry)
- μάχομαι (+ dat.) 'fight, quarrel with'
- πληκτίζωμαι (+ dat.) 'exchange blows with' (e.g. Φ 499)
- ὀστίζομαι (+ dat.) 'push s.o. and be pushed'

An example in context:

(25) Ὀία ποιεῖμεν, ἄνδρες Σκύθαι. δούλοισι τοῖσι ἴμμετέροισι μαχόμενοι (...) (Hdt. 4.3.3)

Men of Scythia, what are we doing? While we are fighting with our own slaves (...).

The two reciprocal types mentioned above (with and without dative complement) involve a different conceptualization of the event. When the entities are coded as one participant (i.e. the subject), the individual entities involved are viewed as a single holistic entity (cf. the cats in The cats fight). The event itself is conceived of as a cluster of symmetrical causal relationships. No prominence is given to either of the micro-events, i.e. individual A acting on B = B acting on A. The construction with a dative-complement, however, presents the subject-participant as being the most prominent participant (generally the discourse topic), and, as a consequence, the outgoing causal chain from subject to dative is highlighted. Consider the clause The cat fights with the dog. The incoming causal chain, the fighting of the dog which affects the cat, is somewhat

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137 Kühner-Gerth (I: 432) and Schwyzner (II: 161) treat the dative with verbs of fighting as a subtype of the comitative dative. The dative may also express that the participant has the semantic role experient in the sense as it is used by Langacker. According to Langacker the experient role has a dual nature. In some expressions the experiencer only passively registers sensations. However, there are also expressions in which the experiencer can be attributed some kind of initiative role (Langacker 1991a: 327-9, 2000: 31). In the same way, the dative participant with verbs of fighting has a dual character. On the one hand, s/he registers the acts of violence performed by the subject; on the other hand, s/he is actively involved in that s/he reciprocates these acts of violence. Interestingly, Apollonius seems to give a similar analysis of the meaning of the dative-case with verbs of fighting. He explains the occurrence of the dative by the idea that the dative-participant, like the subject-participant, is both actively and passively involved in the action (A.D. Synt. 428 Uhlig; Lallo 1994; Lallo 1997, I: 267).

138 Simplex ἄκοντιζω 'hurl a javelin' is always active. The preposition δια- contributes a sense of dividedness and mutuality. Compare also δια-λέγομαι 'converse' and λέγο 'speak'.

139 Unlike the other reciprocal verbs διαλέγομαι has a passive aorist form, διελέχθησαν. In section 3.2.3.3, I will make an attempt to explain this rather remarkable form.

140 The active ἐρίζω has the same meaning, and occurs more frequently. Possibly, the active presents the event as a neutral activity 'make ἐριζό', while the middle profiles the reciprocal facet.
backgrounded. In Greek, the incoming action chain is, however, explicitly coded by means of the middle inflection of the verb.\footnote{With semantically related verbs like ἑρίζω 'quarrel', νεικέω 'quarrel', πολέμεω 'quarrel', and παλαίω 'wrestle', which can also have a dative complement, the reciprocity is not coded grammatically, and, as a consequence, deemphasized, e.g. παλαίων Φιλομηλείδη ('I am wrestling with the son of Philomeleus'). It is, however, still an inherent facet of the lexical semantics of the verb. If the speaker wishes to present the event as symmetrical, the construction with the reciprocal pronoun (in the dative) must be used, e.g. παλαίωσιν ἀλλήλοις ('they are wrestling with each other').}

As was said before, the reciprocal middles are typically verbs of fighting, and most of them are media tantum. However, there appear to be sporadic cases of middle verbs with reciprocal meaning that correspond to non-reciprocal active verbs. An interesting example is:

(26) ἀντὶ γὰρ τοῦ προσαγορεύειν ἀλλήλους φιλέονταί τοίς στόμασι, ἡν δὲ ὦστερος ὑποδεέστερος ὀλίγω, τάς παρείς ἠλέονται (...). (Hdt. I.134.1)

Instead of greeting, they kiss one another on the mouth. If one of the two is a little humbler, they kiss on the cheek.

Remarkably, Herodotus first uses the expected construction of the active verb φιλέω 'kiss' with the reciprocal pronoun ἀλλήλους, but in the next clause the middle φιλέονται is used, apparently with a reciprocal meaning (the accusative τάς παρείς must be taken as an accusative of the body part affected). The use of the middle form to express a reciprocal meaning is possible here because a direct reflexive interpretation is precluded: kissing, like fighting, is not an activity one usually performs on oneself.\footnote{Besides the reciprocal pronoun, the reflexive pronoun can also be used with a reciprocal meaning (see K-G, I: 573-5). The reflexive pronoun is preferred in cases where there is a contrast with a third group of individuals, e.g. φθονοῦντες ἐκαυτοῖς μᾶλλον ἢ τοῖς ἄλλοις ἀνθρώποις (Xen. Mem. 3.5.16) ('they are more envious and bitter against one another than against the rest of the world'). But often the reflexive pronoun seems to be used merely for the sake of variation, e.g. φθονοῦντες ἑαυτοῖς μισοῦσιν ἀλλήλους (Xen. Mem. 2.6.20) ('envying each other, they hate one another').}

Another case of a reciprocal middle verb in opposition to a non-reciprocal active is ἀμειβομαι in Homer. For example,

(27) οἱ μὲν ἀμειβόμενοι φυλακάς ἔχον (I 471)

They kept watch alternating with one another.

Consider further formulas such as αὐτὰρ ἐγώ μιν ἀμειβόμενος προσεῖτον. These middle verbs cannot be interpreted as passives, since their subjects are actively involved. The active ἀμείβω means 'exchange s.th.'; the reciprocal middle originally must have meant...
'exchange one another', i.e. 'swap over'. This meaning then developed into the idea of alternating with one another, as, for instance, in changing the guard and in answering one another (see also section 2.1.10).\footnote{Note that keeping watch in shifts may involve what Kemmer calls a \textit{chaining situation}: "a chain of paired relations in an ordered series of participants. (...) Each participant is the Initiator in one relation and the Endpoint of a second relation of the same type" (Kemmer 1993: 100). In other words, in the chaining situation A acts on B, B acts on C, and so forth, whereas in the typical reciprocal situation A acts on B and vice versa.}

2.1.7 Direct Reflexive Middle

The direct reflexive middle type involves a human agent that volitionally performs an action on him or herself.\footnote{The direct reflexive event type is semantically middle (as opposed to passive) in that the subject is both the Initiator of the action, and the Endpoint (affected entity).} Many direct reflexive middle verbs relate to grooming activities such as ‘bathing’, ‘dressing’, etc.\footnote{A difference between the direct reflexive middle and the body motion middle is that the direct reflexive middle does not denote a total physical change of state. When one shaves oneself, for instance, one’s body does not undergo a complete change of state, the affectedness is restricted to a particular zone, typically on the surface of the body. Conversely, activities like ‘stand up’, ‘move’ necessarily imply a complete change of state, or more precisely, a change of body posture or location. The direct reflexive middle καθάζομαι ‘purify oneself’ (aor. ἐκαθηράμην) may be the proverbial exception to the rule since the verb does denote a change of state (‘become καθαρὸς’). This is, however, not a very striking exception to the rule, if we consider that λούμαι, although it does not denote that the subject becomes clean, will generally imply that the subject becomes clean. Therefore, an utterance such as I \textit{washed} myself, but \textit{I did not become clean} is somewhat odd - though not impossible. Furthermore, a perfect like λειλομενός ‘be washed’ necessarily implies that the subject is clean at the moment of utterance.} The action is typically executed on the surface of the body by means of the hands. Examples of direct reflexive middles are (see also K-G, I: 103-4).\footnote{Note that all direct reflexive middle verbs have sigmatic middle aorist forms, e.g. ἐκτηράμην ‘I had a hair-cut’, ἀπηγξάμην ‘I hung myself’. I will return to the aorist morphology extensively in ch. 3. Note, further, that the active counterparts of direct reflexive middles do not have a causative meaning, as opposed to the body motion middles (ἵστημι ‘make s.o. stand’ vs. ἵστομαι ‘stand still’). Thus, λυόω does not mean ‘make s.o. wash himself’, but ‘wash s.o.’. Causation is expressed by the construction of ποτέω with an infinitive, e.g., ἀπόγχοισθαι μὲ ποτεῖς (Theocr. 3.9) (‘Thou’ll make me hang myself’). The same point is made by Rijksbaron (1994: 151n1).}

\textbf{Grooming}

κείρομαι ‘cut off one’s hair, have a hair-cut’
λούμαι ‘bathe oneself’
ἀλεξίρομαι ‘anoint oneself’
ἀπομύτωμαι ‘blow one’s nose’
ἀποψώκομαι ‘wipe one’s nose’
ἔννυμαι ‘dress oneself’
ζωόννυμαι ‘gird oneself’
κοσμούμαι ‘adorn oneself’
νίζομαι 'wash one's hands/feet'
ξυρούμαι 'shave oneself'

**Other types of direct reflexive actions:**
The verbs listed provide actions that are normally performed on oneself.

- ἀπάγχωμαι 'hang oneself'
- γυμνάζομαι 'exercise oneself'
- δέσομαι 'masturbate'
- ἐντύνομαι 'prepare oneself'
- καλύπτομαι 'cover oneself'
- κνώμαι 'scratch oneself'
- κόπτομαι 'beat oneself'
- παρασκευάζομαι 'prepare oneself'
- στεφανόμαι 'crown oneself'
- σφάττομαι 'kill oneself'
- τύπτομαι 'beat oneself'

**Direct reflexive middle designate actions**

Direct reflexive middle designate actions that are *normally* performed on oneself. Actions that are not normally performed on oneself are coded in an active construction with a reflexive pronoun. (see also K-G, I: 111).^150

(28) ἐπιπτεῖ αὐτὸν εἰς τὴν πώλακταν (Dem. 32.6)

He throws himself into the sea.

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^147 The original meaning of active δέσω was 'make supple with the hand, knead', cf. the derivative δέσω (Hdt. 4.64.2).

^148 Cf. active plus pronoun: εὖ ἐντύνοσαν ἐ' αὐτὴν (Ξ 162) ('(...) when she had beauteously adorned herself', (...,')).

^149 As an act of mourning (likewise τύπτομαι). The frequent use of these verbs in contexts of grief eventually effected a lexical semantic shift as they gradually came to be used as actual verbs of mourning that are construed with an object of the person being mourned for (cf. ὀλοφύρομαι), e.g. τύπτομαί τινα 'I mourn for s.o.'.

^150 More examples in Gildersleeve (1900: 67-8). A look at the frequency ratios of actives vs. direct reflexives is illustrative. Δίδωμι 'give' denotes an event of which subject and object are usually not co-referential. Therefore, direct reflexivity is expressed by an active verb form and a reflexive pronoun. A quick glance in Powell's lexicon to Herodotus shows that only 20 instances (of a total of 270 active forms) of δίδωμι concern the reflexive construction with ἑαυτόν, i.e. less than 10%. Compare this figure with the ratio of active forms of ἀλείφω, ἀπάγχω, γυμνάζω, λύω, νίζω vs. direct reflexive middles of the same verbs. The following figures are based on an index search with Pandora in the TLG. I have counted the 3rd person aorist forms of the simple and compound verbs. The aorist forms are used in order to be able to filter out the passive forms: ἀπήγξε 2x (2%) vs. ἀπήγξατο 81x (98%), ἠλείψε 98x (76%) vs. ἠλείψατο 31x (24%), ἐγύμνασε 45x (78%) vs. ἐγυμνάσατο 13x (22%), ἔλουσε 24x (39%) vs. ἔλούσατο 60x (71%), ἔνιψε 53x (48%) vs. ἔνιψατο 58x (52%). It can be concluded that the direct reflexive middles occur quite frequently as compared to their active counterparts (ranging from 98% [ἀπήγξατο] to 22% [ἐγυμνάσατο]), whereas the active (pronominal) direct reflexive has a frequency of less than 10% (δίδωμι). The verb ἀπάγχωμαι 'to hang oneself' is almost a medium tantum: the - rarely occurring - active never means 'to hang s.o.', but more generally 'to strangle'. I have not taken κόπτομαι and τύπτομαι into account - of which the active forms are far more frequent than their (direct reflexive) middles - because of their highly restricted, idiomatic use 'beat oneself as a token of mourning'.
Although in the latter construction the subject-referent is affected (so in principle the middle form would be semantically possible), the middle form is not used. This is economically motivated: the speaker need not use the middle voice to express reflexivity, as this is already expressed by means of the reflexive pronoun.\textsuperscript{151} An interesting example is found in Xenophon:

\begin{quote}
(29) ἐνοι γάρ (...) προσσυνήσκοντι ὑπὸ τοῦ φόβου, οἱ μὲν ῥίπτοντες ἑαυτοὺς, οἱ δὲ ἄπαγχομενοι, οἱ δ' ἀποσφατόμενοι (Xen. Cyr. 3.1.25).
\end{quote}

Some (...) die in terror before their time - some by hurling themselves over a precipice, others by hanging themselves, others by cutting their own throats.

Here, both an active verb with a reflexive pronoun, and two middle verbs occur side by side. To explain these different strategies, Gildersleeve (1900: 64) remarks "The only middle for self-murder is ἀπάγχασθαι, to hang oneself [but what about ἀποσφατόμενοι?, RJA], which seems to have been the most natural form of suicide". This conclusion is not entirely correct. The conclusion should not be drawn from the fact that ἀπάγχομαι is a middle that, to Greeks, hanging oneself is the natural way to commit suicide, as opposed to other means (e.g. ῥίπτειν ἑαυτόν). Rather, we should infer that it is equally or more natural to hang oneself as it is to hang someone else, as it is equally or more natural to wash oneself than to wash another (λούω vs. λούμαι). Obviously, the same cannot be said of ῥίπτω ‘throw’. Indeed, this point is clearly supported by the frequency figures: the ratio active ἀπάγχοντος vs. middle ἀπάγχομαι is about 2 % vs. 98 %! (see note 150).

Likewise, σφάξομαι ‘kill oneself’ seems to be an action that is naturally performed with respect to oneself.\textsuperscript{152} The example in Herodotus (1.45.3), which was already mentioned in section 1.1.4, of the active plus reflexive pronoun is a special case:\textsuperscript{153}

\begin{quote}
(30) "Αδρηστος δὲ (...), οὗτος δὴ ὁ φονεύς μὲν τοῦ ἑαυτοῦ ἀδελφοῦ γενόμενος, φονεύς δὲ τοῦ καθήραντος, (...) ἐπίκτατοισφάξει τῷ τύμβῳ ἑαυτόν (Hdt. 1.45.3)
But Adrastus (...), he who became the slayer of his own brother and the slayer of his purifier, (...) slew himself over the grave.
\end{quote}

The fact that Adrastus kills himself is explicitly and emphatically contrasted with his killing his brother and the son of his benefactor, which was mentioned in the first part of the sentence.

Another type of context in which the active verb plus the reflexive pronoun occurs involves contrastive emphasis. Consider

\begin{quote}
\textsuperscript{151} As Kemmer puts it (1993: 235): "Don’t bother to mark semantic properties that are inherent in the event". In section 1.1.4, I have argued that the active form can be used in these reflexive contexts because the active voice is unmarked with respect to the feature of subject-affectedness.
\end{quote}

\begin{quote}
\textsuperscript{152} For a similar view, see Cock (1981: 8).
\end{quote}

\begin{quote}
\textsuperscript{153} In combination with a reflexive pronoun, the middle voice may also be used, e.g. Xen. An. 1.8.29: ἑαυτὸν ἐπισφάξασθαι. Again, the reflexive pronoun emphasizes that the subject (Artapates) slew himself, rather than that someone was ordered to slew Artapates, as was mentioned in the preceding sentence. The middle voice here redundantly expresses reflexivity (see section 1.1.4).
\end{quote}
By means of the reflexive pronoun, the patient is presented as if it were a separate entity. This makes it possible for the patient - in spite of the referential identity with the agent-subject - to be contrasted with a second, external, patient-participant.

In the direct reflexive middles (λούμαι), however, the Initiator-aspect of the subject is also, to some extent, conceptually distinguished from the Endpoint-aspect. A separation is conceived between the agent-mind of the subject, and the patient-body. This conceptual distinction of Initiator-aspect and Endpoint-aspect is facilitated by the salient outward manifestation of the action: the clearly visible activity of the hands on the body. By contrast, in the case of the body motion middles, the Initiator-aspect and the Endpoint-aspect are less clearly distinguishable. In an action such as 'sit down', the body as a whole is both performing and undergoing the event.

Above, I have discussed the differences between the direct reflexive middle, the direct reflexive active plus pronoun construction, and the body motion middle. These three construction types can be located on a scale that relates to the relative distinguishability of the agent and patient participants (see also Kemmer 1993: 73). This scale also includes the active transitive construction and the active intransitive construction. At the one extreme of the scale, the prototypical transitive is located. The prototypical transitive clause is characterized by maximal distinguishability of agent and patient, since they are clearly distinct participants referring to different entities in reality. Lower distinguishability is inherent in the pronominal direct reflexive since the two participants are coreferential. Positioned still lower on the scale is the direct reflexive middle. The distinguishability of the participants is lower because the agent and patient are fused into one participant (the subject). However, there still remains some conception of separateness of the agent and patient due to the middle inflection that codes the patient-role of the subject. At the other extreme of the scale, we find the active intransitive. In the active intransitive clause there are no agent and patient to be distinguished. One sole participant remains: the subject. This participant can be either like an agent (e.g. είμι 'I am going'), or more like a patient (ἀποθνῄσκω 'I am dying').

Interestingly, the conceptual distinguishability of participants is iconically reflected in the formal structure of the respective expressions: from a full noun that expresses the patient in the prototypical transitive expressing, via a reflexive pronoun that expresses the patient in the direct reflexive active, through an inflection that expresses the affectedness of the subject in the direct reflexive middle, and finally to the total absence of a separate patient-role in the active intransitive verb. This correlation between conceptual distinguishability and formal structure is represented in the following table:
### Table 1: Correlation between conceptual distinguishability and formal structure

<table>
<thead>
<tr>
<th>Distinguishability of patient-participant</th>
<th>Construction</th>
<th>Formal expression of patient-participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIGH</td>
<td>TRANSITIVE ACTIVE</td>
<td>FULL NOUN</td>
</tr>
<tr>
<td></td>
<td>DIRECT REFLEXIVE ACTIVE</td>
<td>PRONOUN (éauton)</td>
</tr>
<tr>
<td></td>
<td>DIRECT REFLEXIVE MIDDLE</td>
<td>INFLECTION (middle endings)</td>
</tr>
<tr>
<td></td>
<td>INTRANSITIVE ACTIVE</td>
<td>-</td>
</tr>
<tr>
<td>LOW</td>
<td>TRANSITIVE ACTIVE</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>DIRECT REFLEXIVE ACTIVE</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>DIRECT REFLEXIVE MIDDLE</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>INTRANSITIVE ACTIVE</td>
<td>-</td>
</tr>
</tbody>
</table>

The correlation between, on the one hand, the degree of conceptual separation between the two participants, and, on the other, the degree to which they are lexically or grammatically autonomous, has already been noted by Haiman (1983), Haiman (1985: 105), Langacker (1991a: 370), Croft (1990: 174), and Kemmer (1993).

The direct reflexive middle is related to the indirect reflexive middle. This is shown by the existence of a special construction that seems to occupy an intermediate position between the two middle types. This construction is exemplified by the following lines from Homer (taken from Chantraine 1963: 178):  

(32)  
(a) *νίψατο δ' αὐτὸς χείρας* (Π 230)  
He himself washed his hands.  
(b) *χρόα καλὸν ἀλευραμένη* (Ξ 175)  
After she had anointed her beautiful skin, (...)  
(c) *τεύχεα τ' ἐξεδύντο* (Γ 114)  
(...), and they took off their armour.  
(d) *κεφολήν δ' ὧ γε κόψατο χερσί* (Χ 33)  
He beat on his head with his hands.  

The middle verbs are to be interpreted as direct reflexives, i.e. *νίψατο* = 'he washed himself'. The active counterpart supports this analysis, compare:  

(33) *τῷ σὲ πόδας νίψω* (τ 376)  
Therefore I will wash your feet [lit.: I will wash you the feet]

The active verb *νίψω* takes a complex direct object, consisting of a whole (*σε*) and a part (*πόδας*). The fact that the possessor of the feet is expressed in the accusative case (i.e. as a patient/direct object) confirms the analysis that the middle is to be viewed as a direct

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155 Note that the use of the construction also extends to clothing (e.g. *τεύχεα*). After body parts, clothes are the things that are closest to the body.

156 Other examples are *καταμύξατο χείρα* (Ε 425) and δάκρυν ὁμορξάμενον (Θ 88).
reflexive, and not as an *indirect* reflexive. In that case, we would expect a construction with a dative, i.e. *σοι πόδας νίψω* (lit: 'I will wash the feet for you').

However, direct reflexives of the type *νίψωτο χείρας* resemble the indirect reflexive middle in that it is construed with an accusative (*χείρας*). Originally, this accusative-constituent was a direct object (as in the active counterpart with a double (whole-part) object above). However, the accusative may have been reanalyzed as an accusativus *respectus*, i.e. 'I wash myself with respect to the hands'. This reanalysis possibly occurred after Homer when the active construction with a double (whole-part) object had disappeared.

Besides the presence of an accusative, the direct reflexive construction of the type *νίψωτο χείρας* resembles the indirect reflexive construction in another respect. In general, the subject can be said to *benefit from* the action. In sum, although this special Homeric construction should, strictly speaking, be interpreted as a direct reflexive construction, it resembles, in some respects, the indirect reflexive.

### 2.1.8 Perception Middle

The middle of perception relates to events in which an animate subject perceives an object through one of the sensory organs. The perceiver is mentally affected by the perception. The subject can, therefore, be considered an *experiencer*. Perceptions can both volitional and non-volitional. However, it appears - as I shall argue below - that the middle perception verbs in Greek tend to express a *volitional* activity. The perceiving subject is typically actively involved in the perception. Examples are γενόμαι 'taste' and σκέπτομαι 'look at, consider'. The subject can thus be considered an *agent*. Most middle verbs of perception are media tantum, with the exception of γενόμαι that has an active causative counterpart γενίω 'make s.o. taste'. Before I continue with a discussion of the function

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157 K-G appear not to have understood this construction correctly. They give a concocted example, λαύνωται τοὺς πόδας, and render it as "ich wasche mir die Füsse". Apparently, they take this type of construction as an indirect reflexive middle, with τοὺς πόδας as a direct object. It is, however, better to interpret the accusative in this type of construction as an accusative of *respect*. Furthermore, the correct Attic form should have been contracted λαύμα, and the verb only refers to washing the whole body, while washing hands or feet is expressed by the verb ἀνέπνιζο (see Ruijgh 1991: 696). Unfortunately, due to K-G’s authority this example made its reappearance elsewhere several times, cf. Smyth 1920: 390, Schwyzer, II: 229, García Gual 1970: 25, Kemmer 1993: 1.

158 The verb φράζωμαι 'notice, consider, observe' also has a causative active φράξω 'indicate, tell'. However, φράζωμαι is not a true perception verb since it more often denotes purely cognitive activities. The medical author Galen (12.795) has an isolated causative δησφράζω 'make one smell at a thing'. Yet, there is a clear tendency for mental process middles, as opposed to perception middles, to have active causative counterparts. So we have mental processes like μιμήσκομαι 'remember' - μιμήσκω 'remind', φοβέομαι 'be afraid' - φοβέω 'frighten', etc., but only γενόμαι - γενίω. The explanation for this difference may be that it is more difficult to force a person to perceive something, than to cause someone to experience a change of mental state, since a perceiver (esp. in the case of middle perception verbs) has control of the action, and will be able to offer resistance to an external causer, whereas in the case of mental processes the experiencer is only passively involved in the event. The causer thus has more chance to succeed in his manipulation of the cause (see also Givón 2001a: 45, 48-9). Therefore, it is more likely that there is a lexicalized causative verb.
of the middle voice in the class of perception verbs, I shall dwell briefly on the various case-constructions that occur with verbs of perception.

The perceived object is can be marked by the accusative and the genitive. With verbs of seeing, the perceived object is in the accusative; with verbs of hearing and smelling the perceived object is in the genitive. This difference relates to different conceptualizations of the events. The accusative-case expresses that the event is viewed as being analogous to the prototypical transitive clause, i.e. the perceiver is viewed as an Initiator that directs his view to the perceived object (see section 1.1.2). By contrast, the genitive case with verbs of hearing and smelling can be interpreted as a genitive of source. The genitive case evokes the image that the perception emanates from the perceived entity towards the perceiver. Verbs of hearing may also be construed with an object in the accusative case which expresses the content of what is heard, e.g.,

(34) ταύτα δ' ἐγὼν Καλυψούς ἦκουσα (μ 389)
This I heard from Calypso.

The distinction between genitive and accusative with verbs of hearing could be explained semantically by the idea that the content of the perception is ‘captured’ completely by the perceiver (hence the accusative), as opposed to the source of the perception, which is ‘captured’ only partially. The genitive can therefore be interpreted both as a partitive genitive, and as a genitive of source. The actual sound heard can be expressed both in the genitive and in the accusative, e.g. ὁκοῦν ψωνήγ/ψωνήν ‘I hear a voice’. Apparently, the perceived sound can be viewed either as partially or as completely ‘taken in’.

Having digressed on the various case-constructions of perception verbs, I return now to the role of the middle voice within the class of perception verbs. On the basis of lexicalization patterns in different languages, Viberg (1984) makes a tripartite distinction in the domain of perception verbs. The first involves perception in which the experiencer is actively involved: controlled activity in the terms of Viberg (e.g. ‘look at’, ‘listen’). The second relates to perception in which the experiencer is more passively involved: non-controlled experience (‘see’, ‘hear’). The third type includes verbs in which the source is marked as the subject: source-based copulative state construction), e.g. ‘the painting looks

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159 This idea of perception is related to one that is often found in folk-theories, namely that the eye is thought of as emanating rays of light. This kind of "naive physics" is found in Empedocles (Fr. 84). He compares the eye with a lantern from which rays of light are leaping forth. This passage is cited by Aristotle (de sensu 437b23ff.). Aristotle adds that Empedocles, in a passage now lost, expresses a contrary view, namely that vision is to be explained by effluences of the objects seen. Apparently, Empedocles thought of seeing as a two-way interaction.

160 Also Apollonius observes that there is a semantic difference between the verbs of hearing that are construed with a genitive, and the verbs of seeing that have an accusative. With regard to hearing, the subject, according to Apollonius, is passively involved. The body is, as it were, penetrated by the sensory experience. Conversely, seeing involves an active subject. The subject can control the event by closing his eyes. These semantic differences are reflected in their respective case-constructions (A.D. Synt. 417 Uhlig; see Lallo 1997, II: 262-3).
very old'. It appears that this trichotomy is also relevant for the voice marking of perception verbs in Greek.

In relation to the voice-marking of verbs of perception, Kemmer (1993: 136) remarks: "It remains to be seen whether the difference between more active and less active Experiencer verbs is supported by a difference in middle-marking patterns." I believe that, in Greek, a difference in middle-marking can indeed be discerned. Consider the following table:

Table 2: Greek verbs of perception: volitional vs. non-volitional

<table>
<thead>
<tr>
<th>+ VOLITION</th>
<th>- VOLITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ἀκοινάζωμαι 'listen'</td>
<td>οἰσθάνομαι 'perceive, notice, learn'</td>
</tr>
<tr>
<td>ἀκροδόμωμαι 'listen, obey'</td>
<td>ὀσφραίνομαι 'smell'</td>
</tr>
<tr>
<td>γεύσομαι 'taste'</td>
<td>ὄραμα (esp. Hom.) 'see'</td>
</tr>
<tr>
<td>δέρκομαι (Hom./poetry) 'fix one's eyes, gaze'</td>
<td></td>
</tr>
<tr>
<td>θεάομαι 'look at (wondering)'</td>
<td></td>
</tr>
<tr>
<td>ματίσσομαι (Hom./poetry) 'seek for s.th. by touching'</td>
<td></td>
</tr>
<tr>
<td>σκέπτομαι 'look at'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>- VOLITION</th>
<th>+ VOLITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ἀθρέω 'look at'</td>
<td>ἀλθέω 'hear'</td>
</tr>
<tr>
<td>βλέπω 'look at'</td>
<td>βλέπω 'see'</td>
</tr>
<tr>
<td>(διά)οπτεύω 'watch'</td>
<td>κλύω (Hom./poetry) 'hear'</td>
</tr>
<tr>
<td>κλύω (Hom./poetry) 'listen'</td>
<td>λεύσσω (Hom./poetry) 'see'</td>
</tr>
<tr>
<td>λεύσσω (Hom./poetry) 'look at'</td>
<td>ὀρῶ (aor. ἔδω) 'see'</td>
</tr>
<tr>
<td>σκοπέω 'look at'</td>
<td></td>
</tr>
</tbody>
</table>

161 It is hard to find examples of source-based perception verbs in Greek (i.e. 'X looks/ sounds/ smells/ feels/ tastes good'). The few examples I found seem to display a tendency to be active which may be connected to their stative semantics, cf. ὄξω 'smell' (sporadically middle ὄξωμι), πικρίζω 'taste bitter', ἐγγλόσσο 'taste sweet'. I am not aware of source-based verbs meaning 'taste' or 'feel' ('X tastes/feels good') in Greek.


163 Perhaps also ὀσφραίνομαι 'smell' belongs to the [- Volition] class, but this is difficult to assess due to its low frequency.

164 In Classical Greek, σκοπέω replaces σκέπτομαι in the present stem. There is also (albeit marginally) a middle form σκοπέω, probably contaminated by σκέπτομαι. Σκοπέω and -οπτεύω are denominatives (from σκοπός 'watcher' and -όπτης 'id.' respectively). The original meaning of both verbs was probably stative 'be a watcher'. Note that stative verbs are typically actives.

165 The etymologies of ἀκοινάζωμαι and ἀκροδόμωμαι are similar to one another. The former is a compound of the root ἀκ- 'sharp' and the root of ὄς 'ear'; the latter is a compound of ἀκρος 'pointed' and ὄς. The verbs must, therefore, originally have meant 'have pointed/sharp ears, prick up one's ears' (see Chantraine 1968).

166 The presents κλύω and ὀσφραίνομαι are novel formations, created after a reinterpretation of the originally thematic aorists ἐκλάνου and ὀσφραίνομαι as imperfects.
It can be observed that there appears to be a tendency for middle perception verbs to be volitional. Exceptions are άποθαναμαι, όψοράνομαι167 and the special middle verb όραμα (see below). Non-volitional perception tends to be expressed by active verbs. There are, however, also active verbs that express volitional activities. Note that three of them also have a non-volitional use: βλέπω, κλώ, λέγω (the latter two are restricted to poetry in the Classical language). The phenomenon that active verbs are also used to express meanings that are typically expressed by the middle voice is in accordance with the claim that the active form is semantically unmarked (see section 1.1.4).

The verbs are classified according to their typical meaning.168 For instance, although άκοσσω and άξω sometimes denote a volitional activity (in the sense 'listen, obey'), their prototypical meaning is non-volitional ('hear'). Likewise, γεύσομαι has a marginal non-volitional meaning 'experience', yet its prototypical meaning is volitional 'taste' (English taste is ambiguous in this respect). As to βλέπω, κλώ, and λέγω, both usages (+/- volition) are approximately equally frequent. Δέρχομαι is a Homeric word, typically meaning 'fix one's eye, gaze, look at' (+ volition). In classical Greek, it is only rarely used in poetry, mostly in the sense 'see' (-volition).169

The question remains as to how the tendency of middle perception verbs to designate volitional perception should be explained. At first glance, the pattern seems to contravene our intuitive convictions. We would expect that the more 'passive' or non-volitional the meaning of a verb is, the more likely it is to be marked by the middle voice. However, it should be kept in mind that the semantics of the middle voice is not directly related to the notion of volition. Instead, as we have seen in chapter 1, the crucial element of middle semantics is the notion of subject-affectedness. The proper question, therefore, regards why there should be a relation between volitional perception and affectedness. I will suggest here that the mental affectedness of the subject is the crucial element that explains the middle verbs of perception. The element of volition is to be regarded only as a side-effect of the mental affectedness. For example, σκέπτομαι - unlike active όραμα - typically implies that the subject looks at something in order to acquire information about it. It is, therefore, not surprising that its meaning shades into the sense 'consider, think about'. In other words, the perception brings about a lasting effect on the cognitive state of mind of the perceiver. Another example is άχροάμοι which can mean 'listen' as well as 'obey'. The latter meaning implies that the listener's mental attitude is affected to such an extent that he obeys the person listened to. The stronger mental involvement of the subject in the case of volitional perception can also be of an emotional kind. For example,

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167 Interestingly, όψοράνομαι has a passive aorist όψοράνθησα (besides a thematic aorist όψοράμην), whereas the volitional middle perception verbs all have a sigmatic middle aorist (with the exception of ἔδρακων), e.g. ἐγενομήν, ἐσκεψάμην. In ch. 3, I will argue that the sigmatic middle and the passive aorist forms express, respectively, a low degree and a high degree of subject-affectedness. Incidentally, although the volitional middle perception verbs that have an accusative object resemble prototypical transitives, it is clear that they are not. In Classical Greek, none of these middle perception verbs can be passivized, which can be explained by the fact that their objects are not patients (but rather zeros). Perhaps also the tendency to avoid ambiguity (e.g. σκέπτομαι 'look at', as well as *'be looked at') may be operative. Note that an exceptional passive aorist form σκεψάθηνα 'to be observed' (which is formally distinct from ἐσκεψάμην 'I observed') is found in Hp. de Arte 11.

168 Based on two studies in the verbs of perception by Prévoit (Prévoit 1935b, 1935c).

169 For δέρχομαι and its remarkable passive aorist forms ἔδρακην and ἐδέρχθην, see section 3.2.3.2.
θεάωμαι often implies that one looks at something with a sense of wondering. By contrast, the interaction between the perceiving subject and the perceived object of non-volitional perception verbs ('see', 'hear') is of a more mechanical character.

As was noted above, volition is only a side-effect of the mental involvement of the subject, and not an essential property that explains the middle voice of verbs of perception. This can clearly be seen in the case of ὀράω - ὀράωμαι. The middle form ὀράωμαι is the marked member of the oppositional pair. It occurs less frequently170, and it marks an increased mental affectedness of the perceiving subject. In his in-depth investigation of the opposition ἰδέων vs. ἰδέωσθαι in Homer, Becher comes to the following conclusion:

(35) "Das Aktiv steht, wenn die Aktion hervorgehoben ist; (...)" (Becher 1964: 424); "Das Medium steht, wenn das Subjekt und seine besondere Beteiligung an der Handlung hervorgehoben ist: etwa "selbst sehen", (..), "bei sich sehen", (..), ferner, wenn die Wechselwirkung mit dem Objekt betont ist, (..), - und schließlich, wenn das Objekt und seine Rückwirkung auf das Subjekt hervorgehoben wird: bei übermächtigen, besonders göttlichen Objekten; lebhaft vergegenwärtigend zur Bezeichnung des starken Eindrucks, den das Objekt auf das Subjekt macht; bei erwarteten Objekten" (Becher 1964: 426).

According to Becher, the middle ὀράωμαι expresses that the object leaves a strong (mental) impression on the subject.171 For example,

(36) ὥρποι, ἦ μέγα θαύμα τόδ' ὀφθαλμοῖσιν ὀράωμαι (N 99)
Oh! Surely a great marvel is this that I look upon with my eyes.

In Homer, the verb always has middle ending when the object is θαύμα 'wonder', as in the formula θαύμα ἰδέωσθαι ('a marvel to look upon').

In conclusion, the middle voice of verbs of perception marks that the subject is mentally affected. Active verbs of perception are unmarked with respect to the feature of affectedness. Middle verbs of perception are often volitional. This tendency may be explained by the fact that their subjects intend to acquire information about or from the perceived object.

2.1.9 Mental Activity Middle

The mental activity middle involves an animate subject that volitionally performs a mental activity, whereby the subject itself is mentally affected. In other words, the subject has two semantic roles: agent and experiencer. In some cases, moreover, the subject benefits

170 In Homer, the active form occurs 471 times, the middle times 114 (see Becher 1964: 42). In Classical Greek the middle form occurs only marginally, and in the fixed expression ἰδού 'look!'.

171 Becher's characterization of the uses of active and middle with ἰδέω readily fits in with the model set out by Croft (1991), in which the conceptualization of mental events involves two causal relations (see section 2.1.3). In the case of active ἰδέω the causal relation from perceiving subject to perceived object (die Aktion) is more prominent (hervorgehoben), whereas in the case of middle ἰδέωσθαι the reverse relationship from object to subject is highlighted: the object somehow leaves a strong impression on the subject.
from the mental activity so that the subject can also be assigned the role of beneficiary. Typical examples are:172

βουλέυομαι 'take counsel, plan, resolve'
λογίζομαι 'calculate, reason, consider' (MT)
μέδομαι/μήδομαι 'plan, contrive'173
μητίσαι 'devise, contrive' (Hom.) (MT)
σημαίνομαι 'infer from signs, conjecture'
σταθμίσαι 'measure, estimate, conjecture'
τεκμαίρομαι 'judge from signs, conjecture' (MT)

Many middles of mental activity are media tantum (MT). A number of them, however, do have an active form such as βουλέω and σημαίνω. These active forms, however, do not have a causative meaning with respect to the middles forms. It appears that the middle form expresses an increased mental involvement of the subject. Thus, active σημαίνω means 'give a sign', whereas middle σημαίνομαι may be roughly characterized as 'give oneself a sign' (similar to an indirect reflexive middle, see section 2.1.11), hence 'infer from signs'. The distinction between βουλέω and βουλεύομαι is less clear-cut. To all appearances, the active form has the same meaning as the middle. Only the stative meaning 'to be a member of the βουλή' is limited to the active form βουλέομαι.174

In general, mental activity verbs designate that the subject conceives an idea by reasoning. This idea can relate to a thing (expressed as a direct object) or to an event (expressed by an infinitival complement). For example,

(37) (...) οἱ Ἑλληνες δρησμὸν βουλεύονται καταρρωδηκότες, (...) (Hdt. 8.75.2)
(...) the Greek are planning flight in their fear, (...)

(38) οἱ δὲ δὴ ἐπτὰ τῶν Περσέων ὡς ἐβουλεύσαντο ἀντίκα ἐπιχειρεῖν τοῖς μάγοιςι,
(...) (Hdt. 3.76.1)
The Seven, having resolved to attack the Magians at once, (...)

There is no sharp boundary between the mental activity type and the mental process type (section 2.1.3). The crucial difference is that mental activities are volitional. There are, however, several verbs that can designate both mental processes and activities, for example, ἐννοοῦμαι 'understand, intend, take thought for, be anxious' (mental process) and 'consider, reflect upon, invent' (mental activity); φράζομαι 'think, believe' (mental process) and 'consider, contrive' (mental activity). This kind of polysemy can emerge easily since, in many contexts, whether the subject is more actively involved in the

172 Note that mental activity verbs tend to have a sigmatic middle aorist (e.g. ἐβουλευόμην). For a study of the syntax and semantics of the verbs of thinking in Homer, I refer to Bertolín Cebrián (1996).

173 The active participle μέδον functions as a substantive 'ruler' (i.e. someone who plans things). The active form may be explained by the fact that a ruler does not plan for his own sake (at least he is not supposed to), but for the sake of his subjects.

174 The compounds συμβουλεύω - συμβουλεύομαι do show a clear contrast; the former means 'advise (+ dat.), recommend (+ acc.)', whereas the latter means 'to take counsel with s.o. (+ dat.)'. That is, when the subject is the 'receiver' of the advice, the verb takes the middle voice.

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cognitive process or not is irrelevant. What matters most, then, is that s/he conceived an idea, not in what way s/he conceived it.

Like perception\textsuperscript{175} and mental processes, the semantic structure of mental activities involves two simultaneous causal relations; (a) a cognizer that focuses his attention on, and makes mental contact with, a cognized entity (an 'idea'), and (b) the cognized entity which, by coming into being, brings about a mental affectedness within the cognizer. The middle-marking of the mental activity verbs is motivated by causal relation (b): the mental activity has an effect on the state of mind of the cognizer. Mental activities are semantically middle (as opposed to active and passive) in that the subject is both an Initiator (being an \textit{agent}), and an Endpoint (being an \textit{experiencer}).

The mental activity middle is related to the indirect reflexive middle. This is shown by the fact that quite a number of indirect reflexive middle verbs acquired a mental meaning. For example, the original meaning of the verbs \textit{τεχνάξωμαι} and \textit{μηχανάξωμαι} probably was indirect reflexive 'make s.th. for oneself by art', construed with a concrete, physical direct object (e.g. \textit{πλοία 'ships'}, Hdt. 1.94.6). Then, through metaphorical extension, they were also used in the sense to 'contrive', i.e. a purely mental activity with an abstract direct object that only exists in the mental sphere, e.g.,

\begin{equation}
\text{(39) } \delta \text{ συνήδει } (...) \text{ τὴν γόνατον ταύτην, } (...) \text{, τῷ πατρὶ τῷ ἁμετέρῳ θάνατον μηχανω-}
\text{μένην φορμάκοις, } (...) \text{ (Antipho 1.9)}
\end{equation}

(...) who knew that this woman, (...) had been contriving death against our father by poison, (...)  

Other examples of a semantic extension from indirect reflexive (concrete meaning) to mental activity (abstract) are:

\begin{itemize}
\item \textit{μετατίθεμαι} ti 'change s.th. for oneself' > \textit{μετατιθημαί} tīn δόξαν 'change one's opinion' > \textit{μετατίθημα} (abs.) 'change one's mind'\textsuperscript{176}
\item \textit{ἄριστομαι} ti 'mark s.th. out for oneself' > 'determine for oneself; define' (cf. K-G, I: 111)
\item \textit{συντίθημαι} ti 'put s.th. together for oneself' > 'agree on, conclude'
\item \textit{συμβάλλωμαι} ti 'bring s.th. together for oneself, contribute' > 'suppose, reckon' (K-G, I: 111)
\end{itemize}

An example that shows an intermediate stage between indirect reflexive and mental activity is:

\begin{itemize}
\item \textit{άριστομοι} ti 'gaze at' and \textit{σκέπτομαι} 'look at' which acquired a metaphorical sense 'contemplate' and 'consider, examine', respectively. See also note 91.
\end{itemize}

\textsuperscript{175} Mental activity is similar to perception. Verbs designating visual perception tend to evolve into verbs of mental activity. Sweetser explains this phenomenon thus: "This metaphor is probably based on the strong connection between sight and knowledge, and also on the shared structural properties of the visual and the intellectual domains - our ability to focus our mental and visual attentions, to monitor stimuli mentally and visually" (1991: 33). She gives the following examples of verbs that either have a physical or a mental sense: \textit{look down on, look up to, look forward to, look back on, overlook, look after}. Examples from Greek are \textit{θεοματί 'gaze at'} and \textit{σκέπτομαι 'look at'} which acquired a metaphorical sense 'contemplate' and 'consider, examine', respectively. See also note 91.

\textsuperscript{176} The simple verb \textit{τίθημι} is more frequently used in the middle when it is used 'in reference to a mental action', as LSI notes (under B II). The image of putting something in some place (at one's own disposal, cf. the middle voice) is metaphorically employed in a meaning 'assess', e.g. \textit{ἐκ τοῦ τοι} ἡ δίκαια τίθενται (Dem. 8.8) ('they assess justice on these grounds'). The frequent construction of this metaphorical use of \textit{τίθημι} with local adverbials (e.g. \textit{τίθημι-μα} ti ἐν τινι 'regard s.th. as s.th.\textsuperscript{\textdagger}') shows that the concrete meaning \textit{put something somewhere} still shines through the metaphorical meaning.
The mind is metaphorically conceptualized as a container, in which one can store things to remember. This is an intermediate case because the subject (σο) can be equally viewed as a beneficiary and as an experiencer. The subject is a beneficiary since he has the items that are stored in the container of his memory readily at his disposal; the subject is an experiencer in that he is mentally affected as a result of the event. These semantic roles are, however, related.

2.1.10 Speech Act Middle

The speech act middle involves a subject that is involved in the speech act in a special way. Since speech acts are volitional the subject can be considered an agent. In addition, the subject can be interpreted as a beneficiary or an experiencer. Examples of middles designating speech acts are:

- ἀγοράμαι 'speak in the assembly, speak' (MT)
- ἁρόμαι 'pray' (MT)
- ἁπολογέμαι 'speak in defense' (MT)
- μαντεύμαι 'devine, prophesy' (MT)
- μυθέμαι 'speak, say' (MT)
- προφασίζομαι 'allege as an excuse' (MT)
- φθέγγομαι 'utter a sound or voice; speak loud and clear' (MT)
- ψεύδομαι ' cheat by lies, speak false'

**Verbs of emotional speech**

- σκίστομαι 'accuse' (MT)
- ἁνοίνομαι 'refuse, reject' (MT)
- ἀρνόμαι 'refuse, deny' (MT)
- λοιπορέμαι 'revile, rebuke'
- μείψομαι 'rebuke' (MT)
- μύρομαι 'lament'
- μυσταματί 'blame'
- ὄδυρομαι 'lament' (MT)
- ἐλοιφύρομαι 'lament' (MT)

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177 A very common metaphor (see Lakoff 1987: 450).

178 More examples of this type of metaphorical shift can be found in Kühner-Gerth (I: 111-2). Note that Langacker treats beneficiaries and experiencers as manifestations of one archetypal role experiencer (Langacker 1991a: 327-9), see also section 1.1.2.

179 Most of the speech act middles have a sigmatic middle aorist, e.g. ἢγορησόμην, ἡγιασόμην. A number of them also have a passive variant form with identical meaning, e.g. ἄπιστολεγόμην, ἄρνηθην, δίεξέχθησα, ἐλοιφύρησα. Δείκνυομαι only has a passive form, ἐδείκτην. There is, however, a semantic distinction between the variant formations ἐμμετρόμην 'I blamed, rebuked' vs. ἐμέμφηθην 'I became angry with', and ἐπενεκτίμην 'I lied' vs. ἐπείδευθην 'I made a mistake'. In these oppositional pairs, the passive aorist forms do not denote speech acts, but mental processes. I will elaborate on the issues of (aorist) morphology in ch. 3.
Most middle verbs of speech are media tantum. If they do have an active form, there is not always a clearly detectable semantic distinction (e.g. ἐντέλλω - ἐντέλλομαι, λοιπὸργ - λοιπὸργομαι). If there is a clear semantic distinction, it is not predictable, as in ἄμειβομαι ‘exchange’ vs. ἄμειβομαι ‘answer’ (see below), and ἐφίημι ‘send’ vs. ἐφίημι ‘command’ (original meaning ‘send s.o. for oneself’?). In these cases, the meaning of the middle verb has drifted away from its active counterpart.

Most middle verbs of speech are rather specific with respect to their lexical meaning. It appears that verbs with a general, more neutral meaning like ‘speak, say’ tend to be active: ἄγορεύω ‘speak’, οὐδόόδω ‘speak, say’, εἴρω ‘speak, say’ (Hom.), καλέω ‘call (by name)’, λέγω ‘speak, say’, and φημί ‘say’. In Homer, however, we also find middle forms of φημί (φάτο), and the general verb μυθόμαι ‘speak, say’, which appear to be semantically neutral. These middles are possibly the result of semantic
generalization (or ‘bleaching’), i.e. their original, more specific meaning underwent a process of generalization. 187

The middle inflection of verbs of speech can be explained semantically in the following ways. Firstly, in many cases the subject intends to gain benefit from the speech act, as in ἀρόμασα, εὔχομαι, λίσσομαι. These middle verbs are similar to indirect reflexive middles in that the subject can be assigned the semantic role beneficiary. This probably also applies to verbs of commanding: the subject benefits in that an act is performed according to his will. Also speech acts like ἀπολογέομαι, προφασιζομαι, ψεύδομαι (and αἰτιάομαι?) will generally be profitable to the speaker.

Secondly, many middle verbs of speech imply a strong emotional - or at least mental - involvement on the part of the speaker: αἰτιάομαι, ἀναίνομαι, ἄρνεομαι, λίσσομαι, λοιπορέομαι, μέμφομαι, μύρομαι, ομοέομαι, όδόρομαι, ὀλοφόρομαι (also ψεύδομαι?) 188 The subject of verbs of emotive speech acts can be assigned the semantic role of experiencer. As for ὑποσχέομαι and ὑφίσταμαι (and εὐχομαι in the sense ‘vow’) the consequence of the speech act is that the speaker is bound by his promise, and as such s/he is mentally affected by the speech act (similarly, Kemmer 1993: 141).

More difficult to account for, however, is the middle inflection of verbs of asking and answering. The middles of asking πυνθάνομαι, δέομαι, and aorist ἡρόμην can be explained in various ways. The former two imply that the asker will get, as a result of the speech act, the information s/he asked for. In this way, the speaker-subject can be considered an experiencer. The semantic development of πυνθάνομαι makes this point clear. In Homer the verb has the meaning ‘hear that, learn that’ (a mental process middle). The subject undergoes a cognitive change of state. This is still the central meaning in the Classical language (especially in the aorist stem). In Classical Greek, however, it acquired an additional meaning ‘ask’ (especially in the present stem), which can be paraphrased by try to acquire information 189. In a similar way, the middle inflection of the aorist ἡρόμην might be explained by the fact that the subject acquires information as a result of the question. 190

Δέομαι (+ gen. + gen.) ‘beg s.th. of s.o.’ is a semantic extension of the original meaning ‘lack, need, want’, which pertains purely to a passive emotional or physical inconclusive.

187 As for φάσο (cf. Lat. fāri ‘say’), this process was as follows: the root *bʰeh₂- originally had a more concrete meaning ‘shine, be bright’, e.g. Skt. bʰã-ti ‘shine’ (which corresponds with Greek φαίνει). Thus, the original meaning of the middle may have been ‘make oneself clear’, hence ‘explain oneself, speak’ (see Chantraine 1968).

188 The fact that many emotive speech acts are actives(-only) attests to the semantic unmarkedness of the active endings (see chapter 1), e.g. εἰσίζω ‘to cry εἰσί, wail’, γαῦζο ‘to cry γαύ, grumble, mutter’, Δηνέώ ‘wail, mourn’, κλαίω ‘weep, wail’ (also κλαίομαι in poetry, perhaps modelled after future κλαιόμαι), οἴμωζο ‘to cry οἶμοι, wail’. See for the issue of active and middle (quasi-)synonyms chapter 5.

189 Note that the new meaning ‘ask’ probably developed from the conative use of the present stem.

190 An intriguing question is why the present form ἔρωστα is active, but the aorist form ἡρόμην is middle (although the expected form ἡρότησα also occurs). In my view, the answer must be sought in the semantic unmarkedness of the active (see chapter 1). In chapter 5, the issue of active and middle (quasi-)synonymous verbs will be dealt with.
affectedness. This mental and physical affectedness is still present in the meaning ‘beg for’. This can be nicely illustrated by contrasting δέομαι with active αἰτέω. Compare the following instances where both verbs are construed with an infinitive:

(41) [Adrastus] παρελθὼν δὲ οὖτος ἐς τὰ Κροίσου οἰκία κατὰ νόμους τοὺς ἐπιχωρίους καθαρσίου ἐκέκρησε (Hdt. 1.35.1).
This man came forward into the house of Croesus and begged to win purification of Croesus after the customs of that country.

(42) ὁ δὲ Κῶς, οίᾳ τε οὐ τύραννος δημότης δὲ ἔων, αἰτεῖ Μυτιλήνης τυραννεύσαι (Hdt. 5.11.2).
But Coes, as he was not a ruler but an ordinary citizen, asked to become ruler of Mytilene.

In (41), the subject (Adrastus) is in deep trouble, and the purification he begs for is his only chance of salvation. In (42), on the other hand, Darius allows Coes to propose a reward for his good advice. Coes is clearly not in urgent need of the city of Mytilene when he asks for the tyranny over it. The semantic contrast between δέομαι and αἰτέω is also reflected in the different case-markings of the object that is asked for. The genitive of δέομαι can be interpreted as an ablative genitive (i.e. expressing the idea of being separated from s.th.), or, alternatively, as a genitive of source (viz. of the emotion of desire). Conversely, αἰτέω can be construed with a double accusative - of the person asked and of the thing being asked for. These accusative complements with αἰτέω neutrally denote the direct objects. Both the person and the thing can appear as subject in a passive construction.

The last middle verb of asking to be discussed here is λίσσομαι (+ acc.). The middle voice can be explained by the emotional undertone of the act of begging, and by the benefit that the subject hopes to receive as a result. Thus its subject can be interpreted both as an experiencer and as a beneficiary.

Verbs of answering, ἀμείβομαι and ὑπο-ὑποκρίνομαι, are more problematic with regard to their middle voice. The explanation may be found in the history of these verbs. In Homer, the middle ἀμείβομαι means ‘alternate with one another’ (see section 2.1.6). This reciprocal meaning shifted into the meaning ‘answer’. An intermediate stage may have been ‘alternate with words’, as in

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191 This semantic change can be nicely explained as a generalized invited inference. For instance, an utterance such as I need help pragmatically implies that one asks for help. That δέομαι involves a high degree of subject-affectedness is also shown by the fact that it has a passive aorist form ἔδειξην. In ch. 3, I shall argue that the passive aorist form expresses a high degree of subject-affectedness.

192 Marginally, also middle αἰτέομαι occurs, though apparently without distinct meaning. The middle form may however emphasize that the subject profits or hopes to profit as a result of the request (see Rijksbaron 1991: 59 [on E. Ba. 360]).

193 Both the person from whom something is asked, and the object that is asked for are marked by the genitive. Both are illustrated by σέο δέομαι μὴ δέσσαι ἄνόμων (Hdt. 1.8.4) (‘I beg you not to request unlawful things from me’).
As for ἀποκρίνομαι, this verb appears to be an Attic replacement (first occurrence in Thucydides) of the older (Homeric) verb ὑποκρίνομαι. In origin, simple κρίνομαι had an indirect reflexive meaning 'select (for oneself), distinguish (for oneself)' (cf. active κρίνω 'select, distinguish'). This meaning is still well-attested (e.g. δ 408 ἐταξίρους 'select companions'). Subsequently, this meaning extended to the metaphorical meaning 'explain, interpret'. Both the simple verb and the compound ὑποκρίνομαι can have this meaning. For example,

(44) ἄλλα ἀγε μοι τὸν ὅνειρον ἑπόκριναι καὶ ἀκούσον (τ 535).
But come now, hear this dream of mine, and interpret it for me.

(45) (...) ὁ γέρων ἐκρίνατ' ὅνειρος (Ε 150)
(...) that old man interpreted dreams.

Finally, the meaning 'explain, interpret' developed into 'answer', probably because, in general, giving an explanation occurs as an answer to a question.

The last issue I would like to discuss in this section concerns the pair ψεύδω - ψεύδομαι. The formal contrast between active ψεύδω 'deceive' and middle ψεύδομαι 'cheat by lies' (aor. ἐψευδώμην) can be explained adequately in terms of absence vs. presence of subject-affectedness. The active appears to denote 'cheating, deceiving' in a general sense, i.e. not necessarily by lying. This is shown by the occurrence of inanimate entities as subject. For instance,

(46) a. ἄλλα πιστεύω (...) μη ψεύσειν με ταύτας τὰς ἀγαθὰς ἑλπίδας (Xen. Cyr. 1.5.-13)
But I feel confident (...) that these sanguine hopes will not deceive me.

b. Ναι τῶ σιώ, ὦ Ἀργείτης, ψευσεί υμεὶ τὰ σήματα ταύτα (Xen. HG 4.4.10)
By the twin gods, Argives, these Sigmas will deceive you.

In example (a.) the subject is ἑλπίδας, which makes it unlikely that ψεύσειν refers to a speech act. In example (b.) the subject is τὰ σήμα, which refers to the sigmas written on the shields of the Sicyonians. Pasimachos took these shields from the Sicyonians to deceive the Argives. Again, written letters on shields cannot speak (in the literal sense). The construction allows a second complement in the genitive, expressing the thing with respect to which one is deceived. This (separative) genitive is probably related to the genitival complement with verbs of depriving. That this active construction has a causative meaning is shown by the occurrence of corresponding intransitive mental processes like:

194 In this metaphor, explaining things is viewed as a process of taking something apart in order to understand it better. A similar metaphor is found in English expressions such as analyse (from Greek ἀναλίω 'make loose, take apart'), explicate (from Latin explicāre 'unfold'), unravel, and untangle.

195 There is also an intransitive mental process middle ψεύδομαι 'be deceived' (with a passive aerist ἐψευδόθην), of which the active ψεύδω 'deceive' is the causative form.
(47) ως δὲ ψευσθήναι τῆς ἑλπίδος, (...) (Hdt. 1.141.1).
When he was deceived in his hope, (...)

The middle verb ψεύδομαι (aor. ἐψευσάμην) can be construed absolutely, or with an object, for example,

ψεύδομαι 'I lie' (absolute)
ψεύδομαι τούτο 'I say that which is untrue' (cognate object)
ψεύδομαι ούτὸν 'I deceive him by lying' (human object)
ψεύδομαι ὅρκια 'I belie the treaty' (inanimate object)

The middle voice of ψεύδομαι can be explained in two ways that do not exclude each other. First, the middle voice may express that the subject generally derives benefit from the act of lying (i.e. the subject is beneficiary). Second, the middle may also express that the subject is mentally involved to a greater extent (i.e. the subject is an experiencer), since the liar consciously utters words which he knows to be untrue.

In sum, active ψεύδω 'deceive' is the causative counterpart of ψεύδομαι 'be deceived' (aor. ἐψευσήθη). Ψεύδω does not imply mental involvement of the subject. Middle ψεύδομαι (aor. ἐψευσάμην) 'lie, cheat by lies', on the other hand, is a speech act, and it does imply that the subject is mentally affected.

To conclude, in this section I have offered a number of explanations for the occurrence of the middle voice with speech act verbs. I have argued that in some cases the middle voice marks that the subject benefits from the speech act (subject is beneficiary), and that, in other cases, the subject is mentally (emotionally or cognitively) affected. These different explanations do need necessarily exclude one another. There are, however, also middle verbs whose middle endings do not appear to have a special semantic contribution (e.g. φάστο). These cases may be explained by semantic generalization (or 'bleaching'). In the course of history, the middle endings lost their specific middle meaning.\

2.1.11 Indirect Reflexive Middle

The indirect reflexive middle involves transitive events performed by a volitional subject (an agent). The subject is affected in that s/he derives benefit from the action performed, i.e. the subject has the semantic role of beneficiary. It is, however, often quite difficult to distinguish between the beneficiary-role and the recipient-role because the indirect reflexive middle designates typically that the subject, like a recipient, has the affected or

196 A class of middle verbs that is related to the speech act middles are the media tantum that denote sounds made by animals, e.g. βλάστημα 'bleat', βραχώματα 'roar, bellow', μυκύτημα 'bleat', μυκύτημα 'bellow', and ζέγγωμα 'whinney, cry (of birds), speak (humans)'. Most of these verbs are onomatopoeic. The polysemous verb φθέγγομαι that can apply to animal sounds as well as to human speech shows that these classes are related. As with human speech, the middle voice of animals sounds may be explained by the emotional affectedness of the subject: animals typically bleat/bellow/bark etc. when they are agitated/afraid/angry/hungry/need to be milked, etc. There are, however, also active verbs of animal sounds: γρύζω 'grunt', ύλεκτω 'bark', and χρεμετίζω 'whinny, neigh'. Μηχάνομαι and μυκύτομαι have active aorists, ξυμκων and ξυμκων. As was argued in ch. 1, the active voice does not necessarily express absence of subject-affectedness. Rather, it is neutral as to the semantic feature of affectedness.

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affected object at his/her disposal as a result of the event. Recipient-subjects, however, are only found with media tantum.\textsuperscript{197}

A typical example is (see also Cock 1981, Rijksbaron 1994\textsuperscript{2}: 144):

\begin{quote}
(48)  
a. (...) διασάμενοι σίτον ἐν τῇ πόλισι οἱ ἀστοὶ ἄλευρα τε καὶ ἄλφιτα ἐποίησαν πέντες ἑξῆς μήνας συνχοῦς (Hdt. 7.119.2)  

(...) the citizens divided up corn in the cities and all of them for many months made wheaten and barley.  

b. [The Egyptians] (...) ἀπὸ ὀλυρέων ποιοῦντας σιτία, (...) (Hdt. 2.36.2)  

(...) they make their bread from spelt, (...).
\end{quote}

In example (a.), the corn is ground for the Persian king, Xerxes, whereas in (b.) the Egyptians themselves profit from the food they prepare.

In addition to indirect reflexive middles that contrast with active verbs\textsuperscript{198}, there are also a number of media tantum:\textsuperscript{199}

\textsuperscript{197} This means that verbs such as δίδωμι 'give' and λέγω 'say' do not have indirect reflexive middles διδομαι τι 'I give myself s.th.' or λεγομαι τι 'I say s.th. to myself'. Because it is unusual to give or to say something to oneself, the indirect reflexive is expressed by the pronoun ἕαυτῷ (see also below). For an extensive analysis of the indirect reflexive use of ποιοῦμαι, I refer to Cock (1981).

\textsuperscript{198} There are also a number of indirect reflexive middles whose meaning has drifted away from that of their active counterparts. E.g., αἰρέω 'take' vs. αἱρεῖμαι 'choose' (esp. in the aorist stem: εἰλόμην 'I chose'). In Homer, the middle αἱρεῖμαι still exhibits the regular meaning 'take for oneself'; ἀποδίδωμι 'give back' vs. ἀποδίδομαι 'sell' (< *give back with the aim of profit'). Other examples are cited by Rijksbaron (1994\textsuperscript{2}: 147).

\textsuperscript{199} There is also a group of verbs that designate emotionally motivated actions that seem to be related to the indirect reflexive middle. Often, the subject can also be said to benefit from the activity in that the subject tries to exercise power over the object through the activity. Examples are: αἰχίζομαι 'maltreat', βιῶτζομαι 'press hard, wrong, ravish', δηλέομαι 'hurt, damage', δισέρομαι (+ acc. + dat.) 'present s.o. with s.th.', λυκοίνωμα 'outrage, maltreat', φειδομαι (+ gen.) 'spare', φιλοφρονέομαι 'treat kindly, show favour to', χαρίζομαι (+ dat.) 'do s.th. favourable to s.o'. The subject is either ill-disposed or well-disposed towards the object. Some of the verbs expressing violent actions (βιῶτζομαι, δηλέομαι) semantically shade into middle-only verbs of plundering, like σίνομαι and λητζομαί, that can be classified as indirect reflexives. Like the indirect reflexive middle, these verbs all have sigmatic middle aorists (e.g. ἔβισσόμην, ἐχασίσαμην).
The use of the indirect reflexive middle is an unemphatic way of expressing that the subject is the beneficiary. If one wishes to emphasize that the subject benefits from the action, the reflexive pronoun is used, and mostly with an active verb form (comparable to the direct reflexive construction with reflexive pronoun, see 2.1.7). This can be seen as a form of neutralization (see also section 1.1.4). An example is

(49) [Philip weakened Macedonia] (...) ἐπισφαλεστέραν ἢ ὑπήρχε φύσει κατεσκεπάσαν αὐτῷ (Dem. 2.15)

[Philippus] has rendered [Macedonia] for his own benefit even more insecure than it was by nature.

However, the (redundant) use of a middle form is another option, e.g.,

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200 Assuming that the original meaning of ἄκέομαι was 'mend, repair', the middle inflection can be explained by the fact that you generally repair something for your own benefit. The middle inflection of the near-synonymous ἱδομαι may be analogous to ἄκέομαι. If we do not accept the explanation of ἱδομαι as analogous to ἄκέομαι, the middle inflection becomes somewhat problematic since it is not clear how the meaning 'heal' relates to middle semantics. Healing benefits the healed person, rather than the healer. Quite possibly, the meaning 'heal' developed from an indirect middle meaning such as 'save someone/something (so as to have him/her at one's disposal)', cf. the Homeric middle tantum ῥόομαι 'rescue, protect'.

201 The active *αἰνώμει must have existed in Mycenaean Greek where we find a passive perfect participle a-ja-me-no (ἀγαμένος) 'be inlaid'. The active *αἰνώμει originally may have meant 'provide with'. The middle αἰνώμει, when it was still in opposition with the active form, must have meant 'provide oneself with'.

202 Thematic δέχομαι is the successor to the older athematic verb *δέγμαι, of which forms such as ἐδέγμην, ἐδέγμενος survive in the Homeric language. This athematic 'medium tantum with e-vocalism in the stem possibly belonged to the PIE class of stative middle verbs, cf. also ἐλεύμα 'be clad', κείμαι 'lie'. Likewise, *δέγμαι had a stative meaning 'wait for', e.g. ἀλλ' οἷς τινα φίλα μέγαν καὶ καλὸν ἐδέγμην/ ἐνθάντα ἐλευθερία (1 513) ('But I always waited for a tall and handsome man to come here'). See also note 118.

203 The media tantum that have a meaning 'acquire' can be compared to the indirect reflexive middle πορίζομαι 'furnish oneself with' (cf. active πορίζω 'furnish').
Apart from the indirect reflexive middle with a reflexive pronoun in the dative, we also find indirect reflexive middles in combination with an external (non-coreferential) indirect object. Consider

(51) [Amasis to the Greeks] (...) ἔδωκε χώρους ἐνιδρύσασθαι βασιλεὺς καὶ τεμένεα θεοὺς (Hdt. 2.178.1)

(...) he gave lands where they might set up altars and sanctuaries to their gods.

The primary beneficiaries are the Greeks - the (unexpressed) subject of ἐνιδρύσασθαι - as they can directly and physically dispose of the altars and the cult-places. The gods are the beneficiaries of the cult-places in a more indirect way. Another example of this type of expression is:

(52) [Megabazos leads his army through Thrace] (...) πᾶσαν πόλιν καὶ πᾶν θάνος τῶν ταύτῃ οἰκήμενον ἡμεροῦμενος βασιλέα (Hdt. 5.2.2)

(...) subduing to the king every city and every nation that lived there.

Again, both the subject and the dative-constituent are beneficiaries of the event. The subject of the middle verb ἡμεροῦμενος (Megabazos) exercises an immediate, physical power over the cities he conquers, while the king is only indirectly, more distantly involved. It is worthy of mention that this greater distance on the semantic level is iconically mirrored by the morphological distance. The distal beneficiary is expressed by means of a separate dative-constituent, whereas the proximal beneficiary is coded by means of a bounded inflection.204

So far we have discussed the more typical indirect reflexive construction. Now I wish to mention two additional construction-types that I regard to be subtypes of the indirect reflexive middle. First, the so-called causative middle and, secondly, what I would like to call the perspective-shifting middle.

The term 'causative middle'205 is a very unfortunate one. A typical example is:

(53) ἡ οὖν ἁκήκουσε, ὅτι Θεμιστοκλῆς Κλεοφαντος τὸν υἱὸν ἵππεα μὲν ἐδιδάξατο ἁγαθὸν; (Pl. Men. 93d)

Have you never heard how Themistocles had his son Cleophon taught to be a good horseman?

The subject, Themistocles, is not the actual performer of the event. He is, rather, the initiator of the event since he employs a professional teacher to instruct his son. However,

204 Compare also νιῷ δὲ Σκάμπηθεν Ἀλέκτορος ἠγετο κούρην (5 10) ('but for his son he [= Menelaus] was bringing to his home from Sparta the daughter of Alector'). Apparently, Menelaus, as the patriarch, is seen as the primary beneficiary of the marriage; his son, the actual groom, is only the secondary beneficiary.

205 See e.g. Goodwin (1895: 267), Stahl (1907: 54-5), Smyth-Messing (1920: 392).
as K-G (I: 108) point out (see also Gildersleeve 1900-11: 67), the active verb can be used in a similar way. For example,

(54)  [Pericles had his sons taught] τούτους (…) ἰππέας μὲν ἐδίδαξεν οὐδενὸς χείρος Ἀθηναίοιν, (…) (Pl. Men. 94b)

He had them taught to be the foremost horsemen of Athens, (…)

The fact that both the middle and the active construction convey the same causative meaning leads to the conclusion that the middle inflection itself does not express causativity.206 In fact, any transitive verb can be interpreted as a causative, given the appropriate context. For instance,207

(55)  Κύρον δ' αὐτὸν [= τὸν παράδεισον] ἐξέκοψε καὶ τὰ βασίλεια κατέκαυσεν (Xen. An. 1.4.10)

But Cyrus cut down the park and burned up the palace.

In this type of expression, the intermediate agent that physically performs the action denoted by the verb, is pragmatically irrelevant (non-topical). Its presence can only be inferred on the basis of the hearer’s world-knowledge, namely that the subject-referent himself would not perform the activity. Instead, an anonymous intermediary agent, usually a professional, physically performs the activity.208

The question now remains what the function of the middle inflection in this type of causative clause is. Notice that, in (53), it is Themistocles’ own son who is taught to be an excellent horseman. The subject, Themistocles, is therefore indirectly the beneficiary of the event. For this reason, the middle can be viewed as a subtype of the indirect reflexive middle use.

This brings me to the second subtype of the indirect reflexive middle, which I would like to call the perspective-changing middle. With this middle type, the selection of the subject effects a change of perspective on the event described. For example,

(56)  a. (…) τὸν Θρασύλοχον τῷ Καλλίππῳ μισθώσας τὴν τριπλαρχίαν ἔπεισεν (…) (Dem. 50.52)

(…) he induced Thrasylochos to let his trierarchy to Callipus.

b. (…) μάρτυρας ὡμίν παρέξωμι πρῶτον μὲν τοὺς μεμισθομένους παρ’ ἐμοὶ τὸ Σφηττοῦ χωρίον (…) (Lys. 17.8)

(…) I will produce to you as witnesses first those who have rented the land of Sphetos from me (…)

The active verb μισθῶμ ‘let’ (example a.) is construed with an accusative object that denotes the thing let, and with a recipient-dative that denotes the person to whom

206 See also K-G, I: 108: "Im Medium an sich liegt der Kausativbegriff ebensowenig wie im Aktiv." Compare, conversely, Goodwin’s remark (1895: 267): "The middle sometimes has a causative meaning".

207 For more examples, see K-G, I: 99-100.

208 Thus, the intermediary agent can be compared to a mere instrument. Instruments, too, often remain unexpressed, due to their pragmatic irrelevance. Consider an expression such as The police shot the burglar. The instrument (some kind of firearm) is not expressed here because it is inferrable on the basis of our world-knowledge, and pragmatically unimportant.
something is let. The subject of the middle μισθόματι 'rent' denotes the person that receives the rented object. It corresponds with the dative in the active construction.

Other example of this middle type are (K-G, I: 109):

<table>
<thead>
<tr>
<th>Greek Verb</th>
<th>English Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>δανειζω 'lend'</td>
<td>δανειζομαι 'borrow'</td>
</tr>
<tr>
<td>κίχρημα 'lend'</td>
<td>κίχρημα 'borrow'</td>
</tr>
<tr>
<td>τίνω 'pay'</td>
<td>τίνομαι 'make s.o. pay, punish'</td>
</tr>
<tr>
<td>χράω 'give an oracle'</td>
<td>χράομαι 'consult an oracle'</td>
</tr>
<tr>
<td>ὄνέω (Cretan) 'sell'</td>
<td>ὄνέομαι 'buy'</td>
</tr>
</tbody>
</table>

The lexical meaning of these verbs involves a transfer of an object from one person to another. The middle inflection marks that the subject is a recipient. This type of middle use can, therefore, be considered a subtype of the indirect reflexive middle.211

209 The present κίχρημα is a late formation (first in Demosthenes). It was created as a present form of the older causative aorist ἐχρησάμην 'let s.o. use s.th.' and the middle aorist ἐχρησάμην 'use s.th.', probably by analogy with the pair ἔστημι : ἔστησα (see Chantraine 1968).

210 Like κίχρημα, the present χράω was formed on the basis of the older aorist ἐχρησάμην - ἐχρησάμην. The original meaning of the aorist middle was 'use', from which the more specific meaning developed 'use a god/an oracle' > 'consult an oracle'.

211 Note that the middle verbs involving a change of perspective have a sigmatic middle aorist form, just like the more typical indirect reflexive middles, e.g. ἐδοξασμήν, ἐμπιστευόμην.
2.2 Semantic Feature Analysis

In the previous sections, a classification of the middle usage type was set forth. In order to summarize the description of the middle uses, it might be useful to present an analysis of the essential semantic features that distinguish the middle uses from one another. These semantic features all relate to the subject of the clause. \(^{212}\)

Table 3: The middle uses: semantic feature analysis

<table>
<thead>
<tr>
<th>Aorist form</th>
<th>Subject = Animate</th>
<th>Subject = Agent</th>
<th>Subject = Beneficiary</th>
<th>Subject = Experiencer</th>
<th>Subject = Patient</th>
<th>Subject undergoes Change of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1 Passive</td>
<td>ἐστασθηθεν</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+/-</td>
</tr>
<tr>
<td>2.1.2 Spontaneous Process</td>
<td>ἐγερθηθεν</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>2.1.3 Mental Process</td>
<td>ἑρμηνευθηθεν</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+/-</td>
</tr>
<tr>
<td>2.1.4 Body Motion</td>
<td>ἁμαλλαζηθεν</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>2.1.5 Collective Motion</td>
<td>ἐξερθηθεν</td>
<td>+</td>
<td>+/-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>2.1.6 Reciprocal</td>
<td>ἐμισηθαμηθεν</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2.1.7 Direct Reflexive</td>
<td>ἅλωσωσθαμηθεν</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2.1.8 Perception</td>
<td>ὑγωσωσθαμηθεν</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2.1.9 Mental Activity</td>
<td>ἑλωσωσθαμηθεν</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2.1.10 Speech Act</td>
<td>ἐμπροσθησθαμηθεν</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>2.1.11 Indirect Reflexive</td>
<td>ἐκουσουσθαμηθεν</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

\(^{212}\) It must be noted that these semantic features relate to the typical examples of each middle use. There will always be exceptions and boundary-cases.

\(^{211}\) The numbers refer to the sections in which the uses were discussed.
Fig. 2: Semantic map of the Greek middle voice
2.3 The structure of the network

2.3.1 The Semantic map of the Middle Voice

An important aim of this chapter has been to investigate in which way the middle uses semantically relate to one another. The result of this investigation can be represented by a network structure that consists of nodes representing the different middle uses and of links representing the semantic interrelations. It is possible to represent this network structure graphically. Consider figure 2. The boxes represent the various middle meanings; the lines connecting the boxes represent the semantic relations between the middle meanings. The thickness of the boxes indicates the token-frequencies of the middle meanings (see also section 2.3.2). Each middle meaning is typified by means of a number of distinguishing characteristics. These essential semantic properties are also represented in table 3 above.

The distinguishing features are distributed over the map of the network in the following way. The uses in which the subjects are agents are found on the left-hand region of the map. The uses with patient-subject are found in the lower region of the map. Note that there is a section where the two regions overlap. The experiencer-subjects cover the upper-middle region of the map. Beneficiary-subjects are found in the upper-left region. Uses that involve a change of state can be found in the right-hand region of the map.

One important element of the category is not depicted on the map of the semantic network: the abstract schema. This is due to the two-dimensionality of the written medium. The abstract schema can be thought of as floating above the plain of the various concrete middle meanings. The abstract schema embodies the semantic property that is common to all middle uses, which is subject-affectedness. The various middle uses are connected with the "node" of the abstract schema as elaborations of the schema.

Fig. 3: The Network of the Middle Voice: abstract schema and elaborations

For the purpose of clarity, the semantic network as it was shown in Fig. 2 has been reduced to a one-dimensional form. This form should be thought of as a side-view on the network of Fig. 2. Furthermore, not all middle uses have been depicted. The remaining middle uses are represented in a reduced form by the boxes containing dots. The purpose
of this figure is to show that the complete semantic network of the middle voice has two levels. The first level relates to the various middle uses and their interrelations; the abstract schema, of which the middle uses are elaborations (represented by the arrows), constitutes the second level of the semantic network.

2.3.2 The Category Prototype

In the map as it was given above, all middle uses are regarded as equally important. However, as was expounded in ch. 1, in prototype theory some category members are viewed as 'better' examples of the category than others. The other members are assimilated to a category according to the degree to which they resemble these prototypes. Prototypicality must be thought of as a graded notion. With regard to prototypicality, a category can be compared to a mountain range having summits of various heights. In this section, I will try to assess which of the middle usage types can be considered prototypical. To establish the category prototype two criteria will be used. The first criterion relates to token-frequency. The higher a member's frequency of occurrence, the higher its cognitive salience. The second criterion relates to the centrality of the member within the network. The more relations a member has to other members, the more prototypical a member is.

The token-frequency of the middle uses is given in the following table.
Table 4: Frequency of middle usage types

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>24 (1)</td>
<td>8.0 % (0.3 %)</td>
</tr>
<tr>
<td>Spontaneous Process</td>
<td>35 (14)</td>
<td>11.7 % (4.7 %)</td>
</tr>
<tr>
<td>Mental Process</td>
<td>63 (44)</td>
<td>21.0 % (14.7 %)</td>
</tr>
<tr>
<td>Body Motion</td>
<td>59 (26)</td>
<td>19.7 % (8.7 %)</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>11 (4)</td>
<td>3.7 % (1.3 %)</td>
</tr>
<tr>
<td>Reciprocal</td>
<td>10 (10)²¹⁵</td>
<td>3.3 % (3.3 %)</td>
</tr>
<tr>
<td>Direct Reflexive</td>
<td>3 (0)</td>
<td>1.0 % (0.0 %)</td>
</tr>
<tr>
<td>Perception</td>
<td>3 (1)</td>
<td>1.0 % (0.3 %)</td>
</tr>
<tr>
<td>Mental Activity</td>
<td>9 (5)</td>
<td>3.0 % (1.7 %)</td>
</tr>
<tr>
<td>Speech Act</td>
<td>19 (13)</td>
<td>6.3 % (4.3 %)</td>
</tr>
<tr>
<td>Indirect Reflexive</td>
<td>58 (21)</td>
<td>19.3 % (7.0 %)</td>
</tr>
<tr>
<td>δύναμαι</td>
<td>6 (6)</td>
<td>2.0 % (2.0 %)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300 (145)</strong></td>
<td><strong>100 % (48.3 %)</strong></td>
</tr>
</tbody>
</table>

With regard to token-frequency, three middle uses clearly stand out as candidates for the status of category prototype. These are the mental process middle, the body motion middle, and the indirect reflexive middle. The frequency of the middle meanings is represented in figure 2 by the thickness of the boxes. The second criterion relates to the centrality of the middle use in the network. It can be seen in figure 2 that it is the mental process middle that has the most connections within the network with other middle uses. Especially the fact that it is related to both the indirect reflexive middle and the passive middle - which can be considered the two extreme poles of the category - is a strong argument for taking the mental process middle as the central member of the category.

²¹⁴ A sample of 300 middle verbs from Homer, Herodotus and Aristophanes in order to have both narrative and dialogical texts. From Iliad and Odyssey, of each book two the first occurring middles, of Iliad A through Δ the first three were taken. Likewise, from Herodotus the 11 first occurring middles were taken from every book, plus one extra from book 1. From Aristophanes the first 100 occurring middles from the Plutus were taken. Only present stem middles were taken into account, in order to avoid morphological complications (passive aorists, perfects on -α, etc.). The bracketed numbers relate to the media tantum included. Since the distinctions between the middle uses are gradient, it is not always easy to classify the occurrences. However, I believe that my classification is fairly reliable as boundary-cases constituted only a small minority of the sample. Only the intriguing middle δύναμαι I have not ventured to classify. It is not easy to understand what exactly is the contribution of the middle inflection of δύναμαι ‘be able’. From a synchronical perspective, it would seem that the middle endings have no meaning. C.J. Ruijgh suggests (pers. comm.) to connect δύναμαι with δ(ϕ)ην and δ(ϕ)ηρός (cf. Frisk 1973), and with Latin dūrūs ‘hard’ and dārāre ‘continue, endure’ (root *du(e)h₁, ‘hard’). Δύναμαι (with nasal infix *du-n-h₂), then, originally meant ‘make oneself hard, become hard’ > ‘be hardened, be strong’ > ‘be able, can’. For other proposals, see Frisk (1973), and Rix e.a. (1998). If the original meaning of δύναμαι would be ‘become hard’, then it could be classified as a spontaneous process middle.

²¹⁵ The amount of reciprocals counted is probably not representative, considering that 5 out of 8 of the reciprocal middles counted were verbs of fighting found in the Iliad.
Now if we combine the two criteria it appears that it is, indeed, the mental process middle that most deserves the predicate category prototype.\textsuperscript{216} The indirect reflexive middle, the body motion middle, the spontaneous middle, and the passive middle can be thought of as secondary prototypes - lower peaks in the mountain range.\textsuperscript{217}

\textsuperscript{216} Sicking & Stork (1996), in their brief discussion of the meaning of the middle voice come to a similar conclusion: "It seems, then, safe to conclude that the Middle Voice basically denotes one-place Situations which typically lack the feature 'control' by a human Agent, such as μαίνεται 'he is mad', ἔγειρεται 'he wakes up', ρήγνυται 'it breaks'" (Sicking & Stork 1996: 136). However, they do not distinguish between mental processes and spontaneous processes. For the middle voice in Modern Greek, Manney (2000: 65-7) regards the mental process type (called emotional response by Manney), and the spontaneous process type (Manney's spontaneous change) as the category's prototypes. This confirms one of the main assumptions of diachronic prototype semantics, that the category prototype will display the highest stability through time, whereas most of the diachronic changes occur at the periphery of the category (see Geeraerts 1997).

\textsuperscript{217} It should be noted that the direct reflexive middle appears to be a rather peripheral member of the category. In this respect, the Greek middle voice diverges from the reflexive systems as they are found in modern European languages. In these languages, the direct reflexive type has a more central status within the category, cf. also Kemmer (1993: 146): "The present analysis, (....), takes the spontaneous event type to be a deviation from more basic middle situation types such as the grooming class, which involve volitional initiation and, moreover, identity of Agent and Patient." The crucial difference, however, between the middle voice category in Greek and the modern reflexive systems is the fact that the Greek middle voice also includes the canonical passive, whereas in the languages with reflexive system the canonical passive is mostly expressed by an auxiliary plus participle construction. As a consequence, the centre of gravity of the Greek middle voice is located more in the direction of the passive. This difference between the Greek middle voice and the modern reflexive systems also relates to the morphological status of the middle marker. As was found out by Heine after a survey of African languages (Heine 2000: 5-6), there is a correlation between the form of the middle marker and its meaning. Whereas clitic particles (such as Romance se) tend to express a reflexive meaning (e.g. He saw himself in the mirror), verbal suffixes (cf. Greek middle inflection) tend to express meanings such as grooming, change of body posture, translational motion, emotion, cognition. (These meanings are called middle by Heine (2000: 3-4), as opposed to reflexive, reciprocal and passive.)
CHAPTER 3

The Middle and Passive Voices in the Aorist Stem

3.0 Introduction

Undoubtedly one of the most intriguing features of ancient Greek is the complex voice morphology in the aorist stem. Besides a number of different active formations, we find the middle root aorist, the middle thematic aorist, the middle sigmatic aorist, and the passive aorists in -η- and in -θη-. The aim of this chapter is to describe the distributional patterns of these various aorist formations, and the way in which these patterns have changed from Homer to the Classical language.

The distributional patterns of the aorist formations can be employed to corroborate the structure of the network described in chapter 2. In chapter 2, the analysis of the structure of the network was based chiefly on semantic criteria. A semantic relation between two given middle uses was assumed if these middle uses had certain salient semantic features in common. The aim of chapter 3 will be to find morphological and diachronical evidence that supports the semantic analysis of chapter 2. In section 1.2.2, it has been set out that this morphological and diachronical evidence hinges on two claims, namely:

(I) A form will always cover a connected region of variant middle uses in the semantic network.

(II) A form will only spread from one variant use to another if these uses are directly semantically related.

I stated that these claims can serve as an empirical tool to test the accuracy of our network structure. Two predictions can be derived from these claims. First, every single aorist formation should cover a contiguous region of middle uses in our network. Second, extensions of the aorist forms should follow the connected paths through the semantic network.

In this chapter, I will focus on two morphological oppositions: (i) the opposition between the passive aorist form in -η- vs. the form in -θη- (section 3.1), and (ii) the opposition between the sigmatic middle aorist vs. the passive aorist forms in -η- and -θη- (section 3.2). The distributions of the formations at issue will be described, both in Homer and in Classical Greek. Special attention will be devoted to those verbs that exhibit a variation between two (or more) aorist formations. Additionally, I will briefly discuss the root and thematic aorist forms (3.2.4). Finally, an attempt will be made at a definition of the abstract schema of the passive aorist form (3.3).
3.1 The Distribution of -η- vs. -Θη-

3.1.1 The Distribution of -η- vs. -Θη- in Homer

In Homer, the **passive aorist in -Θη-** occurs in the following meanings:\(^{218}\):

<table>
<thead>
<tr>
<th>Passive</th>
<th>E.g.</th>
<th>'was hindered, harmed', 'been done'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous process</td>
<td>ἀστάθησαν 'disappeared', ἔξηρόθη 'dried up', ίόνθη 'became warm'</td>
<td></td>
</tr>
<tr>
<td>Mental process</td>
<td>χολώθη 'became angry', μνημήνας 'have remembered'</td>
<td></td>
</tr>
<tr>
<td>Collective motion</td>
<td>ἀγύρθη 'gathered (intr.)', ἀλλίσθησαν 'gathered (intr.)', μίχθη 'mingled'</td>
<td></td>
</tr>
<tr>
<td>Body motion</td>
<td>ἐκινήθην 'moved', εὐνήθην 'went to bed', ἐστάθη 'stood up', ἀφίμηθη 'set off'</td>
<td></td>
</tr>
</tbody>
</table>

The **passive aorist in -η-** occurs in the following meanings:\(^{221}\)

---

\(^{218}\) For an inventory of the attested forms in Homer, as well as in a number of classical authors, I refer to Prévoit (1934). The strange form ὰτρινήθην (Π 756) is often interpreted as a passive aorist of δηρίματα (Chantraine 1958: 404). If this is correct, it would be the only passive aorist form with reciprocal meaning. Furthermore, the inserted -v- is problematic. Janko proposes to read δηρίν θήτην (see Kirk e.a. 1985-93).

\(^{219}\) With regard to Homer, only actually attested forms are cited.

\(^{220}\) Two instances in Homer: (i) πορφύρεον δ' ὁμα κύμα περιστάθη, οὐρέει ἤσον (λ 243) ('And the dark wave stood about them like a mountain'); (ii) δ' ἐστάθη ἢτε πέτρα/ ἐμπέδον (ρ 463) ('But he stood firm as a rock'). Ruijgh suggests that σταθὲ- contains the extended root σταθ-. This root is also found in σταθ- ἐρὸς 'stable (adj.)' and σταθ- μῶς 'standing place, dwelling, stable (noun)'. This root extension must be of a considerable age, witness Latin stabilis 'stable (adj.)' and stabulum 'stable (noun)'. He further hypothesizes that the passive suffix -Θη- arose by metanalysis of this formation σταθ-η- as στα-Θη- (see Ruijgh 1996: 187n75).

\(^{221}\) The attested forms are collected in Risch (1937: 220-1), and Van de Laar (2000: 413-5).
The two passive forms occur in the same meanings. There are, however, differences in frequency, as we shall see below. The question is what factors may explain why some verbs have the aorist in -η- while others have the form in -θη-. To get an idea of the different distributions of the two forms, it is useful to consider first the following tables.

222 Τραφη- probably replaced the older intransitive thematic aorist έτραφον.

223 Possibly also λίπεν (v.l. Π 507) and διατρυφῄν (Γ 363). Ruijgh (2000: 346) suggests that the anomalous aorist βίωνει may belong to this group: βιω- < *g'iyō- < *g'iyh₁,eh₁-. This analysis would also be in harmony with its spontaneous process meaning which can be paraphrased as 'enter the state of being alive, come alive'. Possibly also ἐσθη 'was quenched, went out', originally a root aorist (*sg'es-t, see Risch 1937: 209), was felt to be a passive aorist form given its spontaneous process meaning.

224 From ἔλλω/ εϊλέω, e.g. κέλεις κατὰ άστυ ἀλήμεναι σπότις ἰόντας (Σ 286) ('you ask us to go back and throng together inside the city'), see also ΛfgE, s.v. εϊλέω (I 1a).

225 E.g., το γ' ὡς βουλεύοντας διέτμηγεν (Α 531) ('When the two had taken counsel in this way, they parted').

226 E.g., ὡς τὰ πρῶτα ἐμίγησαν ἐν Ἡφαίστεωι δόμοις (Θ 268) ('how first they layed together [lit. mingled] in the house of Hephaestus').

227 Ἐκλῆ (ἔλλω) is the only example that I am aware of. The verb ἔκλη sometimes denotes a volitional action 'contract one's body, draw oneself together', e.g. ὡς εἰπὼν Ἀχιλῆσα ὀλείς μένει (Φ 571) ('so saying he crouched to await Achilles'), cf. also N 408, Π 403, Y 168, Y 278, X 308 = ω 538. However, the more frequent meaning of ἔκλη (and ἔκλομαι) is 'throng together' (collective motion).

228 Prévot (1935) advocates an aspectual distinction between the two formations: "L'aoriste en -ην exprime une idée générale d'état (aspect indéterminé). L'aoriste nouveau en -θην, d'un sens plus précis, exprime la production du fait, l'événement (aspect déterminé)" (Prévot 1935: 25). Since this definition of the alleged distinction is rather vague, his analysis of the data remains far from convincing. Some critical remarks can also be found in Rosén (1962: 132-4).
Table 1: *The semantic distribution of the passive aorist in* -Θη- *and* -η- *in Homer*

<table>
<thead>
<tr>
<th>Passive</th>
<th>Θη</th>
<th>η</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous process</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Mental process</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Collective motion</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Body motion</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>34</td>
</tr>
</tbody>
</table>

Table 2: *The morphological distribution of the passive aorist in* -Θη- *and* -η- *in Homer*

<table>
<thead>
<tr>
<th>Polysyllabic stem</th>
<th>Θη</th>
<th>η</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem in vowel</td>
<td>41</td>
<td>0</td>
</tr>
<tr>
<td>Stem in -σ</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>Heavy monosyllabic stem&lt;sup&gt;229&lt;/sup&gt;</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>e-vocalism</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Stems (C)CαC-, (C)CιC-, (C)CοC-</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

I have taken a sample of 100 tokens of aorist forms in -η- and -Θη-<sup>230</sup>, of which 66 turned out to be in -Θη-, and 34 in -η-. This set of 100 instances was analyzed with regard to their semantics, and a number of their morphological features<sup>231</sup> It should be noted that these features relate to the passive aorist stem allomorph. In other words, they relate to the stem variant after which the suffixes -η- or -Θη- are placed.<sup>232</sup> Now what can we learn from these figures? With respect to their meaning (see table 1), it can be observed that the formation in -η- prevails in the spontaneous use; in the body motion use the

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<sup>229</sup> With the term *heavy* is meant a syllable structure /CVC/ or /CVCC/.

<sup>230</sup> From the first 4 books of the Iliad the first three occurring passive aorists were taken, from the remaining books of the Iliad and Odyssee the first two occurring forms were taken.

<sup>231</sup> Note that the figures in the vertical columns of Table 2 do not add up to 66 or 34. This arises from the fact that most of the forms analyzed were dealt with more than once, as they possessed more than one of the features. For example, κνιν-Θη has a stem which ends in a vowel, and which is polysyllabic.

<sup>232</sup> For example, the form *ε-τά-Θην* has a passive stem allomorph τα-. Neither the form of the present stem τείν-, nor the root τείν- is relevant for my purposes.
formation in -θη- predominates (21 vs. 0). In the table that relates to morphological features, a number of very strong tendencies can be seen. The formation in -θη- tends to occur with

(i) **polysyllabic stems** (41 : 0), e.g. θωρηχθηναι, πημάνηθη.\(^{233}\)
(ii) **stems in a vowel** (31 : 2), e.g. δηθέντα, ταθείς.\(^{234}\)
(iii) **stems in -α-** (9 : 1), e.g. νάσθη, δαμάσθην.\(^{235}\)

The features **heavy monosyllabic stem** (e.g. πλάγχθη, χρίμφθη, πηλθεν\(^{236}\)), and **ε-vocalism** (e.g. ρέχθεν, περιπλέχθη, στρεφθείς) have, according to the table, a slight predilection for the aorists in -θη-. Many forms have both features, e.g. ἔρχθείς, θέλχθη. It must be noted, however, that the table regards token frequency. Qua types, this predilection is much stronger. There are only a few passive aorist forms with heavy stem syllables or ε-vocalism that have the suffix -η-. These are θερέα (subjunctive), τερσημεναι, τάρσημεν, and πλήγη. Apart from πλήγη (to be discussed below), these exceptions can be explained easily by assuming an analogy with their present stems θέρομαι, τέρσομαι and τέρσομαι. The original forms with zero-grade must have been *θαρ-η-, \(^{237}\) *τρασ-η- and τραχ-η- (cf. τραπείομεν). The former pair took the e-grade, the latter form took the position of the -ρ- from their presents. In sum, we can safely add two rules to those mentioned above. In Homer, the aorist in -θη- occurs with

(iv) **heavy monosyllabic stems**, e.g. πλάγχθη, χρίμφθη, πηλθεν;
(v) **stems with ε-vocalism**, e.g. ρέχθεν, περιπλέχθη, στρεφθείς.

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\(^{233}\) Most polysyllabic stems are denominative verbs. For example, πημ-άν-θη (πημαίνω), derived from πήμα. There are no exceptions to the rule that polysyllabic stems have -θη- in Homer. In Classical Greek, only (άπ)-αλλαγ-η- occurs.

\(^{234}\) The few exceptions to this rule, ἔδώη, ἐκάη and ρώη, can be explained historically. The former two originally had a consonant (*δάθ-η- and *καθ-η-), the latter probably had a phonetic glide (*στρυ-ε-). Incidentally, I would like to refer to a form μιχ 'be defiled', a 3rd sg. subj. passive aorist, occurring in a Cyrenaean inscription (see Buck 1955: 311). It could be an old form (*μιθ-εθ, > μια-), of which the original meaning may have been *'become stained' (i.e. a spontaneous process). The form that is found elsewhere is εμιμάνθην.

\(^{235}\) The one form with stem in -α- and suffix -η- is τερσ-η-. It is probably based on an archaic form *τρασ-η- (the ε-vocalism is analogical). This would semantically fit in well since its original meaning 'dry up' is a spontaneous physical process - the prototypical meaning of the formation in -η-. The aorist forms with stems in -α- include the verbs with roots in dentals (e.g. ἔφρασθη), and the present in -άξω, -άκω. A number of forms, such as δαμά-α-θην, has an analogically inserted -α-.

\(^{236}\) Clearly a secondary form, analogically after πήγνυμι, ἔπηξα and πηκτός. Incidentally, πήγνμι and πηκτός, in their turn, are probably influenced by their antonyms δήγνμι and δηκτός (both regularly from zero degree *wrh,g-). Regular forms would be *πήγνμι and πηκτός (preserved in πηκτόω).

\(^{237}\) *Θαρ-η- from *g-τρ-ε- (Lindeman's Law), cf. χαρ- (see Ruijgh 1996: 366).
As to the stem with a phonological structure \((C)C\alpha C\), \((C)C\iota C\), \((C)C\delta C\), a tendency can be observed to occur with the suffix \(-\eta\) \((24:7)\). This predominance of \(-\eta\) is partly due to the following rule. In Homer, the formation in \(-\eta\) occurs with

\[(vi) \quad \text{stems of the structure } (C)C\alpha \lambda-, (C)C\mu-, (C)C\rho-.\]

Although in Homer only the forms ἐδάλη, ἐδάμη and ἔχάρη\(^{239}\) occur, there is no evidence against this rule. In Classical Greek, this rule is also operative (see below).\(^{240}\)

Above, a number of morphological rules (i-vi) were formulated that determine the distribution of the two passive aorist formations. However, there is a group of forms that cannot be explained by means of these morphological rules. These are the forms that possess a stem with the structure \((C)C\alpha C\), \((C)C\iota C\), and \((C)C\delta C\). The question remains to be answered as to what factors determine the aorist of these remaining stem forms. I would suggest that these forms can be explained by a semantic factor. This semantic factor can be summarized by two rules:

(1) Forms that denote a spontaneous process have \(-\eta\)\(^{241}\);
(2) Forms that have a passive meaning or denote body motion have \(-\theta\eta\).

Consider the following table:

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\(^{238}\) One might hesitate to include stems \(-\alpha \nu\) in this rule. The only example in Homer, φάνη, can also be explained by semantic factors (spontaneous process; see below). A further reason not to include stems in \(-\alpha \nu\) here might be that, in the Classical language, stems in \(-\alpha \nu\) do not always take the passive form in \(-\eta\), cf. ἔφάνηθυν, ἔρράνθην (see next section).

\(^{239}\) ἔχάρη has two alternative forms with, apparently, the same meaning, κεχάροντο and χήρατο. The former may well be old; the latter is either analogically formed to present χαίρω (cf. ἔκαθηρα to καθαίρω), or - more speculatively - a Mycenaean relic (cf. Arc. φθήρω vs. Ion. φθείρω). The regular Ionic form should have been *χέραστο or *χείραστο.

\(^{240}\) An apparent exception is ἀρθεῖν (from ἀραρίσκω). However, there may have been a rule that stems with the structure \#\(\Upsilon\)C- receive the suffix \(-\theta\eta\). In Classical Greek, there are more examples that corroborate this rule (see below). Ἀρθεῖς from αἰρω probably has a long vowel (< *ἀρεῖοι>.

\(^{241}\) The spontaneous process use can be considered the semantic prototype of the aorist in \(-\eta\). Note that this was probably also the original meaning of the formation before it spread to the passive meaning and the body motion meaning (in Homer only ἐδάλη). There is some controversy as to the meaning of the suffix \(-\delta h_{i}-\) in PIE. Was it stative or fientive? The alignment of the formation with the aorist stem in Greek argues in favour of the latter option, as recently advocated by Harðarson (1998). According to Harðarson, the formations with stative meaning found in the daughter-languages (e.g. Latin rub-ère "be red") go back to a yod-present in *-(e)h₁-yéð- that is derived from the aorist in \(-h_{i}-\). Ruijgh explains the suffix \(-\eta\) from a complex suffix *-\(\eta\)-σ- (cf. the Hittite fientive formation in \(-ëë-\)), of which the \(-\sigma\) can be identified as the aorist suffix. The combination *-\(\eta\)-σ- designated the transition to a state. The \(-\sigma\) disappeared after the reinterpretation of 2\(\text{nd}\) sg. forms like πάγης (< *παγ-\(\eta\)-σ) as παγ-\(\eta\)-ς. This led, in turn, to the replacement of 3\(\text{rd}\) sg. πάγης (*παγ-\(\eta\)-ς) by πάγη (see Ruijgh 1996: 187-9, 366-7). A comparable development is found in 3\(\text{rd}\) sg. σβήν, which, according to Risch (1937: 209), must go back to *σγ\(\epsilon\)σ-τ.
Spontaneous Process
έαγη 'broke (intr.)'
έπάγη 'got stuck'
-ράγης 'broke (intr.)'
έκάθη 'burnt (intr.)'
ρή 'flew'
σαπή' 'rotted'
τράφη 'grew up'
φάνη 'appeared'

Passive
φρομέθεις (φράσσω) 'be fenced'
έτυχθη 'be done'
δρώφθη 'be scratched'
κρίνθη 'be chosen'
κρύφθη 'be hidden'

Body Motion
κλίνθη 'bent aside'
τράφθη (τρέπω) 'turned (intr.)'.

These forms are not determined by one of the morphological rules (i-vi). It can be observed that forms that denote spontaneous processes have the suffix -η-, whereas forms that are passive or denote body motion take the suffix -θη-. The working of these semantic rules can be illustrated by the stems in -αγ- and -αρ-. The spontaneous process verbs have -αγ-η- (έαγη, έπάγη, -ράγη), whereas the one form with passive meaning has the suffix -θη-: φρομέθεις (έγχθη- from ἀγω not attested in Homer). Likewise, the form σαπ-η- designates a spontaneous process, while τραφ-θη- (τρέπω) designates body motion (see for this form also section 3.2.1). These semantic rules are also reflected in the frequency figures in Table 1. In the table, we can see that passives (19 : 9) and body motions (20 : 0) more often take the suffix -θη-, whereas spontaneous processes prefer -η- (14 : 10).

The mental process meaning and the collective motion meaning have not yet been considered. Mental processes can have both the suffixes -θη- and -η-. Most fall under the morphological rules (i-vi), e.g. χολωθή [stem in vowel], μηθήνατ [stem in -σ-], and ἐχάρην [stem in -αρ-]. The two forms that cannot be explained by these morphological rules, ἐδάνην and τάρπην, may predate the emergence of the aorist in -θη-. As to the collective motion verbs, it appears - though there are very few forms attested in Homer - that they can have both the form in -η- and in -θη-. The only examples are ἐμίγην and μίχθη (or μείχ-) 'I mingled', and τύμαγη 'divide oneself, part'.

It is but a small number of verbs in Homer that cannot be explained by the morphological and semantic factors set forth above. Notable exceptions are the aorists in -

242 The form -ράγ-η- (ρήγγυμι) must have been adapted by analogy with (φ)αγ-η- ((φ)άγνυμι). The regular development would have been *(φ)ρομ-η- from *wrh₃g-eh₃.

243 In spite of their stem forms (ending in a vowel and a heavy syllable, respectively), they have the suffix -η-. Above, I gave a historical explanation: their original stems were *δας-η- and *τρασ-η-. Alternative middle forms to these passive formations exist, apparently with the same meaning (at least, a semantic nuance is not distinguishable): δεδαέθαι (with active causative δεδάεσθαι); ταρόμεθα, ταταρώμεθα, τεταρώμεθα. The reduplicated formations are probably old. The sigmatic actives with causative meaning are relatively recent, and so are the sigmatic middles that have been derived from them. The occurrence of the suffix -η- with verbs expressing mental events is probably old. Evidence is the formation PIE *wid-eh₃- ('see'; hence 'have in mind, know') that can be reconstructed on the basis of Lat. videre 'see', OCS. videti 'see', and perhaps Greek ἰδεμεν < *η-ιδ-ε-μεν < *-wid-eh₃- (Ruijgh 1996: 194). Another very old formation might be PIE *mng-eh₃- as in ἐμίγνην 'raged' (not attested in Homer), and OCS. 3 pl. minē-ḏg 'they believed' (see Rix e.a. 1998).

244 The form ἐάλη 'thronged together' cannot be used as evidence here, since it falls under the morphological rule (mentioned above) that stems in -αλ- take the form in -η-.
η- that have a passive meaning, and do not fall under the morphological rules (i-vi): ἐβλαβήν, ἐτύπη, πλήγη, ἀναβροχέν. For these cases, I would like to give a tentative explanation. The passive forms ἐβλάβη, ἐτύπη and πλήγη may have been formed by analogy with verbs expressing violent, destructive events such as -ράγη, διατρυφέν, ἔδόμη (cf. also post-Homerīc ἔκόπην?). The form πληγ-η is exceptional in another respect. After all, one would expect a form in -θη- (e.g. πλάγχθη) for heavy stem syllables. Perhaps *πλάγ-η− (< *πλάγ-γ-) was influenced by the verbs with aorist stems in -σγ-, e.g. ἑγγ-η−, ραγ-η−, παγ-η−. Not surprisingly, in later Greek the anomalous form πληγ-η is sometimes replaced by synchronically more regular forms. Thus, the compounds ἐκπληγίναι and ἐκπληχθήναι (only E. Tr. 183) occur, used in the special meaning 'to be stricken with terror'.

There are two variant forms: βλαβή- and βλαφθη-βη-. The former is probably older. In Homer, βλαφθη- is more frequent, but that could be due to the demands of the hexameter. In Classical Greek it is somewhat less frequent. How can this alternation be explained? I would suggest the following explanation. Βλαβ-η- might have originally designated a spontaneous process 'got stuck, stumbled'. There are a number of instances with this meaning in Homer. For example,245

(1) αὶ δὲ ποι ἀυτόν ἐβλαβεῖν ἐν πεδίῳ, αἱ κείσε γε φέρτεραι ἦσαν (Ψ 461)
And the other [mares] have stumbled out there in the plain, they that were superior up to that point.

Subsequently, the βλαβ-η- acquired a true passive meaning 'was hindered, harmed'. This, in turn, led to the creation of the alternative form in -θη-. Eventually, the semantic contrast became faint, and the two variants could be used both in the spontaneous meaning and in the passive meaning.

The following table roughly summarizes the distribution of the forms in -η- and -θη- in Homer:

Table 3: The distribution of the passive aorists in -η- and -θη- in Homer

<table>
<thead>
<tr>
<th></th>
<th>Spontaneous Process</th>
<th>Passive Body Motion</th>
<th>Collective Motion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysyllabic stem</td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stem in vowel</td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stem in -σ-</td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Heavy monosyllabic stem</td>
<td>θη</td>
<td>θη</td>
<td>-</td>
</tr>
<tr>
<td>ι- vocalism</td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stems (C)Cαλ-, (C)Cαμ-, (C)Cαρ-</td>
<td>η</td>
<td>η</td>
<td>η</td>
</tr>
<tr>
<td>Remaining stems (C)CαC-, (C)CιC-, (C)CοC-</td>
<td>η</td>
<td>θη</td>
<td>η-θη</td>
</tr>
</tbody>
</table>

245 Cf. also Ψ 545.
In this section, I have also discussed the exceptions (e.g. βλαβ-η-, πληγ-η-) to this distributional pattern. I tried to explain most of the exceptions either by their historical background or by occasional analogical processes.
3.1.2 The Distribution of -η- vs. -Θη- in Classical Greek

In the previous section, we have seen that distributions of the aorist in -η- and the aorist in -Θη- in Homer could be explained by a number of morphological rules, and a number of additional semantic rules. To get an idea of the distribution of the two passive aorist formations in Classical Greek, some figures may once again be helpful.\textsuperscript{246}

Table 4: The semantic distribution of the passive aorist in -Θη- and -η- in Classical Greek

<table>
<thead>
<tr>
<th></th>
<th>Θη</th>
<th>η</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Spontaneous Process</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Mental Process</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Body Motion</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>10</td>
</tr>
</tbody>
</table>

The token-frequency of the passive in -η- has decreased clearly (10 : 90) compared to that in Homer (34 : 66). As in Homer, the typical use of the formation in -η- is the spontaneous use (5 instances out of 10). The formation in -Θη- is relatively infrequent in the spontaneous use (6 out of 90).

\textsuperscript{246} The sample of 100 instances was taken from Herodotus: from the first book the 12 first occurring passive aorists were taken, and from the remaining books the 11 first occurring instances.
Table 5: The morphological distribution of the passive aorist in -θη- and -η- in Classical Greek

<table>
<thead>
<tr>
<th></th>
<th>θη</th>
<th>η</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysyllabic stem</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>Stem in vowel</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>Stem in -σ</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>Heavy monosyllabic stem</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Ε-vocalism</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>Stem #VC-</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Stems (C)CαC-, (C)CίC-, (C)CόC-</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

A number of morphological rules can be inferred from the figures. As in Homer, the aorist in -θη- occurs with the following stems:

(i) polysyllabic stems;
(ii) stems in vowels;
(iii) stems in -σ-;
(iv) heavy monosyllabic stems;\(^{247}\)
(v) stems with ε-vocalism.\(^{248}\)

As in Homer, there is a tendency for stems of the structure (C)CαC-, (C)CίC-, (C)CόC- to occur with the aorist in -η-. As in Homer, the form in -η- occurs with

(vi) stems of the structure (C)Cαλ-, (C)Cαμ-, (C)Cαρ-.\(^{249}\)

For example, ἐστάλην (στέλλω), ἐσφάλην (σφάλλω), ἐδώμην\(^{250}\) (δάμνημι), ἐδάρην (δέρω), ἐκάρην\(^{251}\) (κείρω), ἐπάρην (πείρω), ἐσπάρην (σπείρω), ἐφθάρην (φθείρω).

\(^{247}\) E.g., ἀνεσάθην, ἀλήθην/ελάμφην, and the novel form ἐτήκην (Eur., Pl.), formed under influence of the present and the active aorist forms. The form ἐτήκην is the only exception.

\(^{248}\) E.g., ἐδρέφην (τρέψω), ἐπλέχθην (πλέκω), ἐστρέφθην (στρέψω), ἐτρέφθην (τρέψω). There are a few exceptions: ἐλέγην (from λέγω 'gather'), ἐστέρην, ηγγέλην (E. IT 932). These forms are, however, less common than the variant forms in -θη-, ἐλέχθην, ἐστερήθην, ἡγγέλθην. Ἐλέγην and ηγγέλην are younger than the variants in -θη-.

\(^{249}\) The - at least partial - productivity of these rules is shown by the replacement of the old thematic aorist ἐπταρον 'sneezed' (πτάρνυμαι) by the aorist in -η- ἐπτάρην (Arist. Pr. 887\textsuperscript{a}35, Hippocr.)

\(^{250}\) Ἐδώμην is Homeric and poetic. Attic prose has ἐδομάθην (Xen., Isocr.).

\(^{251}\) The form κερθείς (with -ε- from κείρω, ἐκείρα or older ἐκερα) is found at Pl. P. 4.82 (cf. rule v).
Table 6: The distribution of the passive aorists in -η- and -θη- in Classical Greek

<table>
<thead>
<tr>
<th>Polysyllabic stem</th>
<th>Spontaneous Process</th>
<th>Passive Body Motion</th>
<th>Collective Motion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stem in vowel</td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stem in -σ-</td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Heavy monosyllabic stem</td>
<td>θη</td>
<td>θη</td>
<td></td>
</tr>
<tr>
<td>ε-vocalism</td>
<td>θη</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stems #VC</td>
<td>θη</td>
<td>θη</td>
<td></td>
</tr>
<tr>
<td>Stems (C)Cαλ-</td>
<td>η</td>
<td>η</td>
<td></td>
</tr>
<tr>
<td>Stems (C)Cαμ-</td>
<td>η</td>
<td>η</td>
<td></td>
</tr>
<tr>
<td>Stems (C)Cαπ-</td>
<td>η</td>
<td>η</td>
<td></td>
</tr>
<tr>
<td>Stems (C)Cαφ-</td>
<td>η</td>
<td>η</td>
<td></td>
</tr>
<tr>
<td>Remaining stems</td>
<td>η</td>
<td>θη</td>
<td>η/θη</td>
</tr>
</tbody>
</table>

A number of exceptions to this pattern have already been discussed in this section. In the next section, I will discuss those verbs that show a variation between the two aorist forms.

3.1.3 Morphological variation

In the previous section I have set forth the morphological and semantic principles that determine the distribution between the aorist in -η- and the aorist in -θη-. However, the boundary between the two formations is not entirely clear-cut. Many verbs exhibit a variation between the two forms. The aim of this section is to take a closer look at those variant forms that are not covered by the morphological and semantic rules that were proposed in the previous section.262 In most cases, the variation can be attributed to a conflict between the morphological rules and the semantic rules. Generally, the alternative form that is not expected on the basis of the aforementioned rules occurs less frequently, or even only sporadically. Additionally, stylistic factors may be relevant. In comedy there is a statistical preference for the form in -η- for verbs that show variant aorists, while tragedy prefers the forms in -θη-.263 Here follows an inventory of the verbs that display morphological variation.264

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262 In other words, variant forms such as ἔστραφθην vs. ἔστραψθην will not be discussed since they can be explained by rule (v) and rule (vii), respectively.

263 This can be concluded from the figures given by Lautensach (1911: 228). He collected the forms that occur in a metrically equivalent environment. With the stems in labials and gutturals, the ratios are as follows: -η- tragedy 58x, comedy 29x vs. -θη- tragedy 69x, comedy 13x.

264 The verbs are collected by Prévot (1934: 24 [Homer/Herodotus], 45-6 [drama], 63 [Plato]).
• ἀπελλάγην vs. ἀπελλάξθην (ἀπαλλάττω). Since these forms have polysyllabic stems, the meaning of these forms is 'depart' (body motion) or 'be removed' (passive), the passive aorist form in -θη- is to be expected according to our rules. However, in Attic several stems in -σγ- show morphological variation, for example, ἀπηλλάγην, ἐμάγην (only in Plato), ἐσφάγην, and ἐτάγην (once in the comic Phrynichus. The regular form is ἐτάχθην). Outside Attic we find forms in -οθ-.

• ἐβάψθην vs. ἐβάψθην (βάπτω). According to the rule stating that stems in -αφ- take a passive in -η-, ἐβάψθην is the regular form (vii). Βαφ-θη- only occurs at Ar. Fr. 416 [ἀπεβάφθη], and might be explained by the strong association of passive meaning with the form in -θη- (see table 4: 54x -θη- vs. 2x -η-). There may also have been an analogy with βλάπτω: ἐβλάφθην = βάπτω : X.

• ἐξύγην vs. ἐξεύχθην (ζεύγνυμι). The latter form is regular because it has a stem with a heavy syllable. It occurs more frequently. However, it does not occur in comedy, which may suggest that ἐξεύχθην is of a higher register (cf. Lautensach 1911: 255). Ἐξύγην was probably formed by analogy with μείγνυμι: ἐμείχθην : ἐμίην = ζεύγνυμι : ἐξεύχθην : X (= ἐξύγην).

• ἐθλίβην vs. ἐθλιφθην (θλίβω). Since these forms have a passive meaning 'was squeezed, compressed', the latter form is in accordance with the semantic tendency. It is attested slightly earlier (in Plato, whereas the former appears in Aristotle). The aorist in -η- was probably formed by analogy with ἔτριβην: ἔτριφθην, which is both phonologically and semantically similar.

• ἐκάνην vs. ἐκαύθην (καίω). After the disappearance of the ψ, the stem ended in a vowel. Ἐκαύθην was formed in accordance with the rule which states that stems in vowels get the -θη- form. However, the older variant did not disappear.

• -ἐκλίνην vs. ἐκλίν(ψ)θην (κλίνω). The passive form is either volitional 'lie down' or passive 'be lain down', so the suffix -θη- is regular. Originally, -ἐκλίνην (only in compounds) was probably a somewhat colloquial variant (as mentioned above, the comics prefer the variant form in -η-) since it is attested first in Aristophanes and Pherecrates, then also Plato. Elsewhere the older ἐκλίν(ψ)θην occurs. The more recent variant is possibly formed by analogy with forms like ἐφηνα: ἐφάνην = ἐκλίνα : X (= ἐκλίνην).

• ἐκόπην vs. ἐκόψθην (κόπτω). The passive meaning favours the latter form. Ἐκόπθην however, is post-Classical. Ἐκόπην may have been created by analogy with the synonymous forms ἐπλήθην and ἐτύπην (see section 3.1.1). Furthermore,
it is possible that the rule which states that stems in -απ- take -η- (rule vii) spread incidentally to this stem in -οπ-.

- ἐκρόφην vs. ἐκρύφην\(^\text{266}\) (κρύπτω). The former occurs only at S. Ai. 1145, whereas the latter is highly common (Hom., Aesch., Soph., Hdt., Eur., Th., Ar.), and it is also the form we would expect considering its passive meaning. The occurrence of ἐκρύφην is possibly due to an analogy with the verbs with passive aorist stems in -αφ-, e.g. ἀπόπτω : ἐρράφην.

- ἐμάγην vs. ἐμάχθην (μάττω). The former occurs once in Plato (Thet. 191d), the latter is post-Classical. On the basis of their passive meaning ('was kneaded'), the latter is to be expected, but see under ἄπηλλάγην above.

- ἐπλάκην vs. ἐπλέχθην (πλέκω). Although the latter is attested earlier, in Homer, it is probably more recent, considering its ε-vocalism (which, in turn, explains the suffix -θη- (rule v)). Both variant forms can have a passive meaning 'be entangled, intertwined', as well as a volitional meaning 'entangle oneself, embrace' (body motion or collective motion?). ἐπλάκην may be absent from Homer because it only fits into the hexameter with difficulty. In Classical Greek, it is more frequent than ἐπλέχθην. The ε-vocalism of ἐπλέχθην must have been introduced under the influence of πλέκω or ἐπλέξα.

- ἐρρίφην vs. ἐρρύφην (ρύπτω). A priori, one would expect the form to be in -θη- since the verb stem is heavy. However, both forms are found and roughly with the same frequency. The secondary -φ- of ἐρρίφην, which was taken from ἐρρύφην (Duhoux 2000: 381n3), or from perfect ἐρρύφηα (C.J. Ruijgh, pers. comm.), is an indication that it is more recent. It is possible that the verb was influenced by the verbs having passive aorist stems in -αφ-η-. This rule might also be responsible for the highly marginal aorist form ἡλιφήν- (only once, in Pl. Phdr. 258b; ἠλείφθην first attested in Aeschylus). Further, an analogy with the pair ἀπόπτω : ἐρράφην could have played a role.

- ἐστέρην vs. ἐστερήθην (στερέω). The former only appears in Euripides, and is possibly a backformation of the regularly formed future στερήσωμαι. According to Ruijgh (1991: 119n32), this might be an old form, evolved from *strh₁-έθι-.

- ἐσφάγην vs. ἐσφάχθην (σφάζω). The former occurs in Aeschylus and Euripides. Considering the passive meaning of the forms, ἐσφάχθην is to be expected. See further under the heading ἄπηλλάγην above.

- ἐτάγην vs. ἐτάχθην (τάττω). The former is attested only once, namely in the comic poet Phrynicus, whilst the latter form shows a high frequency. Above, it has been

\(^{266}\) Ἐκρύφην is late, though mss. Eur. Supp. 543 have κρυβήσωμαι, also printed by Diggle. The increase of passive forms with stems in velar and labial voiced stops is a typical post-classical phenomenon (see Blass-Debrunner-Rehkopf 1979\(^\text{15}\): 60, Ruijgh 1991: 480n8), e.g. ἔθροβην, ἐφυγην.
noted that in comedy a tendency exist to use the forms in -η-. See further under ἀπηλλάγην above.

- έταφην vs. ἐθάφθην (θάπτω). The latter form violates the rule which states that stems in -αφ- have aorists in -η- (vii). It occurs only very infrequently and is clearly more recent, considering the absence of aspirate dissimilation ('Grassmann'). It was probably created by analogy with ἐβάφην : ἐβάφθην, or with βλάπτω : ἐβλάφθην.

- ἐτρίβην vs. ἐτρίφθην (τρίβω). We would expect the latter form since the stem is heavy (cf. τρίβω). Ἐτρίβην, however, occurs more frequently and is probably older (see Ruijgh 1991: 480). Possibly, ἐτρίβην originally referred to a spontaneous process 'waste away, wear out (intr.)', whereas ἐτρίφθην has a strictly passive meaning 'be rubbed, be worn out'. In historical Greek, however, this semantic distinction had disappeared. The -τ- must be analogical, possibly by analogy with verbs like *τάκω : ἐτάκην = τρίβω : Χ (>> ἐτρίβην).

- ἡγγέλην vs. ἡγγέλθην (ἀγγέλλω). The former occurs only at E. IT 932, and in an inscription (P. 78.19 [ca. 422 BC.]), see Threatte 1996: 557), whereas ἡγγέλθην is very common, and regular - it is polysyllabic (rule i) and it has e-vocalism (rule v). Ἡγγέλην may have been formed under influence of the stem in -ολ- such as στέλλω : ἔστάλην.

- ἡλίφην vs. ἡλείφθην (ἀλέϊφω), see ἐτρίφην above.

- συνελέγην vs. συνελέχθην (συλλέγω). In Attic, συνελέγην is more frequent than συνελέχθην. This form, in turn, is preferred by Herodotus. The occurrence of the suffix -η- with this verb could be the result of one of several factors: (a) the need to bring about a contrast with ἔλέχθην, passive of λέγω 'say'; (b) the influence of synonymous (συν)εμίγην; or conversely, (c) there might have been some influence of the stems in -αγ- that have -η-, e.g. ἀπηλλάγην, ἐκάγην.

- ἐψύχθην vs. ἐψύχην (ψύχω). The former is the oldest (e.g. K 575), and it is also the expected form since the verb stem is long (cf. ψῦχω). In the creation of ἐψύχην, its meaning 'grow cold' (a spontaneous process, e.g. Ar. Nu. 151, Pl. Phdr. 242a) may have played a role.267

To conclude, in sections 3.1.1 and 3.1.2 I argued that the distribution of the aorists in -η- and -θη- can be explained primarily by means of a number of morphological rules. With a number of stems, however, a semantic tendency appeared to be relevant to the distribution of the two variant suffixes. In section 3.1.3, verbs were discussed that possess both variant aorist forms. For each individual verb, the specific morphological and semantic factors were analyzed that may have motivated the emergence of the variant forms.

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267 Ἐψύχην is post-Classical.
Fig. 1: The Distribution of the Sigmatic Middle Aorist and the Aorist in –Θη- in Homer

- Distribution of the sigmatic middle aorist
- Intersection of the distributions of the sigmatic middle aorist and the aorist in –Θη-
- Distribution of the aorist in –Θη-
- Extension of the aorist in –Θη-

Indirect Reflexive
έλύσατο

Perception
γεύσασθαι

Mental Activity
βουλεύσατο

Speech Act
μυθήσατο

Direct Reflexive
κείρασθαι

Mental Process
χολώσατο
χολώθη

Body Motion
όρμησατο
ώρμήθη

Spontaneous Process
ιάνθη

Collective Motion
λέξασθαι
ἡγήσθην

Recipient
μαχήσατο

Passive
δεβλάφθην
3.2 The Distribution of the Sigmatic Middle vs. the Passive Aorist Form

In the course of the history of the Greek language, a gradual expansion of the passive aorist form can be observed. This expansion take place mainly at the cost of the sigmatic middle aorist. As a result, in the modern Greek language the sigmatic middle aorist form has disappeared completely. In section (3.0), this expansion of the passive aorist form was presented as a test-case of our semantic network. This was built on the assumption that the extension of the aorist form follows the connected paths through the semantic network. In the following sections, this assumption will be tested through analysis of Homeric and of Classical Greek.

3.2.1 Sigmatic Middle vs. Passive Aorist Form in Homer

In the previous section, the distribution of the passives in -\( \theta \eta \) was contrasted with that of passives in -\( \eta \). The focus of this section concerns the distribution of the passive in -\( (\theta)\eta \) as compared to that of the sigmatic middle aorist. The uses of the aorist in -\( (\theta)\eta \) have already been discussed above. The Homeric uses of the sigmatic middle aorist are the following:

<table>
<thead>
<tr>
<th>Indirect Reflexive</th>
<th>E.g. ἐλύσαο, ἔτιμήσασθε; media tantum: ἐδέξατο, ἐκτήσατο;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Activity</td>
<td>βουλεύσατο, μήσατο, μητίσατο;</td>
</tr>
<tr>
<td>Speech Act</td>
<td>μαντεύσατο, μυθήσατο, φθέγξατο;</td>
</tr>
<tr>
<td>Perception</td>
<td>γεύσασθαι, θηήσατο;</td>
</tr>
<tr>
<td>Direct Reflexive</td>
<td>κείρασθαι, ἀλείψατο;</td>
</tr>
<tr>
<td>Reciprocal</td>
<td>δηρίσαντο, μαχήσατο;</td>
</tr>
<tr>
<td>Body Motion</td>
<td>ὥμησατο, κλινάμενος;</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>λέξασθαι(^{268});</td>
</tr>
<tr>
<td>Mental Process</td>
<td>ἀσάμην, ἱρασάμην, ἱδέασατο, ἔχολόσατο.</td>
</tr>
</tbody>
</table>

The sigmatic middle never occurs with the spontaneous middle nor with the passive meaning.\(^{269}\) Notice, further, that all sigmatic middle aorists have an *animate subject*, and that most of them are *volitional* (with the exception of the mental processes, e.g.

\(^{268}\) I know of only one example: Τρώας μὲν λέξασθαι ἐφέστοι ὃσοι ἔστιν (B 125) ("and the Trojans should gather, all those who dwell in the city").

\(^{269}\) Sigmatic middle aorists with passive meaning do not exist in historical Greek. The places that are often mentioned as examples of a passive meaning such as κρινάσθων (\( \Theta \ 35 \)), ἐπέζησατ’ ὁ Κριός (Simon. Fr. 22D) and στεφανοσάμενον (Pi. O. 7.15) are at least open to considerable doubt. K-G (I: 118-9) rightly explains the former as an indirect reflexive 'soll man sich (sibi) auswählen', and the latter two as direct reflexives. Thus, στεφανοσάμενον is paraphrased by K-G as 'der sich den Kranz auf’s Haupt gesetzt hat'. As to the Simonides line, Koniaris (1986: 347) convincingly argues that Simonides plays with the athlete's name, using the verb πέκουμαι. When referring to people the verb means 'to comb'; in reference to animals, the verb means 'to shear'. Using πέκουμαι instead of κείρομαι, the athlete is presented as a semi-human, in accordance with his name Κριός ('Ram'). Thus we can render the verse as 'Ram had himself sheared'. By switching to a passive τὸν Κρίον ὧς ἐπέζηθη (Ar. Nu. 1356), Aristophanes goes even further, according to Koniaris. By saying that Κρίος "is shorn", he is presented as a "ram" tout court. For a discussion of the problem, I refer to Bers (1984: 103) and Molyneux (1992).
Recall that, in Homer, the passive aorist form has a passive use, a spontaneous process use, a mental process use, a collective motion use, and a body motion use (see 3.1.1). The mapping of the sigmatic middle and the passive aorists in -η- and -θη-onto the usage types is shown in Fig. 1 (p. 110). Again, we can observe that the validity of the first principle of section (3.0) is confirmed. Both the aorist in -(θ)η- and the sigmatic middle aorist cover a connected region of middle meanings in the semantic network. In the mental process use, the body motion use, and the collective motion use, an overlap can be observed between the distribution of the sigmatic middle and that of the aorist in -(θ)η-. From here on, this overlap will be the focus of our interest.

One of the remarkable features of Homeric verbal morphology is the alternation of passive aorist form and middle sigmatic aorist with verbs of motion and mental process verbs (generalizing, in the intransitive middles with animate subjects). Consider the following examples:

(2)  

a. τοῦ δ’ Ὀδυσσεύς μάλα θυμῶν ἀποκταμένοιο χολάθη (Δ 494)  
For his slaying was Odysseus mightily angered at heart.

b. τὸν δ’ Ὀδυσσεύς ἐτάραυνοι χολωσάμενος βάλε δουρὶ (Δ 501)  
Him Odysseus, angered for his comrade’s sake, struck with his spear (...).

In both lines, Odysseus is furious about the killing of his comrade Leucus, and both verbs refer to the same event. Quite a number of verbs have this formal contrast, as it appears, without showing a difference in meaning. Inventories of alternating aorist forms are given by K-G (I: 118), Schwyzer (I: 760-1), and Chantraine (1958: 405-7). The semantic classification is mine.

**Mental processes**

άσοφαίην - αὔαθην 'was mistaken' (άώω)  
ηδέοστο - οίδεοθεν 'respected' (αίδεοθεν)  
κοιμήστο - κοιμήθηκεν 'fell asleep, went to bed' ²⁷⁰ (κοιμίω)  
ἐκορέστο - κορέσθηκεν 'was satisfied' (no present in Homer)  
ἐμνήστο - μνησθήκα 'remembered' (μνησθήκα)  
νεμεσόστα - νεμεσθήθη 'became angry' (νεμεσθήθη)  
τερμάγενος - τερμάθηκε, τέρτιον, τάρτιον, τραπείον 'enjoy' (τέρπω)  
ἐχολόστο - χολόθη 'became angry' (χολόθη)  
ὁίστο - ὀίθηθη 'thought, suspected' (ὀίθηθη)  
πειρήματο - πειρήθη 'tested, tried, experienced' (πειράματο) ²⁷¹  
φράστο - ἐφράσθη 'notice, understand' (ἐφράζω)

**Body motion**

ἀἰξάσθαι - ἡγήθη 'darted' (ἀίξω)  
ἡρέστο - ἡρεσθῆ 'leaned on' (ἐρέθω)  
κλινάμενος - ἐκλίν(γ)θη 'lay down' (κλίνω)  
νοσφιάζω - νοσφιάζει 'retired, left' (νοσφιάζει)  
ἄρμηστο - ἀρμήθη 'set off' (ἀρμήθη)  
τανυσσάμενος - τανυσθείς 'stretched out' (τανύω)

²⁷⁰ The verb involves physical motion 'lying down', cf. κλίνομαι.

²⁷¹ Admittedly, πειράματο 'test, try, experience' is not a true mental process. Yet, in ch. 5 it will be argued that the middle inflection expresses an element of cognitive involvement of the subject (which is absent in semantics of the active πειράματο): the subject acquires information as a result of the event.

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This list can be extended with the following verbs. Again, the variant formations are used with apparently identical meanings. Both the sigmatic middle and the passive aorist forms designate volitional actions.

ελιξάμενος - ελιξθέντων 'went to and fro, turned around quickly' (ἐλίσσω)

(3)  
   a. κέκλετο δὲ Τρόώεσσιν ἐλιξάμενος καθ’ ὀμιλον (M 467)  
       And he went about in the throng, and called to the Trojans (...).
   b. σύκέτ’ (...) οἶω οὐδ’ ἀγγελον ἀπονέεσθαι  
       (...) ἐλιξθέντων ὑπ’ Ἀχαιῶν (M 74)  
       (...) I think that not one man will return back as a messenger (...), before the Achaeans when they turn around.

ἐλελιξάμενος - ἐλελίθη 'id.' (ἐλελίζω)

(4)  
   a. [snake] τὴν δ’ ἐλελιξάμενος πτέρνυος λάβεν ἀμφιαρχίαν (B 316)  
       But he coiled himself and caught her by the wing as she screamed at him.
   b. στήτ’ ἐλελιξθέντες καὶ ἀμύνετε νηλεές ἣμαρ (A 588)  
       Turn around and stand, and ward off the pitiless day (...).

τρεψάμενοι - τραφθήναι 'turned' (τρέπω)

(5)  
   a. οἱ δ’ εἰς ὄρχηστόν τε καὶ ἵμερόεσαν ἀοιδήν  
       τρεψάμενοι τέρποντο (α 422 = σ 305)  
       But they turned to dance and heart-stirring song, and made merry.
   b. εἰ δ’ ἐθέλεις τραφθήναι ἄν’ Ἀλλάδα (ο 80)  
       And if you wish to make a tour through Hellas, (...).

The question remains as to how we can account for this remarkable alternation. To what extent can the demands of the hexameter be held responsible for this variation? In order to provide an answer to these questions, it is insightful to examine the sigmatic middle and passive aorist forms that are metrically equivalent. In the following, I will argue that, on the basis of these metrically equivalent forms, one can conclude that the sigmatic middle variants belong to an older stage of the epic tradition.

Forms that are metrically equivalent are

- 2nd pl. indicative, imperative: -σασθε/-θητε;
- 3rd sg. and pl. imperative: -σασθω(ν)/-θητω(ν);
- 2nd/3rd dual primary and secondary: -σασθον, -σάσθην/-θητον, -θητην;
- infinitive: -σασθαυ/-θηναι.

272 See section 2.3.2, note 216.
273 Ἑλελίζω is used as an equivalent to ἐλίσσω.
The occurrences of the sigmatic middle and passive aorist forms of those verbs that have both forms are shown in the following table:

Table 7: Occurrences of sigmatic middle and passive aorist forms

<table>
<thead>
<tr>
<th></th>
<th>-άμην</th>
<th>-θήν</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>111</td>
<td>88</td>
</tr>
<tr>
<td>Of which metrically equivalent</td>
<td>18</td>
<td>33</td>
</tr>
<tr>
<td>Excluding</td>
<td>3 (=11.1%)</td>
<td>24 (=88.9%)</td>
</tr>
<tr>
<td>ἐμνησάμην/ἐμνήσθην, ἐπειρησάμην/ἐπειρήθην</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The overall occurrence of sigmatic middles of the verbs that have the alternation is higher (111 : 88). However, if we exclude the forms that are not metrically equivalent we get another picture. From the metrical equivalents, Homer uses the sigmatic middle aorist 18 times, and the passive aorist form (η and θη) 33 times.274 Of these 18 instances of sigmatic middle forms, 15 are forms of the aorists ἐμνησάμην (13x) and ἐπειρησάμην (2x). These two forms may belong to Homer’s Ionic dialect since these verbs also exhibit an alternation in Classical Ionic.275 This leaves us with only three cases in which the poet used the sigmatic aorist (ἀἵξασθαι X 195, Ψ 773, κομῆσασθε I 705) instead of the possible passive aorist form. Conversely, in contexts where he was free to choose, he used the passive aorist form 24 times. This is best illustrated by the forms ὀρμήθητιν and ὀρμηθήν. Although Homer could have employed the metrically equivalent forms ὀρμήσασθε and ὀρμήσασθαι, he only used the passive aorist forms (two and six times, respectively). On the other hand, sigmatic middle forms such as ὀρμήσατο, which is metrically different from ὀρμήθην, were preserved for reasons of metrical conveniency.

We may conclude that the sigmatic middle forms designating mental processes and body motions (apart from ἐμνησάμην and ἐπειρησάμην) can be considered a relic of an earlier language stage, preserved by Homer as metrical alternatives to the passive forms. This would mean that, in this respect, the poet’s own language was not very different from Classical Greek.

In the earlier stage of the language, in which the passive form was restricted to the passive and spontaneous meaning, the morphological opposition between sigmatic middle and passive form probably implied a semantic distinction. For instance, ἐτρέψαμην (τρέπω) may have had the volitional, reflexive-like meaning ‘I turned myself”, whereas

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274 The forms found were: (sigmatic middle [18x]) ἀἵξασθαί X 195, Ψ 773, κομῆσασθε I 705, μνῆσασθε Z 112, Η 371, Θ 174, Λ 287, Ω 487, 662, 734, Π 270, Π 185, Σ 299, μνήσασθε Π 671, μνήσασθα η 217, η 71, πειρήσασθε Θ 18, ψ 135; (passive form [33x]) αἰδέσαθε β 65, αἰξήθην Ω 97, αἰξήθην ε 854, κλινθῆτε Κ 350, κλινθῆτε ψ 335, κομῆσασθε Β 427, κομῆσασθαι Η 355, κομῆσασθαι Θ 295, Ε 411, 525, κομήθησα δ 118, νεεσάθηκε Β 544, ζ 64, 98, ὀρμήθητεν Ε 12, Π 530, ὀρμηθήναι Ν 559, Σ 313, Σ 282, μ 126, πειρήθησαν Κ 444, πειρηθῆτο Ψ 553, πειρηθήναι Ε 220, Υ 349, Φ 225, Ψ 804, ω 240, ἑτέρθητε ρ 174, ταρπῆται ψ 212, ἑταρπείτε ψ 300, τραφήτε ο 80.

275 Cf. Herodotus: ἐμνησθην (e.g. 2.20.1), ἐμνησάμην (e.g. 7.39.1); ἐπειρήθην (1.206.2), ἐπειρησάμην (e.g. 1.84.2).
étpòφην must have been strictly passive 'I was turned'. Likewise, éterψάμην (tέρκω) might have had a reflexive-like meaning 'I amused myself', whereas étápφην was passive 'I was amused'. It is quite conceivable that the form in -η- designated a spontaneous event 'I became amused'. These fine semantic distinctions disappeared by the expansion of the passive form in -η- and -θη- to the body motion and mental process middle.

In Fig. 1 (on p. 110), the extensions of the aorist in -(θ)η- to the body motion use, the mental process use, and the collective motion use that took place in the course of the epic tradition are indicated by the thick arrows. It can be observed that the form in --(θ)η— spreads to uses that have a direct semantic relation within the network.

3.2.2 Sigmatic Middle vs. Passive Aorist Form in Classical Greek

In this section, I will treat the two passive aorist forms (in -η- and -θη-) as one formation, since, in Classical Greek, they are essentially equivalent with respect to their semantics. For Classical Greek, we can discern - roughly - the following distributional pattern. The sigmatic middle is used in the meanings:

<table>
<thead>
<tr>
<th>Indirect Reflexive</th>
<th>Speech Act</th>
<th>Perception</th>
<th>Mental Activity</th>
<th>Reciprocal</th>
<th>Direct Reflexive</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.g. ἐκποιησάμην; (media tanton) ἡργασάμην, ἐδεξάμην, ἐκπεποιήσαμην</td>
<td>(mostly media tanton) ἠταλλόσαμην, ἠλογοσάμην, παρεκλευσάμην</td>
<td>(mostly media tanton) ἠτενυσάμην, ἠθεσάμην, ἠσκεψάμην</td>
<td>(mostly media tanton) ἠβουλευσάμην, ἠλογοσάμην, ἠτενυσάμην</td>
<td>(mostly media tanton) ἠμαχεσάμην, ἠγανοσάμην</td>
<td>ἐκειράμην, ἠλονοσάμην, παρεσκευασάμην</td>
</tr>
</tbody>
</table>

There is also a thematic middle form ἔτραφετο, which is probably older than ἐτερψάμην and ἐτράφην. The thematic aorist can be used both in a volitional meaning (body motion) (e.g. τ 389), and in non-volitional meaning, e.g. ἔτραφετο 'αἰχῇ (L 237); πάσι δ' ἄρα χρών ἔτραφετο (φ 413).

There is also a reduplicated middle aorist τετάρφετο. This middle form is probably based on a causative reduplicated form *τέταρφον 'I amused'. This causative was replaced by the sigmatic form ἔτερψα. As a decausative, τετάρφετο denotes a change of state of the subject 'became amused'.

The verb πειράσαι has a complex semantics and is therefore hard to classify. In ch. 5, I will argue that, at least in Homer, its middle voice expresses an element of cognition. Furthermore, also the fact that the verb has two aorist forms, ἐπειρασάμην and ἐπειράθην, constitutes a problem. In Herodotus, as in Homer, the two forms seem to be used indiscriminately (e.g., in 3.152 and in 7.135.3). In Thucydides, however, it appears that the sigmatic middle occurs with the meaning 'experience, get acquainted with', construed with a genitive complement (2.44.2, 2.85.2, 4.114.4) or absolutely (5.69.1, 4.117.1), whereas the passive aorist has the meaning 'try', and is construed with an infinitive (2.5.5, 6.92.4) or absolutely (2.33.2). Once it is the passive of the verb πειράω 'seduce' (6.54.4). There is one single exception to this pattern in 4.60.2. Here, πειράσασθαι [v.l. -σεβαί] occurs in the meaning 'try', construed with an infinitive.

The verb ἡμικλάσαι 'compete, strive for, race, hurry' deviates from the typical reciprocal since it does not necessarily involve a sense of rivalry. It may indeed only imply that the subject makes great physical effort - typically in order to move forward, e.g., καὶ μὴν γέροντι δεῦρ' ἡμικλάσαι θοῖοι (Ε. Ορ. 456) ('Lo, hither straineth on with aged feet'). The verb has thus become similar to a body motion verb. This semantic shift may explain why the verb usually has a passive aorist form ἡμικλάθην. The sigmatic middle ἡμικλασάμην occurs twice only in Euripides (Hel. 1471 ἐξ-, Fr. 764), and late.
The passive aorist form is used in the following meanings:

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Motion</td>
<td>ἀπηλλάγην, ὠρμήθην, ἐκλίνθην</td>
</tr>
<tr>
<td>Mental Process</td>
<td>ἐμνήθην, ἔφοβήθην, ἰσθην, ἔχάρην</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>ἡγέρθην, ἐμ(ε)ίχθην/ἐμίγην, συνελέξθην/συνελέγην</td>
</tr>
<tr>
<td>Spontaneous Process</td>
<td>ἐκατόθην, ἠχεζήθην, ἐκάγην; (media tantum) ἐγενήθην²⁸⁰</td>
</tr>
<tr>
<td>Passive</td>
<td>ἐκωνήθην, ἐτύχην</td>
</tr>
</tbody>
</table>

This distributional pattern is represented in Fig. 2 below. Once again, it can be observed that the two aorist formations cover connected regions on the semantic map (cf. principle (I) in section 3.0). The picture suggests that there is a sharp division between the two regions of distribution. In reality, however, the boundary is somewhat fuzzy; quite a number of verbs exhibit morphological variation. Another reason, as we have seen above, is that the passive aorist form shows a tendency to expand its territory. Notice, furthermore, that all sigmatic middle aorists have volitional subjects. This property is, however, not exclusive to the sigmatic middles since the body motion verbs, too, are volitional (e.g. ἀπηλλάγην, ὠρμήθην). The subjects of the passive aorist forms, on the other hand, are more patient-like. The abstract meanings of these two aorist formations will be discussed in more detail in section 3.3.

²⁸⁰ In the 4th C. BC., this form emerges; the older form ἐγενόμην, however, does not disappear.
Fig. 2: The Distribution of the Sigmatic Middle Aorist and the Aorist in –θ(η)– in Classical Greek
3.2.3 Morphological Variation

3.2.3.1 Between Body Motion and Direct Reflexive

The verb αὐλίζομαι has both the sigmatic middle form ηὐλισάμην and the passive form ηὐλίσθην. Both designate the volitional intransitive event ‘to camp, bivouac’. The passive form occurs in Hipponax, Sophocles, Euripides, Herodotus and Xenophon; the middle form in Thucydides and in Herodotus. No transitive active forms are attested. The actives in S. Ph. 33 and E. Ion 493 are intransitive (i.e. synonymous with the middles). Consider the following examples:

(6) a. ἐν Τανάγρῃ δὲ νύκτα ἑναυλισάμενος (Hdt. 9.15.1)
Having camped in Tanagra for the night, (...).

b. (...) ἐνίκα τὴν ἡμέραν ἐκέινην αὐτοῦ μείναντας τε καὶ αὐλισθέντας, 
metέπετα (...), πορεύεσθαι (...). (Hdt. 8.9)
(...) the opinion prevailed that they should abide and encamp where they were for that day, and thereafter (...), put to sea (...).

In both instances the clausal subject appears to be an agent, no external agent is implied. That the passive form does not necessarily express passive meaning is proven by the existence of the passive imperative νόν μὲν καταυλισθῆτε, (E. Rh. 518).281

The explanation of this morphological variation is that the verb possesses semantic features of both the direct reflexive use and the body motion use. On the one hand, the verb implies that the subject ceases to travel, and settles down for the night. As such it resembles middles of motion such as ίστομαι, κλίνομαι. On the other hand however, the verb is similar to the direct reflexives in that it implies that the subject-referent prepares

281 Schwyzer’s assertion that the passive imperative in -θητι is ‘kaum je rein passiv’ is correct (Schwyzer-Debrunner, I: 760n6). Possible passive cases are E. Ba. 914, Pl. Phdr. 236b, and Ar. Ach. 408. The Euripidean line runs as follows: ξειθεῖ πάροιθε δωμάτων, ἄθηται μοι (‘Come before the palace, show yourself to me’; lit.: ‘be seen by me’). The presence of a dative complement suggests that the expression is influenced by the comparable expression φάνηθαι μοι (which at 914 was metrically possible as well). In later Greek, the passive imperative ἄθηται is used in the Septuagint, and elsewhere (for papyri, see Mays 1926-34, II: 122). This intransitive use of ἄθηται + dat. is comparable to the use of γνωσθήναι with dative ‘become known’ (e.g. E. Cyc. 567 and Xen. Cyr. 7.1.44). In the Septuagint the influence of the Hebrew source is probably relevant, too. For instance, in ἄθηται τῷ Ἀχαβ (Reg. III 18.1), the Hebrew text has the nif'al-form of ra'a, which has a passive use ‘to be seen’, as well as a middle intransitive one ‘to appear’. As for the case found in Plato, Phaedrus tells Socrates that, if he can make a speech more valuable and convincing than that of Lysias, he deserves a statue in Olympia: παρὰ τὸ Κυψελίδων σφυρηλάτωσ' ὑπὲρ Ὀλυμπίας σταθήτι (‘have yourself set up in hammered gold beside the offering of the Cypselids in Olympia’). In prose, the aorist ἐστάθης is used only with passive meaning with subjects like statues and steles. However, it is possible that Plato also hints at the agentic use of ἐστάθης (equivalent to ἔστην) as it is found in poetry (e.g. A. Th. 33). The place may, therefore, also be interpreted as ‘(go and) stand in wrought gold’. Finally, sometimes ἐκκυκλίθης ι(τι) at Ar. Ach. 408 is also taken as a passive (cf. translation by Sommerstein ‘have yourself wheeled out’). Alternatively, the form might be interpreted as an agentic body motion verb, i.e. ‘wheel yourself out’.

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him/herself (for the night), i.e. performing an action external to the body. As such αὐλίζομαι is comparable to verbs like παρασκευάζομαι.

3.2.3.2 Between Perception and Mental Process

In chapter 2, I have argued that the mental process middle and the perception middle are semantically adjacent. Formally, the two types are clearly distinguishable. The middles of perception have a sigmatic middle aorist, whereas the mental process middles have a passive aorist form. Thematic middles occur in both meanings.

_Perception_ (volitional)

ωφρύμην 'I smelled'
ἐγενάμην 'I tasted'
ἐθεασάμην 'I gazed at'
ηκοροσάμην 'I listened'
ἐσκεφάλη 'I looked at'

_Mental_ (cognitive) process (non-volitional):

ἐπιθύμημ 'I learned/heard that'
(ἐπ)ελευθύμην 'I forgot'
διευθύνη 'I thought, intended'
ἐμνήθην 'I remembered'
ἐφαράθην 'I observed, thought, understood'
ἐνευάθην 'I erred, was mistaken'

There are, however, a number of isolated passive forms that denote perception. Besides the usual forms ωφρύμη and ἐθραυσον, we also find the variant forms ἔδρακην, ἔδειρχθην, and ωφράνθην, be it sporadically. The passive forms ἔδρακην and ἔδειρχθην are found in Pindar (P. 2.20, N. 7.3), and in tragedy, respectively (A. Pr. 93 (lyr.), 547 (lyr.), S. Aj. 425 (lyr.), Fr. 837). The verb δερχομαι had probably disappeared from the spoken language, since it does not occur in Classical prose until its reappearance in Aristotle. The verb is used as a poetic alternative to ὦρων. Formally, ἔδρακην could have been formed by analogy with the pair ἔφρατον = ἔτραψον. However, this does not explain the appearance of the passive aorist from a _semantic_ point of view. The semantic motivation might be that the verb in Classical Greek, contrary to the other middles of perception, is typically non-volitional (see 2.1.8), i.e. it means 'see', and not the volitional 'fix one's eyes on, look at' (as in Homer). For example,

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282 In Theocr. 2.46, we also find an isolated novel passive aorist λασθῆμεν 'to have forgotten'.

283 It is not surprising that the anomalous active aorist ἐθραυσον was replaced, yet one would perhaps expect a sigmatic middle ἔθραφη. This form, indeed, appears once, in the AP (16.166 [Euenus]), and is probably an artificial formation. An alternative form that eliminates the irregularity is middle ἔθρακομαι, which is also found only once; again in the AP (7.224 [Anon.]). The form ωφρησσομαι is found in Aratus (an artificial creation?), and in late Greek.
(7) [No longer shall you look upon a man]
οἶνον οὖτινα
Τρώα τραταῖοι
dέρχθη χθονὸς μολόντ’ ἀπό
'Ελλανίδος (S. Aj. 425)
(...) such as no other of the army that Troy has seen come from the land of Hellas!

With regard to non-volitionality, ἐδράκην and ἐδέρχθην ('I saw') resemble the verbs of cognitive mental processes more closely than other middle verbs of perception (e.g. σκέπτομαι). It is therefore more likely that δέρκομαι adopted the passive aorist form from the verbs of cognitive processes (e.g. ἔφασσαν 'I perceived, noticed, understood'). The sigmatic middle aorist is a less likely candidate because the sigmatic middle in Classical Greek always denotes volitional events (see also 3.3).

The form ὀφθαλμάθην appears relatively late in Classical Greek, namely in Aristotle (de An. 424a4,7; Pr. 887a10). For instance,

(8) ἀπορήσεις δ’ ἂν τις εἰ πάθοι ἄν τι ὑπ’ ὀσμῆς τὸ ἀδύνατον ὀφθαλμάθηναι, ἡ ὑπ’ χρώματος τὸ μὴ δυνάμενον ἰδεῖν (Arist. de An. 424a4)
The problem might be raised: Can what cannot smell be said to be affected by smell or what cannot see by colours (...) [transl. Barnes 1995].

As in the case of ἐδράκην/ἐδέρχθην, ὀφθαλμάθην probably adopted the passive aorist form rather than the sigmatic middle aorist because it typically has a non-volitional meaning, in which respect the verb resembles the mental process verbs.

Concluding, the cases of ἐδράκην/ἐδέρχθην and ὀφθαλμάθην demonstrate that the passive aorist form only extends gradually through the network, moving from one meaning to an adjacent one.

3.2.3.3 Between Speech Act and Mental Process

As I have argued in chapter 2, there is a semantic relation between the middle of mental processes and the speech act middle. As a rule, speech act middles have a sigmatic middle aorist, whereas mental process middles have passive aorist forms. A good example of this contrast is the pair ἐψυχόσῳμην 'I lied' (speech act) vs. ἐψυχόσῃθην 'I erred'. Consider also the following verbs:

Speech acts (volitional):
ἔλοιπον, ἐπάθημα 'I reproached'
ἡπνόομην 'I denied, refused'
ἡτοιμαζόμην 'I accused'
ἡδομήμην 'I prayed, vowed'
ὠθυτόμην 'I lamented'

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Mental processes (non-volitional):
εἰλοκίθην 'I got angry'
ἐπείδιθην 'I believed, obeyed'
ηδόθην 'I enjoyed'
ἄργιθθην 'I became angry'\(^{284}\)

The formal distinction between speech act and mental process middles can also be discerned within the verbal paradigm of μέμφομαι. The verb has both a sigmatic middle aorist ἐμέμψαμην and a passive aorist ἐμέμψηθην. The opposition between the two aorists of μέμφομαι is found in Pindar, Euripides, Herodotus and Thucydides. Elsewhere only the sigmatic middle form appears. There appears to be a semantic distinction. Compare the following examples:

(9) δέσποιν', ἔχεις μὲν τὰμῷ μέμψασθαι κακά (E. Hipp. 695)
Mistress, you can, to be sure, censure the troubles I have caused you, (...).

(10) Τιμήθη ἐμέμψηθη, σωφρονοῦντι δ' ἤχθετο (E. Hipp. 1402)
She was wroth about (the slight to) her honour, and she hated your chastity.

In (9), the construction with ἔχω 'be able' indicates that the action is controllable. In lines 682-94, Phaedra rebukes the nurse because she had been indiscreet to Hippolytus. The nurse admits that there is reason enough to do so (695), but adds that she can answer back: ἔχω δὲ κάγῳ πρὸς τάδ', εἰ δέξῃ, λέγειν (697) ('But if you will listen, I too have something to say in reply'). It is clear that μέμψασθαι at 695 denotes an (agentive) speech action 'censure, reproach'. The accusative object expresses the thing that is censured. In this manner, the verb can be compared to (near-)synonymous verbs (with sigmatic middle aorists) such as μοιέμομαι, λοιδορέμομαι. In example (10) however, the verb does not express a speech act. Rather, Artemis reveals to Hippolytus Aphrodite's motive for ruining him: she had been dissatisfied with the (lack of) honour bestowed on her (see also Barrett 1964, ad loc.). Here, passive ἐμέμψηθη expresses an emotion (cf. also ἤχθετο) and the genitive-complement expresses the source of her anger. The passive ἐμέμψηθη can thus be compared to emotional verbs with passive aorist forms such as ὄργιζομαι.

Further examples illustrating the semantic distinction are:\(^{285}\)

\(^{284}\) In Classical Greek, σίδερομαι has both ἡδεσάμην and ἡδεσθην - as in Homer. However, the sigmatic middle only occurs in tragedy, and in Demosthenes (23.72 [corrupt], 37.59, 38.22, 43.57). Here, it has the special meaning 'pardon an unintentional homicide'. The occurrences in tragedy (A. Ch. 108, S. Ai. 506, E. Fr. 109) are best explained as archaisms, preserved in poetry as an alternative to ἡδεσθην. Likewise, μυνήσκομαι has ἐμνησάμην and ἐμνησθην (as in Homer). The sigmatic middle aorist, however, only occurs sporadically in tragedy, once in comedy (Eupolis, Fr. 413.1), and once in Herodotus (at 7.39.1, against 21x ἐμνήσθην). The instances in Thucydides (3.104.4, 3.104.5) and Plato (Lg. 629a, 660e) are quotations from Homer and Tyrtaeus, respectively. Again, it appears that the sigmatic middle is a poetic alternative to ἐμνήσθην.

\(^{285}\) I have examined the occurrences of the aorist of μέμφομαι only in those three authors in which both forms are found. The instances are: Euripides: (middle) Hec. 1184, El. 903, IA. 1020, Hipp. 695, Fr. 282.13; (passive) Hel. 463, 637, Hipp. 1402, Hel. 31, Fr. 18.2 (Antip.), Fr. 199.2; Herodotus: (middle) 2.24.1; (passive) 1.77.1bis, 3.13.4, 7.146.2, 4.180.5; Pindar: (passive) I. 2.20, N. 11.30; Thucydides: (middle) 1.143.3, 2.64.4, 3.37.4, 3.61.1, 8.109.1; (passive) 4.85.2.
Observe that the final ὅπως-clause in (11), and ἀδιήνατοτέρων in (12) indicate volition.

Hera acts out of resentment because she didn’t prevail in Paris’ judgement. There is no question of verbal castigation (an interpretation ‘after she had chided (…)’ is implausible).

Xerxes was displeased with the generals’ decision. As the generals are not present at that moment, the interpretation ‘verbally censure’ is rather unlikely. Instead, it is Xerxes’ emotional attitude that is important here. The contrast with the meaning of the sigmatic middle becomes apparent when we compare the following example, in which the object is also γνώμη:

After having verbally refuted the aforementioned ideas, Herodotus now intends to put forth his own opinion on the matter.

Here, too, an interpretation of verbal reproach is improbable, as the army itself is not to blame for being too small. Instead, the verb expresses Croesus motivation (his discontent with the size of his army) for returning to Sardis. Finally, consider
Because she was angry with her real father Poseidon, Athena gave herself to Zeus.

Summarily, the passive aorist ἐμέμψηθην can be considered an emotional (mental process) middle; the sigmatic middle ἐμεμψάμην, on the other hand, denotes an emotional speech act. The passive form denotes a mental change of state in the subject, and is non-volitional.

Hitherto, we have seen that speech act middles normally have a sigmatic middle aorist. However, there are also a number of passive aorist forms that designate speech acts:

ἀπεκρίθην 'I answered'
ἀπελογήθην 'I defended myself'
ἐβρυχηθην 'I roared'
ἐδήθην 'I asked, begged'
ἐλοιδορήθην 'I reproached'
ἐμνήσθην 'I mentioned'
ημείφθην 'I answered'

Also in authors that do not use ἐμέμψηθην, the form ἐμεμψάμην appears to designate a speech act, rather than a mental process, e.g., S. OT 337, Ant. 1157; Pl. R. 487a, Phdr. 234b; Isocr. 15.87, 16.19.

The passive form does not yet occur in Classical Attic, and is condemned by Phrynichus (78 [Fischer]). Its first appearance is in the comic Pherecrates, and in the Koine. In Xen. An. 2.1.22, there is a variant reading ἄπεκρίνοιτο.

The passive aorist form is only attested in those tetralogies of Antiphon (3.1.7, 3.1.9, 3.2.5, 4.3.2) that display many unattic features - the court-speeches always have ἀπελογήσαμην. There is controversy as to their authorship. Gagarin (1997: 32-3), however, seeks to explain this variation by assuming a difference in purpose and occasion of the speeches. Furthermore, a decade or two may separate the composition of the speeches. In Xen. Hell. 1.4.13, the passive ἀπελογήθη ὦς is probably a gloss.

The sole instance of this form is S. OT 1265: ὁ δ’ ώς ὁρᾷ νῦν, δεινὰ βρυχηθείς τάλας/ χαλαρωμασθήν ἄρτάνην ('And when he saw her, with a fearful roar, poor man, he untied the knot from which she hung'). It is hard to say whether the passive aorist was the regular form or not. The sigmatic middle, too, occurs only once in classical Greek: ἀναβρυχησάμενος in Plato (Phd. 117d). Later, we find it in Apollonius of Rhodes, Dio Cassius and Nonnus.

'Ελοιδορησάμην is by far the form that occurs more frequently. The passive aorist occurs in Plato and Aristotle with passive meaning. In Demosthenes, however, the passive form is used with an 'active' meaning, i.e. equivalently to the middle (cf. Dem. 9.3.5, 21.86, 132, 54.5).

The normal and oldest aorist of ἀμεθομαί is the sigmatic aorist (Hom., S., Hdt., Aristot.). The passive form is found three times: Pi. P. 4.102, Xen. An. 2.5.15 (ἄμη-), Theocr. 7.27.
Contrary to Homer, in Classical Greek there is also evidence for the following morphological rule: the form in -η- also occurs with

(vii) stems of the structure (C)Cακ-, (C)Cαπ-, (C)Cαφ-.

Examples are: (-ακ-) επλάκην (πλέκω), ἐτάκην (τήκω)252, (-απ-) κλάπην (κλέπτω), ἐλάκην (λέπω), ἐσάλην (σήμω), ἔτράπην (τρέπω); (-αφ-) ἐβάφην (βάπτω), ἐγράφην (γράφω), ἐράφην (ράπτω), ἐσκάφην (σκάπτω), ἐστράφην (στρέφω), ἔτάφην (θάπτω), ἔτραφην254 (τρέφω).255 As for stems of the structure (C)Cάκ- and (C)Cάφ- for lack of evidence we cannot be certain whether this morphological rule already applied for Homeric Greek. In the case of stems of the structure (C)Cαπ-, however, it can be seen that the rule probably did not exist in the Homeric language. In Homer, we find the form τραφήναι (τρέπω), whereas in Classical Greek the normal form is ἔτραφην.

Above, it was stated that stems of the structure (C)Cάκ-, (C)Cάπ-, (C)Cάφ-, (C)Cάξ-, (C)Cάπ-, (C)Cάφ- receive the suffix -η-. This implies that this rule only applies to stems that begin with a consonant. In other words, the passive in -θη- occurs with

(viii) stems of the structure #VĆ-.

Examples are: ἀρ-θη- (ἀφαρίσκω), ἀφ-θη- (ἀπτω), ἀχ-θη- (ἄγω), ὄρ-θη- (ὄρνυμι; Corinna 1.21), ὄφ-θη- (ὄρω). There are no counter-examples to this rule. Especially ὄρ-θη- (from ἀφαρίσκω) and ὀφ-θη- are significant, as you would normally expect forms in -η- with stems in -αρ- and -αφ- (e.g. ἐδόρην, ἐγράφην).256

So far, the distribution of the two aorist forms has been explained by means of a number of morphological rules. However, there is a group of forms, that is not covered by these morphological rules. These remaining forms possess a stem with the structures (C)CάC-, (C)CίC-, or (C)CόC-. With these stems, the following semantic tendency can be observed:

1. Forms that denote a spontaneous process or a mental process have -η-;
2. Forms that have a passive meaning, or denote body motion have -θη-.

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252 In Pindar, we find the novel form δρακείς, aorist of δέρκομαι.

253 Also ἐκλέφθην occurs (Eur., Hdt.), cf. rule (v). The e-vocalism is probably adopted from κλέπτω or ἔκλεψα.

254 There is also a variant form ἔτραψθην, an analogical (e-vocalism taken from present stem), and younger (no deaspiration) formation. The suffix -θη- is due to the e-vocalism (rule v). It occurs only marginally, and is especially used in poetry (for metrical reasons?).

255 Exceptions to the rule are ἐβάφθην, ἐγράφθην (once in a Milesian inscription, 5th c. BC, SIG 57.5, and post-Classical), and ἐθάφθην (see also section 3.1.3). These forms, however, occur only marginally. Many verbs have variants in -θη- with an e-vocalism in the stem (cf. rule v) which is probably introduced by analogy with the present stem (e.g. κλέπτω) or the active sigmatic aorist (e.g. ἔκλεψα): ἐκλέψθην, ἐπλέχθην, ἐστράφθην, ἐτῆθθην, ἐτέρφθην.

256 This rule might be explained by the intransparancy of forms as *ἡγη (ἀγω), *ἡψη (ἀπτω), *ὀψη (ὀράω).
As for collective motion verbs, both aorist forms occur. Take, for instance, ἐμίγην vs. -ἐμ(ε)ίχθην, and -ἐλέγην vs. -ἐλέξθην.

The best example of this semantic tendency is the pair ἐφάνην vs. ἐφάνθην; the former expressing a spontaneous process ‘appeared’, the latter a true passive ‘was shown, was discovered’ 257. Other examples of verbs with monosyllabic aorist stems in -av- are ἐμάνην (μαίνομαι), which is a mental process (rule (1)); passives are ἐκράνθην ‘was accomplished’ (κραίνω), ἐρράνθην ‘was sprinkled’ (ῥαινώ), ἐχράνθην ‘was defiled’ (χραινω) (rule (2)). The semantic tendency can also be discerned with the stems in -cy-.

The forms in -η- denote spontaneous processes: ἐρράγην, ἐπάγην, ἐάγην 258, whereas the forms in -θη- denote passives: ἐσφοράθην (σφόττω), ἐτάχθην 259 (τάττω), ἐφράχθην (φρόττω). 260 Compare, finally, the following stems in -ωφ-: ἐτύφην (τύφω) ‘smoked (intr.), smouldered’ (e.g Ar. Lys. 221) denotes a spontaneous process, while ἐκρύφηθην ‘was hidden’ is passive. 261

The following table sketches the distribution of the forms in -η- and -θη- in Classical Greek:

257 In tragedy, the form ἐφάνθη seems to be used sporadically as an intransitive ‘appear’ (cf. also the intransitive use of ἔστάθην in Homer and tragedy). The strongest case in point is S. Ant. 103 (lyr.): ὀκτίς ἀδέλου, τὸ καλ-λιστόν ἐπηκύλω φανέν/ θῆβας τῶν προτέρων φάος; ἔφανθης ποτ’ ὁ χρυσέας/ ἀμέρας βλέφαρον (‘Beam of the sun, fairer than all that have shone before for seven-gated Thebes, finally you shone forth, eye of golden day, (...)’). Note the correspondence with φανέν in vs. 101. However, even this case can be interpreted as passive: ‘you [the beam] have been shown forth [namely, by the sun]’. As to the other cases of ἐφάνθην, one can likewise hesitate between an intransitive interpretation ‘appear’, and a passive ‘be revealed’. I prefer to take them as passives where possible: S. OT 525, 1485, S. Tr. 743, E. HF 804 (lyr.); A. Pers. 264 (lyr.) may be intransitive.

258 In Attic, the compound κατάγηναι is the usual form: a contraction of *κατα-φοράθη. The long οι also spread to the augmented forms, e.g. κατάηθην.

259 Ἐτάχθην does not have an agentive use ‘to post oneself’, as this notion is expressed by the form ἐταξάμην.

260 Some of these verbs, however, have variant forms in -η-: ἐσφάγην (σφάζω), ἐμάγην (μαίνω), and ἐτάγην (τάττω). These variants occur less frequently than their counterparts in -θη-. The latter two are attested only once in Classical Greek. 'Εφράγην, furthermore, is post-Classical. I will return to this morphological variation below (3.3).

261 Also the form ἐνίγην (νίγω) can be explained by its meaning ‘choke, drown (intr.)’ (e.g. Ar. Nu. 1504, Dem. 32.6), which is a spontaneous process.
The forms ἐδείχθην, ἐμνήσθην, ἤρνηθην are quite frequent. The remaining forms occur highly marginally, and in some cases just once. Yet the occurrence of these passive forms is a clear indication that the speech act middle is adjacent to the domain of the passive aorist form. In chapter 2 it was argued that the speech act middle neighbours on the mental process middle. It is therefore likely that the passive aorist form extended from this latter use to the speech act use. In the cases of ἐδείχθην and ἐμνήσθην this extension is evident since their central use still involves a mental process (respectively ‘be in need of, want’ and ‘remember’), from which the speech act use is a secondary semantic extension. As for βρυχάομαι, λοιδορέομαι, ὀλοφύρομαι, an emotional involvement is prominently present in their lexical meaning. This salient feature brings about a link between these verbs and emotional mental process verbs - that have passive aorist forms - like ἔλυμηθην, ὀφρύσθην.

The remaining passive aorist forms mentioned above are somewhat harder to deal with. Conspicuously, four of them either have the meaning ‘to answer’ (ἀμείβομαι, ἀποκρίνομαι) or a related meaning ‘refuse, deny’ (ἀρνέομαι), ‘defend oneself’ (ἀπολογόγομαι). It is hard to assume that these verbs influenced one another as they each occur sporadically (with the exception of ἤρνηθην), at different times, and in different authors. It is unclear why precisely these verbs received a passive aorist form. Perhaps, ἤρνηθην was formed under the influence of the mental process verbs. Its meaning ‘refusing’ can be paraphrased by ‘do not want’ (thus comparable to οὐκ ἔβουλήθην) or ‘do not obey’ (compare οὐκ ἐπείσθην), and ‘deny’ with ‘do not think’ (compare οὐκ φήθην). Another possibility is that ἄπεκριθην, ἄπελογήθην, ἡμείσθην, ἤρνηθην were created after the example of ἐδείχθην ‘I asked for, begged’.

In conclusion, we have seen that a number of speech act verbs in Classical Greek adopted the passive aorist form. Some of these cases can be explained by their relation to the mental process verbs. Either their central use designates a mental process (ἐδείχθην, ἐμνήσθην), or they received the passive aorist form due to their subject’s strong emotional involvement (βρυχάομαι, λοιδορέομαι, ὀλοφύρομαι). Both processes attest to the semantic adjacency of the speech act middle and the mental process middle. As for the speech act middles ἀμείβομαι, ἀποκρίνομαι, ἀπολογόγομαι, ἀρνεύομαι, a tentative explanation was given for the occasional occurrence of the passive aorist form.

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292 The sigmatic middle occurs in epic, in Ionic and occasionally in Attic (Eur. 1x, Aeschin. 2x, Hyper. 1x, Aristot. 4x). The passive aorist is the most common form in Attic.

293 The passive ὀλοφυρθείς is found only once, in Thucydides (6.78.3): τοῖς αὐτῶι κακοῖς ὀλοφυρθείς (‘even when he laments his own ills (...’). Here, the verb seems to be used very much like a mental process verb, witness the unusual dative complement that could be taken as a dative of cause (cf. ἤδομαι τιν, μέμφομαι τινι etc.). Elsewhere (even in Thucydides four times), the sigmatic middle is found: Homer, Aeschylus, Lysias, Andocides, Plato, and Xenophon.
3.2.3.4 Between Mental Activity and Mental Process

In chapter 2 it was argued that the mental activity and mental process middle are closely related. The distinctive feature is volition. In principle, the former has the sigmatic middle aorist form, while the latter has a passive aorist form, that is, in Classical Greek. 294

Mental activity (volitional):
- ἐβολεύουσαμην 'I considered, resolved'
- ἐλογισάμην 'I reckoned, considered'
- ἐμηχανησάμην 'I contrived'.

Mental (cognitive) process (non-volitional):
- δεινόθην 'I thought, intended'
- ἐμνήθην 'I remembered'
- ἐφράσθην 'I observed, thought, understood'
- ἐφιεύσθην 'I erred, was mistaken'.

Nevertheless, two isolated cases of extension of the passive form to mental activity verbs show that the two meanings are related. The first case is the following:

294 How subtle the transition between mental process and mental activity is, can be illustrated by the pair ἰδέασομαι, with a sigmatic middle ἐπισημάτω, and οἶμαι, with a passive aorist ὁφθήν. To ἰδέασομαι ('believe, hold that') a certain degree of agency can be ascribed. The verb denotes that the subject conceives an opinion as a result of a process of reasoning, of an assessment of the facts. The subject is thus more actively involved. Conversely, οἶμαι designates that the subject conceives an opinion that has sprung from his/her internal (emotional) disposition, especially in Homer. Compare Schmidt (1967-9, I: 335): "Hier nach bedeuten die Verben (...) νομίζω and ἰδέασομαι einen objektiven, auf Erwägung und Vergleichung der Tatsachen beruhenden Glauben, der nicht aus einem inneren unbestimmten Gefühl erwächst. (...) Die Verben (...) σκέφτασθαι, δοκεῖν und δοξάζειν, bedeuten ein subjektives Urteil. (...) es erwächst aber aus der Tendenz des eignen Geistes, aus einer Stimmung und Neigung und aus einer Betrachtung der Gegenstände namentlich der Beziehung nach, die sie zu uns selbst haben". The more active involvement of the subject of ἰδέασομαι ('believe') is apparent when one considers that this meaning is a semantic extension of the meaning 'lead the way'. This extension may be compared to the one found in ἰδιον, e.g. τιμῶτερον τε ἱστοιν αὐτόν (Th. 8.81.2) ('(...) and that they should hold him in greater honour'). Cf. also Latin dăcō 'consider s.o. s.th'.

295 Φράσομαι occurs especially in epic and Ionic. In Herodotus, as in Homer, we occasionally find the sigmatic middle ἐφράσαμην besides the common ἐφησάθην. Once φράσασθαι occurs in an oracle (3.57.4): clearly an epic-poetic form (cf. -θα-). However, in the two other instances of the sigmatic middle (Hdt. 1.48.2, 5.9), there may be a semantic distinction. Cf. ὅκος δὲ οὖν Μῆδων ἀπόκειν γεγονότοι, ἔγνυ ἡν οὐκ ἐχον ἐπιφράσασθαι (Hdt. 5.9) ('How they have come to be colonists of the Medes I myself cannot account for'), and (...) Γοργός ύπεθετο ἐπιφράσαθαι σιατι, τὸ κηρὸν ἐκκόλιον κελέυσομαι (...) (Hdt. 7.239.5) ('(...) Gorgo noticed it herself, and suggested to scrape off the wax (...)'). In Hdt. 5.9, the verb seems to imply an active process of reasoning (i.e. a mental activity), while in 7.239.5, Gorgo discovers the trick only by accident (mental process).
(18) τὴν ἐπιλεξθείς 296
'Aγαμεμνονιάν εἶναι μ' ἡλιον (A. Ag. 1498 [anap.])
Having thus considered that I am the wife of Agamemnon.

'Επιλέγομαι normally has a volitional meaning ‘think about, consider, read’, and it has a sigmatic middle aorist ἐπιλεξάμην (e.g. Hdt. 3.65.3). Possibly, the passive aorist form expresses that the element of volition is irrelevant here. In this way the verb may be compared with ὑηθήν ‘I thought’.

The second case of an extension of the passive aorist form to the mental activity verbs is the following:

(19) ἀπαντα γὰρ προσκευάμενοι καὶ ἐπιλογισθέντες ὅτι οὔτε πλήθει ἔξουσι χρᾶσθαι
ioi βάρβαροι οὔτε ἵπποι (...) (Hdt. 7.177)
For they examined all in advance and came to the conclusion that the barbarians would not be able here to use their numbers or their cavalry (...).

The normal aorist of λογίζομαι is ἐλογισάμην (e.g. Hdt. 7.46). Again, we are dealing with an occasional spread of the passive form to a mental activity verb.297

3.2.3.5 Between Reciprocity and Collective Motion

We have seen above that reciprocal verbs have sigmatic middle aorists (ἐμαχεσάμην, ἡγονισάμην), whereas collective motion verbs have passive aorist forms (ἡγέρθην, ἐμ(ε)ἰκθεῖν/ἐμίγην, συνελέξθην/συνελέγην). The verb διαλέγομαι ‘converse with’, however, appears to violate this rule. Its aorist form in Classical Greek is διελέξθην. In Homer, the form διελέξατο is found in the formula ἄλλα τιμ μοι ταύτα φίλος διελέξατο τιμὸς (A 407 e.a.) (‘But why does my heart consider these things?’). This formula is always used after the speaker has been considering two possibilities. The meaning ‘consider’ may have developed from the original meaning ‘select for oneself’ or ‘enumerate for oneself’. Λέγω ‘speak’ does not yet occur in Homer. The contribution of the preposition δια- may be the idea that the objects under consideration are set apart from one another in order to be able to view them better. Since διελέξατο denotes a mental activity (‘consider’) the sigmatic middle is as one would expect. However, it is not certain whether this verb is the direct predecessor of the Classical διαλέγομαι ‘converse with’ since the latter is most commonly considered a reciprocal (K-G, I: 89; Gildersleeve 1900-11: 66; Schwyzser-Debrunner, II: 233; Martínez Vázquez e.a. 1999: 250). This would mean that we are dealing with a compound of the verb λέγω ‘speak’. The middle ending

296 This is the text from the OCT (Page). Groeneboom (1944), however, follows the codices and reads μὴ δ’ ἐπιλεξθείς (‘do not consider me the wife of Agamemnon’).

297 Another case of the passive -ἐλογισθηθα used as the middle might be present at Pl. R. 531d: Ὅμως δὲ γε, ἣ δ' ἐγώ, καὶ ἦ τούτον πάντον ὅν διελπόθθαμεν μέθοδος ἐάν μὲν ἐπὶ τὴν ἄλληλην κοινωνίαν ἀφίκηται καὶ συγκέιναι, καὶ συλλογισθῇ ταύτα ἢ ἐκ τῶν ἄλληλους οἰκεία (...) (‘Moreover, I take it that, if inquiry into all subjects we have mentioned brings out their association and relationship with one another and draws conclusions about their kinship (...’)).
expresses reciprocity (‘speak to one another’), and the preposition δια- possibly conveys the notion of disagreement and mutuality.298

The question remains why διαλέγομαι, contrary to other reciprocal verbs, has a passive aorist form. A tentative explanation may be that the verb διαλέγομαι became associated formally, and perhaps also semantically, with (συλ)λέγομαι ‘gather (intr.)’ (collective motion). Διαλέγομαι ‘converse’ implies, and συλλέγομαι ‘gather (intr.)’ denotes that two or more individuals come together. As a consequence of this formal and semantic association, διαλέγομαι adopted the passive aorist form διελέχθην from (συλ)λέγομαι - (συν)ελέχθην ‘I gathered’. A strong indication in support of the association of διαλέγομαι ‘discuss’ with (συλ)λέγομαι ‘gather (intr.)’ is the anomalous perfect form δι-είλεγμα that διαλέγομαι has in common with συλλέγομαι (συν-είλεγμα). It is probable that δι-είλεγμα was created after the example of συν-είλεγμα. In the same fashion, the more recent aorist passive form διελέγην (first in Aristotle) was probably created by analogy with συλλέγομαι: συνελέγην.299

In the sections above (3.2.3.1-5), we have seen that the passive form extended sporadically to four verb classes, these being the perception verbs (e.g. όφθησανθην), speech act verbs (e.g. ἔλοθρησκην), mental activity verbs (e.g. ἔπελαγισθην), and reciprocal verbs (διελέχθην). These sporadic extensions are represented by dashed arrows in Fig. 2. Once more, it can be observed that the passive aorist form extends to immediately adjacent meanings.300

298 Cf. διακοντίζουμαι (+ dat.) ‘contend with others at throwing the javelin’ vs. ἄκοντιζο ‘hurl a javelin’.

299 Note that λέγω ‘speak’ has the passive aorist ἐλέχθην (or ἔρρηθην) and the middle-passive perfect λέλεγμα.

300 The expansion of the passive aorist form continues after the Classical era. For example, a passive form with reciprocal meaning μεχέσθητι ‘fight’ occurs in Epictetus (Disc. 4.9.11). Eventually, the sigmatic middle form disappeared completely. Thus, in Modern Greek we only find ‘passive’ aorist forms, as for instance, δέχηται ‘I accepted’ (cf. Classical Greek ἐδέξαμην), εὐχήθηκα ‘I wished’ (cf. ἡδύζησεν), πλύθηκα ‘I washed myself’, σκέφηκα ‘I considered’ (cf. ἐσκεφήσθηκα), συμβουλεύθηκα ‘I got s.o.’s advice’ (cf. συνεβουλεύσαμαι). The Modern Greek aorist δέχηται may be a descendant of the isolated form ὑποδέχθητες at E. Held. 757. Remarkably, the sigmatic middle form has been preserved in the singular middle imperative form, e.g. θεωρησον ‘be considered, consider yourself’ (= Classical Greek θεώρησο).
3.2.4 Root and thematic aorist

So far, the passive aorist in -η- and -θη-, and the sigmatic middle aorist have been discussed. In this section, the root and thematic aorist middle forms will be looked at briefly. Here, once again, the gradual expansion of the passive aorists in -η- and -θη- can be observed.

Contrary to the sigmatic middle aorist, in Homer the root and thematic aorists do occur with a passive meaning. Take, for example, βλητό, ἀπέκτατο, ἔσχετο, (ὁπ)ολόμην (Schwyzer, I: 97). The first two are replaced by ἔβληθην (Classical Greek) and ἔκτάθην (already in Homer); the latter two forms even survived through the Classical age.301 These middle verbs are relics of an older pattern, going back to Proto-Indo-European, in which middle aorists (including the sigmatic middle aorist) could be used in a passive meaning.302 This pattern was altered by the spread of the passive aorists in -η- and -θη-.

The middle root aorist occurs in almost all middle meanings. However, after Homer many root aorists disappeared.303

<table>
<thead>
<tr>
<th>Passive</th>
<th>E.g. ἔκτατο (Hom.) 'was killed', βλητό (Hom.) 'was hit'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous process</td>
<td>πλητό 'became filled', φθημην (Hom.) 'perished'</td>
</tr>
<tr>
<td>Mental process</td>
<td>ὁνητο 'benefitted from, enjoyed', ἔτην 'I endured, dared'</td>
</tr>
<tr>
<td>Body motion</td>
<td>ἀλτο (Hom.) 'jumped', ἐσσυνοτο (Hom.) 'moved (intr.)', ὁρτο (Hom.) 'rose up'</td>
</tr>
<tr>
<td>Collective motion</td>
<td>ζωμβλητο (Hom.) 'met with', λύτο (Hom.) 'dissolved (intr.)'</td>
</tr>
<tr>
<td>Speech act</td>
<td>εὐκτο (Thebais) 'boasted, prayed'</td>
</tr>
<tr>
<td>Indirect reflexive</td>
<td>ἐτο 'sent s.o./s.th. for oneself', ἐθετο 'put s.o./s.th. for oneself', -δοτο 'give away (for oneself)'</td>
</tr>
</tbody>
</table>

The thematic middle aorist occurs practically in all middle usage types, in Homeric as well as in Classical Greek.304

301 The passive form ἔσχεθην appears only late (Arrian).
302 In Indo-Aryan, middle s-aorists with passive meaning are found, e.g. Skt. áśrodhvam, Av. asrāždām 'you have been heard' (see Thumb-Hauschild 1959: 305, Reichelt 1978: 298).
The thematic middle, however, does not occur with verbs of mental activity nor with direct reflexives. With the passive and intransitive middle uses the thematic middles were often replaced by passive aorist forms. In the following, I will discuss a number of verbs that show an alternation in the aorist stem between the passive form and the root or thematic form.

ηγορομην vs. ηγερθην (έγειρομαι)
Both the thematic middle aorist and the passive aorist form occur frequently. Both are already to be found in Homer, though the - older - thematic formation more frequently. A pattern of distribution is hard to discern. In Attic (as in epic), there is a preference for the thematic middle, whereas Herodotus and Xenophon (possibly one of his unattic features) always have the passive form.

έλιπομην vs. έλειφθην (λείπομαι)
A priori one could interpret λείπομαι without an object either as an intransitive middle 'stay behind', or as a passive 'be left behind'. Unambiguous examples of the passive meaning, however, are extremely rare. In fact, the only example I am aware of is καπα-λειφθέντες υπὸ Δραψίου (Hdt. 5.1.1). In other words, it is safe to interpret instances of λείπομαι as intransitive middles, unless the passive meaning is expressed explicitly (e.g. by an agent-phrase).

The aorist formations έλιπομην and έλειφθην are distributed according to a fairly clear-cut pattern. In Homer, only the thematic middle aorist is found. The passive form does not appear until Pindar. In Classical Greek the thematic middle and the passive aorist forms are divided along semantic lines. The thematic form is used as an indirect reflexive 'leave behind for oneself' (Euripides, Herodotus, Thucydides, Antiphon, Plato, Demosthenes; not attested in Homer), while the passive form is used in the intransitive meaning 'stay behind'.

έπιθομην vs. έπεισθην (πείθομαι)
In Homer, only the thematic aorist occurs; έπεισθην, which is clearly young considering its e-vocalism, first appears in Aeschylus. Besides in poetry, the thematic form rarely occurs. In Herodotus, έπιθομην occurs three times, two of which are uncertain (6.80 and 6.140.2), and the third is from an oracle. Έπεισθην, on the other hand, is used twice.

305 In Doric (Epicharmus [5th c. BC], Archytas [4th c. BC]), and late in Attic (Philemo, 4th/3rd c. BC), a passive form έγεινθην appears. However, if the passive future γεινθήσομαι in Plato (Prm. 141) is sound, it must have existed earlier in Attic.
Further, ἐπίθοντο occurs in a decree from 387/6 BC (IG Π2 29.14). It appears that, in Classical prose, ἐπείσθην has replaced ἐπιθόμην in the meaning ‘obey, believe’. However, it is quite possible that the opposition between middle ἐπιθόμην and passive ἐπείσθην was very much alive in more colloquial Attic. In Aristophanes, ἐπιθόμην is used in the meaning ‘obey, believe’ (e.g., Nu. 73, 119, Eq. 962, V. 573), whereas ἐπείσθην has the strictly passive meaning: ‘be persuaded’ (e.g., Nu 866, Pl. 507 [ἀνα-]).

ἐπηράπομην vs. ἐπηράππην/ἐπηράσθην/ἐπηράμην (τρέσμοι)
Certainly one of the most complex verbal paradigms is that of τρέσμοι. In Classical Greek, five different middle and passive aorist forms occur: ἐπηράμην, ἐπηράπομην, ἐπηράππην, ἐπηράσθην, and ἐπηράμην. The sigmatic middle is only used in the indirect reflexive meaning (e.g. Hdt. 7.225.1 ‘rout’). The thematic and passive formations have the same meaning, this being, in most cases, intransitive ‘turn’. There are no certain instances of τρέσμοι with a passive meaning. The single instance that actually is mentioned by LSJ and Kühner-Blass, II: 554-5 is:

(20) Ἄ τε πο ζύνητι δυστυχήματα ἐγένετο πολλά καὶ δεινά, ὅν καὶ τέλος ἢ πατρίς αὐτοῦ ὀλὴ ἀνεπράππετο (...) (Pl. Cra. 395d)

The many terrible misfortunes that happened happened to him in his life, the last of which was that his country was completely overthrown.

Since there is no agent in the context, the middle could well be interpreted as an intransitive middle, i.e. ‘turned over, fell over’, instead of ‘be turned upside down, be overthrown’.

'Ἐπηράσθην appears to be restricted to Homer (o 80) and Herodotus (4.12.3, 9.56.2 ['turn, make one’s way']; 1.7.4 [ἐπι-: ‘be entrusteed with’]). In Herodotus, the form could be a special Homeric feature since the form that is used most commonly in Herodotus is ἐπηράπομην (‘turn’). It should be noted, however, that Herodotus shows a variant present form τράπο. Therefore, it is often unclear whether one is dealing with a form of the present stem or with one of the aorist stem. In 4.12.3 and 9.56.2, the reading is uncertain (at the former Rosén’s Teubner edition prints τραφέντες). In Attic, the common form is ἐπηράςθην. The passive aorist forms ἐπηράσθην and ἐπηράπ_dw are clearly marginal. Ἐπηράσθην cannot be old (cf. ε-voicalism); it occurs in Antiphon (3x ἐπι-), Euripides (1x), and Xenophon (4x). Ἐπηράπομην occurs mainly in drama, probably as a metric alternative to ἐπηράπομην, and further in Plato (1x) and Xenophon (2x).

To conclude, there is a tendency for thematic middle aorists to be replaced by passive aorist forms. This tendency can be observed in two instances: in the case of ἐπιθόμην, the

306 In Gorgias’ Helen (Fr. 11.76), Blass conjectured πειθέθην, probably because of the coordinated aorist infinitive συναντέσοι. The mss. have πειθέθην. Blass’s conjecture is not very attractive since it would constitute the sole instance of the thematic aorist in Attic prose.

307 This semantic opposition is also found in the future stem. Middle πειθόμαι means ‘I will obey, believe’, whereas πειθέμαι is strictly passive ‘be persuaded’ (see also ch. 4).

308 The passive of the compound ἐπιπέρεσω ‘to entrust s.th. to s.o.’ (+ dat. and acc.) is always expressed by a passive aorist form, never by a thematic middle, e.g. Hdt. 1.7.4, Antipho 4.3.4, 4.7.5, 4.8.3.
common form in Homer, that is replaced by ἐπείσθην, the common form in Classical Greek, and with intransitive ἔλπισμην (Homer), which is replaced by ἐλείσθην (Classical). Remarkably, this tendency is not general since ἡγερόμην and ἐτραχόμην do not appear to give way to ἡγέρθην and ἐτράχητην/ἐτρέψθην. Language change, as we know, is unpredictable.

3.3 The Abstract Meaning of the Passive and the Sigmatic Middle Aorist

In the previous sections, the polysemous ('low-level') structure of the passive aorist was dealt with. The question remains to be answered whether or not it is possible to formulate a more abstract ('high-level') characterization of the meaning of the passive aorist form. In traditional Greek grammars, no attempts have been made to pin down the meaning of the passive aorist form. Schwyzer (I: 756) only notes that there is no sharp division between the passive use of the aorist in -η- (e.g. ἔγραφη) and the original intransitive use (e.g. ἔφρων), and that the aorist in -∅η-, too, has both an intransitive and a passive meaning. What these two meanings have in common exactly is given no further elaboration. Additionally, in what respect the passive aorist differs semantically from the sigmatic middle aorist also remains unclear. The aim of this section will be to try to fill the gap left by the Greek grammars to date in that I will try to establish the abstract meaning (or in Langacker's terms abstract schema) of the passive aorists in -(∅)η-. Naturally, the sigmatic middle aorist form will also be dealt with, since the passive aorist is in complementary opposition to the sigmatic middle aorist.309

In section 1.3.1, it was argued that the passive aorist form cannot be explained as a detransitivizing strategy, mainly because many passive aorists do not have active transitive counterparts (sometimes called ‘passiva tantum’). Therefore, I have opted for a purely semantic explanation that is independent of the existence of an active form. Now let us first consider the state of affairs in Homer.

In section 3.1.1, it was shown that the aorists in -(∅)η- occur in the following meanings: passive, spontaneous process, the mental process meaning, the body motion, and the collective motion. The question, subsequently, arises as to how the abstract schema subsuming these meanings should be defined. I would like to suggest that the abstract meaning of the passive in -(∅)η- can best be characterized in relation to the notion of prototypical patient. In section 1.1.2, the prototypical patient was defined, citing Langacker 1991: 285, as "an inanimate object that absorbs the energy transmitted via externally initiated physical contact and thereby undergoes an internal change of state". In other words, the essential properties of the prototypical patient are:

- Inanimacy
- Non-volitionality
- Presence of an external initiator
- Internal change of state.

309 I will not go into the abstract meanings of the root and thematic aorists. As we have seen in section 3.2.4, unlike the sigmatic middle and passive aorists, they can be used in all meanings. In this respect they are no different from the middle voice of the present stem. Hence, the abstract meaning of the middle voice in the present stem and the middle root and thematic aorist are identical, this being subject-affectedness.
Now consider the following table (from section 2.2):

Table 3: The middle uses: semantic feature analysis

<table>
<thead>
<tr>
<th>Aorist form</th>
<th>Subject = Animate</th>
<th>Subject = Volitional</th>
<th>Subject = Beneficiary</th>
<th>Subject = Experimenter</th>
<th>Subject = Patient</th>
<th>Subject undergoes Change of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>έκοινθήθην</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+/-</td>
</tr>
<tr>
<td>Spontaneous Process</td>
<td>έτάκην</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Mental Process</td>
<td>έψοβηθηθην</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+/-</td>
<td>+</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>ηιγέρθην</td>
<td>+</td>
<td>+/-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Body Motion</td>
<td>ξωρ Omni</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Reciprocal</td>
<td>ιμαχεσάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Direct Reflexive</td>
<td>δλουοσάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Perception</td>
<td>έγευοσάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mental Activity</td>
<td>ηλογοισάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Speech Act</td>
<td>διοιδορεσάμην</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Indirect Reflexive</td>
<td>έκοινθήθην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

In the table it can be observed that the passive forms have subjects which are prototypical patients, or which have a semantic feature in common with the prototypical patient. Especially the subjects of passives and the spontaneous processes are, or are at least similar to, prototypical patients. Their subjects are non-volitional and, in most cases, physically affected. Spontaneous processes always involve an internal change of state; the passive may, but need not, involve a change of state.\(^\text{310}\) Furthermore, the passive has an external initiator and the spontaneous process meaning typically has an inanimate subject. Recall that, in section 3.2.1, I claimed that, in an earlier stage of the language, the formation in -\(\theta\eta\)- only occurred in the passive meaning and the spontaneous process meaning. These meanings can, therefore, be considered the source uses of the category.\(^\text{311}\) The remaining meanings of the passive form have subjects that diverge from the prototypical patient. Nevertheless, they have one or more semantic properties in common with the prototypical patient. The mental process meaning is non-volitional, and the collective motion middle has a reduced volitionality. With the exception of certain passives, the one feature which their subjects all have in common with the prototypical patient is that they undergo a change of state (see table above).\(^\text{312}\)

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\(^{310}\) E.g., έτάκην denotes a change of state: 'melted (intr.)' (spontaneous process) or 'be melted' (passive). On the other hand, the passive έκοινθήθην 'I was seen' does not denote a change of state of the subject.

\(^{311}\) However, the notion of prototypical patient remains highly important to the semantic organization of the aorist in -\(\theta\eta\)- considering the enormous preponderance of the tokens with passive meaning in the frequency figures. Out of 90 occurrences of the aorist in -\(\theta\eta\)-, 54 had a true passive meaning (see Table 4). It is therefore justified to consider the passive as the prototypical meaning of the category.

\(^{312}\) It should be noted that, in the present stem, mental process middles denote a (transitory) state, e.g. ψοβήθημα 'I am afraid'. In de aorist stem, however, these verbs designate a change of state, e.g., έψοβηθηθην 'I became afraid'.
Now whereas the various meanings of the passive aorist cluster around the prototypical patient, the sigmatic middle aorists are oriented towards the other extreme: the prototypical agent. In Homer, the subjects of the various sigmatic middle aorists were all animate and volitional with the exception of mental processes such as χολάσαται ‘became angry’. In Classical Greek, however, sigmatic middle aorist are volitional without exception (cf. also Rijkbaron 1994: 141, 144, 155).\(^{313}\)

I would like to address one final issue here. The intriguing question remains to be answered why the active-middle-passive trichotomy is restricted to the aorist stem. I would suggest that the prototypical transitive model can provide us with an explanation. One of the crucial features of the prototypical transitive is telicity (Hopper & Thompson 1980, and see section 1.1.1). Telicity - here viewed as a semantic property of the entire clause - enhances the cognitive saliency of the action. This enhanced saliency is to be explained in the following manner:

(21) \textit{Affectedness of the patient}: "The more completed an event is, the more likely it is that the patient in fact registers to the full the effects of the action" (Givón 1984: 157)

In other words, telicity increases the degree of affectedness of the patient. The present stem is, therefore, associated with a relatively low degree of affectedness, due to its non-completed (imperfective) semantics, whereas the aorist stem involves a high degree of affectedness as it involves a completed event. Above, I argued that the passive aorist in -\(\text{-}ζ\eta\) - marked that the subject is, or is at least very similar to, a prototypical patient. This explains why the passive form occurs exclusively in the aorist stem rather than in the present stem. The meaning of the passive forms in -\(\text{-}ζ\eta\) - (resemblance of subject to prototypical patient), and the meaning of the aorist (completedness of event), are strongly associated. For example,

\begin{align*}
\textit{Middle Present:} & \ \varepsilon\text{τήκετο} \ 'it was melting' \ (\text{non-completed change of state}) \\
\textit{Passive Aorist:} & \ \varepsilon\text{κάλεσα} \ 'it melted' \ (\text{completed change of state: high subject-affectedness}) \\
\textit{Middle Present:} & \ \varepsilon\text{φοβέτησε} \ 'I was afraid' \ (\text{mental state}) \\
\textit{Passive Aorist:} & \ \varepsilon\text{φοβήθησα} \ 'I became afraid' \ (\text{completed change of state: high subject-affectedness})
\end{align*}

In these examples, the subjects of the passive aorists are more highly affected than those of the middle presents because they refer to a completed change of state.

In this section, I have explained the abstract meaning of the various aorist formations with reference to the notion of prototypical patient. It was argued that the subject of the formations in -\(\text{-}\eta\) - and -\(\text{-}ζ\eta\) - shared one or more - depending on the historical stage - crucial semantic feature with the prototypical patient. The occurrence of the passive form in the aorist stem was explained by stating that the completedness of the event increases the degree of subject-affectedness.

\(^{313}\) Note that, with regard to body motion verbs such as \(\varepsilon\text{κλίνθησα} \ 'I lay down'\) and \(\varepsilon\text{φθορήθησα} \ 'I started off'\) the patient aspect is apparently construed as being more salient than the agent aspect, considering that they have a passive aorist form.
CHAPTER 4

The Middle and Passive Voices in the Future Stem

4.0 Introduction

The co-existence of middle and passive forms in the future stem has been an issue among classical linguists ever since the 18th century. The controversy focuses on the question of whether or not a semantic distinction between the two exists, and, if so, what exactly the character of this distinction might be.\[^{314}\] One of the most important hypotheses claims that the formal contrast between middle and passive in the future stem corresponds with the contrast between present stem and aorist stem. The most prominent advocate of this theory was Friedrich Blass (1892), but before his time it had already been defended by G. Hermann and G. Stallbaum. The hypothesis amounts to the following: the middle future expresses a continuing action (Aktion der Dauer, as Blass (1892: 290) calls it), whereas the passive future expresses a completed event (Aktion der Vollendung). To demonstrate this distinction, Blass takes the pair φανούμαι : φανήσεται (by far the most frequent middle-passive future forms). As illustrative examples he cites (among others):

(1) (...) αἰτίς [= ταῖς συνθήκαις] ὁ μὲν Λεύκον ἐμμένων φανεῖται (Dem. 20.37)
And it will be clear (time and again) that Leucon observes them [the covenants].
(mand wird sehen, daß L. stets dem Vertrag treu bleibt [transl. Wackernagel 1920: 202])

(2) [Leucon] (...) οὗτος, ἄν σκοπήτε, φανήσεται συνεχῶς ἡμᾶς εἰ ποιῶν (Dem. 20.30)
(...) he will be found, if you will consider it, to be a perpetual benefactor.
(wenn ihr genau seht, wird sich herausstellen dass er euch gutes erweist [transl. Wackernagel 1920: 202])

According to Blass, the first example involves a continuing appearance ("Dauernden Anschein"). The pillars are mentioned that declare the covenant between Athens and Leucon. The idea is that as long as these pillars remain, it will be clear whether each one of the parties keeps the covenant (Blass 1892: 269). The second example denotes a punctual event. While one is considering the matter (present stem σκοπήτε), it will become clear at once (cf. Blass: "Ergebnis der Prüfung"). The semantic contrast between middle and passive future is further illustrated by the classic example from Plato’s Republic:

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\[^{314}\] Another interesting issue is the occurrence of middle future forms of - mostly intransitive - active presents (ἐμί - ἔρωμα). From a synchronical point of view, the middle inflection of these futures can be explained by their semantics. All verbs in question involve a physical or mental affectedness of the subject, e.g. perception ἰδούσαμαι, motion μήσομαι, receiving ληφομαι, change of state θανοῦμαι. ἔρωμα appears to be the only exception. Historically, these middle futures may be explained as former desideratives. The middle voice, then, expressed the mental involvement of the subject. For further details, I refer to Rijksbaron (2002: 156).
Here the alternation of middles and passives is explained by Blass as follows: the former two actions (μαστιγώσεται, στρεμβλώσεται) are necessarily repeated, whereas the latter two (ἐκκαυθήσεται, ἀνασχυνδυλευθήσεται) can only be performed once (Blass 1892: 273-4).

Besides the pair φανοῦμαι: φανήσομαι, Blass discusses almost all other futures with alternating middle and passive forms in defence of his aspectual approach. Finally, he comes to the conclusion that the schema of the verbal paradigm as it was printed in Kühner-Blass - for which he was co-responsible as reviser of the first volume - must be altered. The essence of the alteration is that the future is not treated as a distinct stem on a par with the present stem, aorist stem and perfect stem. Instead, it is partly subsumed under the present stem, partly under the aorist stem, and partly under the perfect stem. In other words, middle future ποιήσομαι is considered the future form corresponding with present ποιοῦμαι and imperfect ἐποιήμην; ποιηθήσομαι is the future of the aorist stem (cf. ἐποιήθην); πεποιήσομαι is the future of the passive perfect πεποίημαι and the pluperfect ἐπεπειθήμην (Blass 1892: 290).

Blass’ aspectual hypothesis is adopted by Gerth, who formulates it thus:

"(…) dass das auf dem passiven Aorist auf -ην, -θην gebildete Futur auf -ήσομαι, -θήσομαι die zukünftige Handlung in aoristischem Sinne also momentan, eintretend, einmalig bezeichnet, dagegen das an dem Präsensstamm sich anschliessende Futur auf -σομαι in präsentischem Sinne als dauernd, sich entwickelnd, sich wiederholend" (K-G, I: 114).

In his Vorlesungen über Syntax, Wackernagel (1920: 202-4) qualifies the aspectual hypothesis in some respects. He argues that φανοῦμαι can also be used in an ingressive-aoristic meaning, and φανήσομαι also in a durative meaning. In alliance with Stahl (1907) he states that the "treibende Moment" behind the creation of the morphological distinction middle vs. passive future is the need for specific (semantically unambiguous) middle and passive forms. The aspectual distinction, according to Wackernagel, could have played a secondary role in the development of the distinction. In the process of the development of the passive future form, Wackernagel distinguishes four stages (1920: 203).

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315 The translations of Plato in this chapter are derived, sometimes adjusted, from Cooper (1997).

316 Ingessive-aoristic and durative are Wackernagel’s terms. These correspond with the current terms perfective and imperfective, respectively.
Stage (i): The formation φανήσομαι did not yet exist. Φανούμαι could be used both with a durative aspect and an aoristic aspect.

Stage (ii): Beside the older form φανούμαι, expressing both aspects, φανήσομαι is created, which specifically expresses aoristic aspect.

Stage (iii): The aspectual contrast between the two forms fades away. Φανήσομαι is used increasingly to express durative aspect as well.

Stage (iv): The middle future is no longer used in an intransitive or passive meaning.

In sum, according to Wackernagel the aspectual distinction only existed in stage (ii). Moreover, according to Wackernagel, this distinction was not complete since the middle future form could be used in both meanings. Or, to put it in somewhat anachronistic terms, the middle future is the unmarked member in a privative opposition. This stage lasted, according to Wackernagel, from Homer until the 5th century BC.

Now let us consider the state of affairs in Homer. In Homer, only two verbs have a passive future formation: δασησαι en μηγησεσθαι. Both future formations appear to express ingressive meaning, and can therefore be regarded as futures of the aorist stem:

(5) a. ὡσα δ’ ἐνι μεγάροισι καθήμενος ημετέροισι πεύσομαι, ἦ θείς ἐστίν, δασησαι, συν το κεύσω (γ 187)
   But what tidings I have heard as I abide in our halls you shall hear, as is right, nor will I hide it for you.
   b. πῶς γὰρ ἐμεύ σὺν, ἐξείνα, δασησαι, εἶ (...) (τ 325)
   For how shall you learn of me, stranger, whether (...).
   c. ἄλλον οὔτε δὴ τάχ’ ἔμελλε μηγήσεσθαι φιλάκεσσι (Κ 365)
   But when he was going to mingle with the sentinels (...).

However, the middle future, too, could express ingressive meaning. Consider the following example:

(6) ὡς Ὅδυσσεως κούρησιν εὐπλοκάμοισιν ἐμελλε μηξεσθαι, γυμνὸς περ ἑόν (ζ 136)
   Even so Odysseus was going to mingle with the fair-tressed maidens, naked though he was.

Further, the middle form μηξομαι could also be used in an iterative sense (i.e. ‘presentic’).

(7) θυμὸς δ’ ἔστι νῶν ἐώλπει μηξεσθαι ξενί ἦδ’ ἄγλα ἄδρα διδόσειν (ω 314)
   And our hearts hoped that we should yet meet as host and guest and give one another glorious gifts.

Notice the coordination with the anomalous future of the present stem διδόσειν. It can be concluded that, as Wackernagel claimed, the middle future is aspectually neutral in

317 The one instance in Homer seems to confirm this: ἔθελεν γὰρ μὲν ἐδέμην πρώτα φανείσθαι/ Σκύλλην (μ 230) (‘For from there I expected that Scylla would first appear’); φανούμαι here is used with an ingressive (‘aoristic’) meaning.

318 Wackernagel summarizes it thus: “Also nur bei φανήσεσται und nur ganz vorübergehend, bei den ersten, die die Form brauchten, ist eine Spezialbedeutung nachweisbar: darauf reduziert sich in diesem Fall Blassens Theorie” (Wackernagel 1920: 203).

319 Note that Iliad K (the Doloneia) might be an interpolated episode.
Homer. Note that, from a morphological point of view, the middle formation μίξομαι is also neutral since it neither possesses the present morpheme -σγ- (< *-γ-σκ-), nor the passive aorist morpheme -ην.-.

Wackernagel states that the distinction was already fading away in Plato (stage iii). To support this claim he cites the following instances:

(8) ἀλλ' ἐγώ διὰ παντᾶς τού βίου δημοσίερ τε εἰ ποῦ τι ἐπροέξε τοιούτος φανοῦμαι, καὶ ἰδίω τὸ συντός σύντος (...) (Pl. Ap. 33a)
Throughout my life, in any public activity I may have engaged in, I will be found to be the same man as I am in private life (...).

(9) a. ἡ τούτο μὲν οὖ, σύντοὺς δὲ τρεφόμενοι σοῦ σεβότον βέλτιον θρέψωντα καὶ παιδεύοντον, μὴ συννόντος σοῦ συντοῖς (Pl. Cr. 54a)
Or perhaps you will not do that, but if they are brought up here while you are living, will they be better brought up and educated if you are not with them?

b. θρέψωντα δὲ δὴ ἡμῖν οὖσαι καὶ παιδευθήσονται τίνα τρόπον; (Pl. R. 376c)
How will they be brought up and educated by us?

Wackernagel paraphrases example (8) by "es wird sich an mir herausstellen", thus interpreting it as ingressive. However, a perfect alternative would be to interpret φανοῦμαι as an event taking place repeatedly, i.e., "each time, I will be found to be, etc.". As for the latter instances, in (9a) θρέψωνται corresponds with the present participle τρεφόμενοι. In other words, both θρέψωνται and παιδεύομαι designate non-completed events. As for (9b), it is conceivable that θρέψωνται relates to growing up as an ongoing process, while παιδευθήσονται relates to the completion of the education. In sum, it is possible that the aspectual distinction was still present in the 4th century. In the next section (4.1), I will argue that it did indeed exist.

First I would like to note that the aspect hypothesis was not accepted by everyone however. Stahl (1907: 83-7) rejects it, and advocates a diathetical distinction instead: "Daß es sich bei den Futura dieser Art eher um ein Vorwiegens passiver oder medialer Bedeutung als um eine Zeitart handelt, zeigt sich auch bei ἀπαλλάσσεσθαι" (Stahl 1907: 85). Stahl renders passive ἀπαλαλαγήσεσθαι with 'befreit werden, etwas los werden' (as examples he cites Hdt. 2.120.3, Th. 4.28.5, Pl. R. 445b, Dem. 22.37), and middle ἀπαλλάξεσθαι with 'loskommen, sich einer Sache erledigen' (Th. 4.128.5, 8.2.1, Pl. Euth. 15e, R. 465d). In other words, middle ἀπαλλάξωμαι is volitional, whereas

320 In Homer, we also find a contrast between the active future forms ἔξω and σχήσω. The former corresponds with the present stem ἔχ-, and means, according to Chantraine (1958: 446) 'avoir, garder' (e.g. P 232, Σ 274, ζ 281). The latter corresponds with the aorist stem σχ-, and means 'arrêter, contenir, suspendre' (e.g. Λ 820, Ν 151, Σ 100, Ρ 182, Ω 670, χ 70, 248).

321 In connection with this example, Kühner-Gerth (I: 117n2) plead in defense of the aspect theory: "Wenn in einzelnen Fällen, z. B. Pl. civ. 376, θρέψωνται καὶ παιδευθήσονται der Bedeutungsunterschied der beiden Futura nicht klar zu Tage tritt, so ist zu bedenken, dass auch die entsprechenden Tempora der Vergangenheit, Imperfekt und Aorist, mannfache zweifelhafte Grenzfälle aufzuweisen haben."

322 Magnien (1912: 279-80), in his monograph on the Greek future, allies with Stahl. For a rejection of Blass' hypothesis, see also Hartmann (1935).
passive ἀπαλλαγήσομαι is non-volitional. I will return to Stahl’s view at the end of this chapter.

According to Schwyzer-Debrunner (II: 265-6), the outcome of the debate seems to be beyond any doubt. They consider the aspectual hypothesis untenable. Amongst others, Wackernagel and Chantraine are mentioned as adversaries of the aspect hypothesis. However, as we have seen above, Wackernagel has a finely tuned judgement on the matter. Chantraine, too, takes an intermediate position (1928: 13-4). Chantraine admits that the passages cited by Blass are not very convincing, but he concludes, "(...) Demosthène n’emploie pas φανώμαι et φανήσομαι sans nuance de sens. (...) φανήσομαι indique un résultat obtenu, une conclusion qui apparait après examen." Schwyzer-Debrunner do not do justice to this intermediate position. Instead, they adduce alternative factors that may explain the choice between the middle and passive future form as, for example, the length of the verb stem (following, in this respect, Wackernagel, who mentions it as a secondary factor), and word rhythm (following Hartmann 1935: 128). Schwyzer-Debrunner do not refer to a diathetical distinction between the two future forms. Could it be that Schwyzer-Debrunner tacitly presuppose the validity of this explanation, and that they use the length of the stem and word rhythm only as secondary explanations? In any event, Schwyzer-Debrunner’s treatment of the matter is highly unsatisfactory. When we overlook the battlefield, an analogy with the battle for Thyrea, as described by Herodotus, forces itself onto us. Like Alceno and Chromios, Schwyzer-Debrunner claim victory prematurely. The aspectual hypothesis has been rejected before it has been refuted adequately.

Before going into the aspect hypothesis any further, I would like to make some remarks on the morphological aspect of the hypothesis. It is obvious that the passive future form is connected to the passive aorist form since both are formed with a stem in —(θ)η—. Conversely, the morphological relationship between the middle future and the present stem is tenuous. With regard to a large number of verbs, the present and the future stems are different. For example, φαίνομαι contains the stem φαίν- (< *φαν-γε/o-), whereas future φανούμαι is formed with the stem φαν(ε)- (< *φανε-σε/o-). This difference in stem form applies to almost all original yod-presents (i.e. also to verbs in -όξω en -ιξω). A difference in stem form is also found with most reduplicated presents (δίδωμι, τίθημι)324, nasal presents (δείκνυμι, λαμβάνω, τέμνω), presents in -σκ- (ἐφίσκω), and suppletive verbs (ὁράω vs. ὁροῦμαι). In other words, it is not self-evident to assume a connection between the future middle and the present. It is impossible to determine whether the future stem is derived from the present stem or from the verbal root for thematic presents such as ποιεῖσθαι (without yod, -σκ-, etc.) only, because the two are identical.325

323 Cf. also Moorhouse (1982: 176-7), who denies the existence of an aspectual distinction in Sophocles.

324 Interestingly, in Homer the future formation διδόσαμεν (v 358), διδόσατε (ο 314) occurs (see also example (7)), formed on the present stem of δίδωμι. This future form has an iterative (‘presentive’) meaning. The formation can be regarded as a parallel to the future that is based on the aorist stem, cf. δοθήκα (γ 187, τ 325), μεγίστοθαι (Κ 365). The future of the present stem probably vanished, contrary to the thriving ‘aorist’ future, because it could only yield morphologically transparent forms with few present types (namely the reduplicated present, and potentially also the nasal present).

325 From a synchronical point of view, the future morpheme -σε/o- is both related to the present morpheme -ε/o- and to the aorist morpheme -σ(α)-.
With respect to the morphological relationship between the future stem and the present and aorist stems one can take two alternative positions: (1) It can be assumed that the middle future has specialized to a 'presentic' meaning under the influence of the semantic opposition with the 'aoristic' passive future, or (2) one might assume a privative opposition. In other words, the middle future is semantically neutral, whereas the passive future is semantically marked with a feature + perfective. This is approximately Wackernagel's (1920) view, as we have seen above. Notice that this semantic analysis is reflected in the morphological system in a very natural fashion. The semantically neutral φανήσομαι is neither formed with the present stem φαν-, nor with the aorist stems φηνα- (active and middle) or φανν- (passive), but, instead, it contains a separate stem φαν(ε)\. Conversely, the 'aoristic' future φανήσομαι contains the aorist stem φανν-.

In the next section, the oppositional pair φανούμαι and φανήσομαι will be discussed, and it will be investigated if they, as Blass contends, express an aspectual contrast. In section 4.2, the question will be raised whether this aspectual contrast also occurs with other verbs. Finally, in section 4.3 I will argue that Stahl was not entirely incorrect in his claim that the middle and passive future form expressed middle and passive meaning.

4.1 Aspect Revisited: the case of φανούμαι vs. φανήσομαι

The aim of this section will be to revive Blass' aspectual hypothesis. Following Blass, I will start my investigation with the most frequent pair of middle and passive future forms, these being φανούμαι and φανήσομαι.

An interesting feature of φανούμαι is that there appears to be a correlation between tense stem (present - aorist) and syntactic complement (infinitive - participle). This correlation is shown in the following Table 1. The instances of the 3rd person singular secondary indicative (i.e. ἐφαίνετο and ἐφάνη) were counted in Sophocles, Euripides, Herodotus, Thucydides, and Plato.

<table>
<thead>
<tr>
<th>Table 1: Ἐφαίνετο and Ἐφάνη: frequency figures of constructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>ἐφαίνετο</td>
</tr>
<tr>
<td>Ἐφάνη</td>
</tr>
</tbody>
</table>

It is clear from the figures in the table that the imperfect form ἐφαίνετο is construed more frequently with an infinitive complement, whereas Ἐφάνη prefers the construction with the participle. This distribution can be explained by the semantics of the two alternative constructions. The construction with infinitive involves a subjective view. The state of affairs denoted by the infinitive seems to be true to (a) particular person(s), whereas the speaker is not certain about its truth. In other words, the state of affairs expressed by the infinitive is non-factive. For our present purposes, it is important to note that this subjecti-

\textsuperscript{326} The dative complements occurring with all constructions are counted: infinitive, participle, ellipsis and absolute.
view ('seem to') is inherently stative. The construction with a participle-complement, on the other hand, involves an objective view. The state of affairs expressed by the participle is considered to be true by the speaker (factive value). Additionally, the difference with the former construction is that a change is involved: φαινομαι construed with a participle refers typically to the moment at which a particular state of affairs is recognized as being objectively true. Since the construction with a participle ('be found out to') involves a change of state, it inherently has a telic aspect.

The objective versus subjective contrast also has consequences for the frequency of a dative constituent. Dative constituents occur more often with the infinitive construction since, in general, it is of more importance who is the particular holder of the subjective view (e.g. When I was younger, the world seemed to me a happy place). The subject of an objective view is more often generic or easily understood on the basis of the context (e.g. Oedipus turned out to be his wife's son).

This difference in inherent aspect between the two constructions explains the different frequencies of present and aorist stem. Telic φαινομαι cum participle tends to occur in the aorist stem, whereas stative (atelic) φαινομαι with an infinitive prefers the present stem. Now, consider the following table:

Table 2: Φανούμαι and φανήσομαι: frequency figures of constructions

<table>
<thead>
<tr>
<th></th>
<th>+ inf.</th>
<th>+ part.</th>
<th>ell/ abs.</th>
<th>total</th>
<th>+ dat.</th>
</tr>
</thead>
<tbody>
<tr>
<td>φανούμαι</td>
<td>2 (2.7%)</td>
<td>9 (12.3%)</td>
<td>62 (84.9%)</td>
<td>73 (100%)</td>
<td>16 (21.9%)</td>
</tr>
<tr>
<td>φανήσομαι</td>
<td>0 (0%)</td>
<td>8 (21.6%)</td>
<td>29 (78.4%)</td>
<td>37 (100%)</td>
<td>5 (13.5%)</td>
</tr>
</tbody>
</table>

In the table above I have collected all instances of middle and passive futures occurring in the same authors as those of the previous table. A notable difference between the figures of the two tables is the lower frequency of the construction with an infinitive. From this we may infer that it is generally more relevant for something to be found to be the truth at some time in the future, than that something will seem to be so. There are, however, also some important similarities between the two tables. First, φανούμαι occurs more often with the infinitive construction than φανήσομαι does (2.7% vs. 0%), although, obviously, these low numbers do not provide definite proof. Second, φανήσομαι more often occurs with the participle-construction than φανούμαι does. The percentages, furthermore, are very similar to those of ἐφαίνετο and ἐφάνη: 12.3% vs. 12.8%, and 21.6% vs. 25.0%. The third and final similarity is that dative constituents occur more often with φανούμαι than with φανήσομαι (likewise ἐφαίνετο vs. ἐφάνη). These three similarities suggest that φανούμαι corresponds with ἐφαίνετο, whereas φανήσομαι corresponds with ἐφάνη.

For an analysis of the factive and non-factive values of the respective constructions with participles and infinitives, see Rijksbaron (1986).

When no predicative noun is present, it is hard to distinguish the auxiliary φαινομαι with ellipsis of the participle or the infinitive from the non-auxiliary usage of φαινομαι ('become visible'). When the subject is a concrete noun, an interpretation 'become visible, appear' is more likely. In the case of an impersonal subject, ellipsis of participle or infinitive is the more probable interpretation ('it appears that'). The cases with an abstract noun are highly ambiguous, e.g. E. Ion 1063 ἐλπίς (Hope will appear vs. There will appear to be hope), Th. 3.20.1 σωτηρία. The same holds for metaphorically used nouns, e.g. Hdt. 3.156.2 πόρος.
In the following section I will corroborate the evidence provided by these figures by an examination of a number of passages, taken from Sophocles, Euripides and Plato. No orators were chosen because, as will be shown below, they have an overwhelming preference for the passive future. Apparently, the passive future form was selected by them in a more or less routinized manner. This can be considered an indication that, at least in oratorical prose, the semantic contrast between the middle and the passive future was already fading away in the 4th century.

Let us first consider some typical instances of φανήσομαι in the meaning ‘be found, turn out’. Oedipus will be found out to be a born Theban and, moreover, the brother of his own children.

(10) εἶτα δ' ἔγγενής
φανήσεται ὘ηβαίος (S. OT 453)
But later he will turn out to be a native Theban (...).

(11) φανήσεται δὲ πατὶ τοῖς αὐτὸι ξυνὼν
ἀδελφὸς αὐτός καὶ πατήρ (S. OT 457)
And he will turn out to live together with his own children, as both a brother and a father (...).

In Plato, φανήσομαι is often used in anticipation of the conclusion of an argument. In Lg. 892c, for example, the Athenian anticipates the final conclusion that the soul is one of the first creations. As an intermediate step in the argument it must be proven that the soul is older than matter (σῶμα). This is the starting-point of the investigation.

(3) ΑΘ. (...) εὶ δὲ φανήσεται ψυχή πρώτοιν, οὐ πῦρ οὐδὲ ἄηρ, ψυχῇ δ' ἐν πρώτοις
gεγενημένη, σχεδὸν ὀρθότατα λέγοιτ’ ἂν εἴναι διαφερόντως φύσει. Ταῦτ’ ἔσθ’
οὕτως ἔχοντα, ἃν ψυχήν τις ἐπιδείξῃ προσβυτέραν οὕσαν σώματος, ἄλλας δὲ
οὖραμῶς.
ΚΛ. Ἀλθέστατα λέγεις.
ΑΘ. Οὐκόν τὰ μετὰ ταῦτα ἐπ’ αὐτὸ ὑπ’ ὑπὸ τοῦτο στελλάμεθα; (Pl. Lg. 892c)

ATHENIAN: If it will be found that soul came first, not fire or air, and it was one of the first things to be created, it will be quite correct to say that soul is preeminently natural. This is true provided you can demonstrate that soul is older than matter, but not otherwise.

CLINIAS: Very true

ATHENIAN: So this is precisely the point we have to tackle next?

Eventually, in 896b Clinias concludes that the soul is indeed the oldest thing there is.

Besides the construction, the semantic property of *iterativity* or *genericity* is relevant to the distribution of the future forms at issue. Iterativity and genericity may be indicated by the nature of the subject of the clause. In Sophocles, Euripides and Plato, there are 6 instances of φανοῦμαι with a clausal subject which point to an iterative or generic interpretation, these being ὅστις ἔστ’ ἀνήρ χρηστὸς (S. Ant. 662), πάντα ἄνδρα (Pl. Lg. 738e), τίς ἔκαστος (Pl. R. 537b), ὅσοι ... πάντες (Pl. Thet. 206e), πάντα (Pl. Chrm. 172b), and ἄλλα μυρία (Pl. Sph. 245e). Significantly, no subjects of this type were found in combination with the passive form φανήσομαι. In two cases (Lg. 738e, Chrm. 172b), φανοῦμαι has the subjective meaning ‘seem’; the three other instances involve φαίνομαι in the objective meaning ‘turn out, be found’. For example,
As was mentioned above, in general, φαίνομαι construed with a participle (‘be found out’) tends to have a passive future φανήσομαι. In these generic contexts, however, φανούμαι is found. We may conclude that the ‘presentic’ future φανούμαι can also be used to express the meaning ‘will be repeatedly/always found out’ (objective plus iterative/generic meaning).

Other indications of iterativity or genericity are the use of particular adverbs or the occurrence of a negation. In our corpus, φανούμαι occurs 4 times accompanied by an adverb with iterative or generic value. These are ἀεὶ [2x] (Pl. R. 591d, Lg. 871a), ἐκάστοτε (Pl. Lg. 689e), and τοτὲ μὲν ... τοτὲ δὲ (Pl. Lg. 860b). The former three cases involve the objective φαίνομαι ‘turn out, be found’.

For example,

(14) ὁ γὰρ νόμος ἀπαγορεύει καὶ ἀπαγορεύων ὑπὲρ πάσης τῆς πόλεως ἀεὶ φαίνεται καὶ φανείται (Pl. Lg. 871a)

The reason is that the law itself makes the proclamation, and it is always seen to make a proclamation on behalf of the state, and it will always be.

Once again, even though we are dealing with the objective meaning of φαίνομαι (cf. part. ἀπαγορεύων), we find the future form φανείται due to its iterative/generic meaning (ἀεὶ). Notice also the correspondence with the present φαίνεται.

A typical kind of generic expression are γνῶμαι. The following one is from Heraclitus, quoted by Plato:

(15) ἀνθρώπων ὁ σοφώτατος πρὸς θεόν πίθηκος φανείται καὶ σοφίς καὶ κάλλει καὶ τοῖς ἄλλοις πάσιν (Pl. Hi. Ma. 289b)
The wisest of men will be seen to be a monkey compared to god in wisdom and fineness and everything else.

Here too, it can be seen that the ‘presentic’ future form occurs with a generic value. There appears to be a tendency for negations to occur with φανούμαι, rather than with φανήσομαι. Of all the instances with a negation, 13 occur with φανούμαι, whereas 4

329 These kind of adverbs are not found in combination with φανήσομαι. The occurrence in the Republic (591d) will be discussed below.

330 For use of the future tense in gnomic expressions, see Magnien (1912: 169-70). One of his examples corroborates our point: μισῶν πολίτην ὡσις ὑφελείν πάτραυτος βραδὺς φανείται μεγάλα δὲ βλάπτειν τοσίς (Ar. Ra. 1427) (‘I hate any citizens who will turn out to be slow to aid, and swift to hurt, his town’). There is, however, for φανείται a variant reading πέρυς.
occur with φανήσομαι.\textsuperscript{331} This tendency can be explained by the link between negation and iterativity.\textsuperscript{332} Furthermore, in a number of instances of φανούμαι, the negation is combined with the adverb ποτέ, which reinforces the iterative or generic interpretation meaning (cf. its positive counterpart άει).\textsuperscript{333} 

Φανόμαι can also have the (original) concrete meaning ‘become visible, appear’ (without complement). Here, the ‘aoristic’ passive future form predominates. It occurs 8 times in our corpus; the middle future is used only twice. This can be explained by the inherent telic aspect of φανόμαι in the meaning ‘become visible, appear’ (an accomplishment).\textsuperscript{334} For example,\textsuperscript{335}

(16) φανήσομαι γάρ (...) 
doúλης ποδών πάροιθεν ἐν κλυδώνιῳ (E. Hec. 47) 
I shall appear (...) in the sea swell before the feet of a slave girl.

(17) ἡ γάρ τις ἀροτήρ ἡ τις οἰκέτες γυνή 
φανήσεται νῦν (...) (E. El. 105) 
Some farmer or slave woman will appear to us (...).

(18) καίτοι ἐγὼ ὄμην ἐνταῦθα ποιοφάνησομαι τὴν ἐπιστήμην, ἢν δὴ πάλαι 
ζητούμεν (Pl. Euthyd. 289d) 
And yet it was in this connection that I expected that the knowledge we have been seeking all this time would appear.

\textsuperscript{331} The instances of φανούμαι with negation are the following: S. OC 51, 804; E. Heracl. 769, Ph. 1623 [μή], Hipp. 332; Pl. Lg. 738e [μή], 744a, 770d [μή], Hi. Ma. 289b, 291d [μή], Prm. 131d, 132a, Alc. 1 109a, Sph. 245b; φανήσομαι with negation: Pl. R. 479a, Tht. 190e [μή], Sph. 216b, Mx. 248a.

\textsuperscript{332} The phenomenon that the presence of a negation may bring about an iterative interpretation has also been noted by Rijksbaron (1994: 15). An illustrative example is: ἐὰν γὰρ τί στὶ σφαίρῳ κακὸν πεποίηκας, ὀμολογήθη ἀδικεῖν: ἐὰν μὲντοι μὴ ἐγὼ φανήσωμαι κακὸν πεποίηκας μὴ διδακτεῖς, οὐ καὶ σὺ σὺ ὀμολογήθης μηθὲν ὑπ’ ἐμῷ οὖ ἀδικεῖσθαι; (Xen. Cyr. 5.5.13) (‘If it will be found that I have done you harm, I confess that I am in the wrong; but if it turns out that I have done you no harm and I intended none, will you then on your part confess that you have suffered no wrong at my hands?’). The aorist φανόμαι denotes a punctual event, whereas the present stem φανίσματι in combination with the negation (μηδέν) denotes an iterative event (‘it will turn out, time and again, that ...)

\textsuperscript{333} These instances are: S. OC 804, E. Heracl. 769, Pl. Lg. 738e, Hi. Ma. 291d. There is, however, one exception: καί πέρος (...) οὐδὲν φανίσεται ποτε (Pl. Sph. 261b) (‘And no limit (...) will ever appear’).

\textsuperscript{334} As might be expected, φανίνωμαι in the meaning ‘become visible’ occurs more frequently in the aorist stem than in the present stem. Of instances of the 3rd sg. imperfect ἐφανίνωτο counted in Table 1, there were no cases with the meaning ‘become visible’, except when a negation was present. In this case, the clause often has an iterative interpretation (cf. Rijksbaron 1994: 15), for example, Hdt. 2.118.17, 3.156.11, e.a.; Th. 5.7.5, 8.8.4. Furthermore, it is significant that the compound ἄναφανομαι, which is mostly used in the concrete meaning ‘become visible’, shows a clear preference for the passive future form (see Blass 1892: 271).

\textsuperscript{335} Other examples are E. Supp. 605, Hipp. 479, Phaeth. 275, Pl. Plt. 209b, Sph. 261b. Exceptions are: S. El. 1155, Ph. 1064.
To sum up the discussion so far, it is possible to schematize the main features of the distribution of φανόμαι and φανήσομαι as follows:

Table 3: Distribution of φανόμαι and φανήσομαι

<table>
<thead>
<tr>
<th></th>
<th>abs./ + part.</th>
<th>+ inf.</th>
</tr>
</thead>
<tbody>
<tr>
<td>iterative/generic</td>
<td>φανόμαι</td>
<td>φανήσομαι</td>
</tr>
<tr>
<td>non-iterative/generic</td>
<td>φανήσομαι</td>
<td>φανόμαι</td>
</tr>
</tbody>
</table>

In order to verify the conclusions stated above, I will now discuss, in more detail, the nine cases (I-X) of the middle and passive futures φανόμαι [4x] and φανήσομαι [5x] that occur in Plato’s Republic. The first instance is:

(I) νῦν δὲ γ', ἔφην, εἴπερ σοφία τε καὶ ἄρετη ἔστιν δικαιοσύνη, ἑρδίως οἶμαι φανήσεται καὶ ἰσχυρότερον ἀδικίας (...) (Pl. R. 351a)

But, now, if justice is indeed wisdom and virtue, it will easily be shown to be stronger than injustice (...).

The previous step in the argument is recapitulated in the ei-clause preceding the main clause. The future φανῆσεται ‘will be shown’ introduces the issue that is to be dealt with next, which results finally in the conclusion in 352b: ὅτι μὲν γὰρ καὶ σοφότεροι καὶ ἀμείνους καὶ δυνατότεροι πράττειν οἱ δίκαιοι φαίνονται (...) (‘Now that the just are found to be wiser and better and more capable of doing things (...)).

(II) Τούτων γὰρ δὴ, ὡς ἄριστε, φήσομεν, τῶν πολλῶν καλῶν μᾶν τι ἔστιν ὁ οὔκ αίσχρον φανήσεται; (...).

οὐκ, ἀλλ' ἀνάγκη, ἔφη, καὶ καλά πως αὐτά καὶ αἰσχρά φανήνοι (... (Pl. R. 479a)

SOCRATES: “My dear fellow”, we’ll say, "of all the many beautiful things, is there one that will not also be found to be ugly? (...)"

GLAUCON: There isn’t one, for it is necessary that they are found to be beautiful in a way and also ugly in a way (...).

Socrates presupposes the truth of the idea that all beautiful things are, in a way, also ugly. On closer inspection, the beautiful things will indeed be found to be ugly. Thus, φανήσεται is used here in the objective sense ‘be found’. Glauccon then confirms Socrates’ μῶν-question. Note that the aorist φανήνοι in Glauccon’s answer corresponds with the passive future in the question. It is worthy to note that the future tense is used here in a special sense. It does not refer to an event in the future. Rather, it appears to have a modal, or more specifically, an epistemic value (see Palmer 1986: 61-2). By using the future, the speaker asserts that the truth of the proposition at issue is the logical consequence of an hypothesis that has been accepted earlier in the discourse.336 The future

336 This special use of the future tense has noticed been observed by Magnien (1912, II: 168-169). For a recent discussion of this special future type, see Bakker (2002). This use of the future tense in Greek may be compared to the use of the auxiliary will in English as in That’ll be the postman. According to Langacker,
tense, used thus, occurs quite frequently in Plato’s dialogues (see also examples III, VII, and IX below).

(III) οὔτε γάρ ποιν σκοτωδεστερα μη ὄντος πρός το μᾶλλον μη εἶναι φανήσεται, οὔτε φανότερα ὄντος πρός το μᾶλλον εἶναι (Pl. R. 479d)
Surely, they will not be found to be more than what is or not be more than what is not, for apparently nothing is darker than what is, or clearer than what is.

It is appropriate, according to Socrates, to place the beautiful things (as well as other things) intermediate between being and not being (479c). To support this claim, he puts forward the argument that is cited here (οὔτε γάρ κτλ.;) as he considers it a self-evident truth. Thus, φανήσεται can here be interpreted as ‘be found’ (objective meaning). As in example (II), the future tense is used with an epistemic value.

(IV) Λαβοῦ τοίνυν, ἵν δ' ἐγώ, ὦλον αὐτοῦ ὀρθώς, καὶ σοι εὐδηλόν τε φανείται καὶ ὅχι ἄτοπα δόξει τὰ προειρημένα περὶ αὐτῶν (Pl. R. 491c)
If you correctly grasp the general point I’m after, it will be clear to you, and what I’ve said before won’t seem so strange.

Socrates suggests that if Adimantus grasps the point wholly and in the right fashion the issue will indeed become clear (not: seem clear) to him. Φανείται is used here in the objective meaning. The question now is why the ‘presentic’ middle future occurs as, after all, we are not dealing with an iterative or generic meaning. I would suggest that the explanation may be found in the immediate meaning of φανείται.337 The case will immediately become clear to Adimantus once he looks into it in the right manner. The first event is presented as a necessary condition for the realization of the second. The use of καί expresses the continuity between the two events (λαβοῦ AND φανείται ‘grasp and it will be clear straight away’). A comparable turn is found at S. OC 51:

(19) σήμαινε, κοῦκ ἀτιμος ἐκ γ' ἐμοῦ φανῇ (S. OC 51)
Tell me what it is, and no refusal shall come from me.

there is difference between this use of will and the use of must. Whereas must conveys a sense of epistemic immediacy, will suggests a certain epistemic distance: "(…) will implies that confirmation requires a non-negligible expansion of present knowledge (so that new information might alter the prediction), whereas must (…) indicates that confirmation is regarded as virtually inevitable" (Langacker 1991a: 280). This semantic distinction explains the following judgments: (a) They [will*must] quite possibly be there now; (b) Since you saw it with your own eyes, it [must*will] exist. This subtle distinction may also be detectable in our example (II). Socrates, by using the future, leaves open - or pretends to leave open - the possibility that his logical conclusion might be altered by new information or a new argument from Glaucon. In this way, he involves Glaucon in his argument. Glaucon, subsequently, confirms that Socrates’ conclusion is inevitable by using the word ἀνάγκη.

337 For a description of the immediate use of the present stem I refer to Ruijgh 1996: 535-95 (who uses the term inceptive), and Rijksbaron (20022: 17f.).
Again, the middle future appears to have an immediate value.\(^{338}\)

(V) καὶ ἀμα μία καὶ αὐτὴ τῶν βασάνων οὐκ ἐλαχίστη, τὶς ἐκαστὸς ἐν τοῖς γυμνασίοις φανεῖται (Pl. R. 537b)

At the same time, this is also not the least of the tests, how each one of them turns out to be in this physical training.

Socrates is speaking about the nature of one of the tests by means of which future philosophers can be selected. Φανεῖται can be interpreted as iterative-distributive (cf. ἐκαστὸς).

(VI) Ἄρ' οὖν, ἢν δ' ἔγω, ὡς ἂν φαίνηται πονηρότατος, καὶ ἀθλιώτατος φανήσεται:
καὶ ὡς ἂν πλείστον χρόνον καὶ μάλιστα τυραννεύσῃ, μάλιστα τε καὶ πλείστον χρόνον τοιούτος γεγονὼς τῇ ἀληθείᾳ; (Pl. R. 576c)

Well, then, I said, won't the man who will be clearly most vicious, also turn out to be most wretched? And won't the one who for the longest time has been most of all a tyrant, turn out to be most wretched for the longest time?

With the predicative construction ἀθλιώτατος φανήσεται a participle can be understood - compare γεγονὼς in the next sentence. As stated before, the objective meaning favours the use of the 'aoristic' passive future form. The present stem of φαίνηται in the relative clause can be interpreted as expressing a state ('will be clearly'), or, alternatively, as iterative ('time and again will be found to be'). The 'aoristic' value of φανήσεται expresses that, while the state of being vicious lasts (present stem φαίνηται), it will, at a certain point in time, become clear ('aoristic' φανήσεται) that he is also wretched.

(VII) (...) ἀλλ' ἄει τὴν ἐν τῷ σώματι ἀρμονίαν τῆς ἐν τῇ ψυχῇ ἕνεκα συμφωνίας ἀρμοττόμενος φανείται (Pl. R. 591d)

Rather he will always be found to cultivate the harmony of his body for the sake of the consonance in his soul.

Φανείται can be interpreted generically (cf. ἄει). Here, the issue is the appropriate way of living of ὁ νοῦν ἔχων - a generic subject.

(VIII/IX) Ἔκ Λι', ὡς ὡς, οὐκ ἄρα πάντεινον φανεῖται ἢ ἀδικία, εἰ θανάσιμον ἐσται τῷ λαμβάνοντι: ἀπαλλαγῇ γὰρ ἂν εἰπ' κακῶν· ἀλλ' ἄλλα μᾶλλον οἶμαι αὐτὴν φανείσεθαι πάν τούναντιν τοὺς ἄλλους ἀποκεινύσαν (...) (Pl. R. 610d)

By god, if injustice were actually fatal to those who contracted it, it wouldn't seem so terrible, for it would be an escape from their troubles. But I rather think that it will be found to be quite the opposite, something that kills other people (...).

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\(^{338}\) Another example of the immediate use (cf. συνίκα) of the middle future φανείται is εἰτε καταλείψομεν τινας ἡμῶν αὐτῶν φύλακας ἐπὶ τοῖς ἔρ' ἡμῖν γεγομένοις, συνίκα οὐδεμιὰν ἵσχυν ἔχοντες ἀναφανομέθεα (Xen. Cyr. 4.5.15). ('and if we leave some of our own men to guard what falls into our possession, it will immediately be found out that we have no strength'). Although the verb has the objective meaning 'be found' (cf. the participle) the middle future form is used with an immediate value.
In this passage, the semantic contrast between φανοῦμαι and φανήσομαι becomes especially clear. Socrates postulates, for the sake of the argument, that injustice is as deadly to unjust people as a disease (610c). Glaucon’s exclamation μᾶ Δι’ ... οὖκ ἄρα πάντεινον φανεῖται ἤ ἄδικια is the surprising (ἄρα) conclusion that would have to be drawn, if indeed it were the case that injustice is fatal to those who contract it. Note that the future tense in the protasis (鞅ται) appears to convey Glaucon’s scepticism regarding the truth of the condition. In fact, according to Glaucon, the opposite is true (φανήσεσθαι πῶν τούναντίον). The subjective view (‘injustice seems not so terrible’) and the objective view (‘the opposite, however, is true’) are also contrasted by the use of ἀλλά.

I would like to discuss one final issue here. As was set forth in section 4.0, Wackernagel maintained that the aspectual distinction existed during a particular stage in the history of Greek. This stage lasted from Homer to the 5th century. We have seen above that, in Homer, the semantically neutral middle future could express both aspects. In this section, it was argued that, in Sophocles, Euripides and Plato, φανοῦμαι had an imperfective value, whereas φανήσομαι had a perfective (‘aoristic’) value. As the aspectual distinction can also be found in Plato, Wackernagel’s boundary cannot be entirely correct. The question is now whether or not we can determine more precisely in which classical authors the aspectual distinction can be found. A glance at the frequency with which the two future forms occur in a larger corpus might be enlightening.

Table 4: Φανοῦμαι vs. φανήσομαι: frequency of occurrence

<table>
<thead>
<tr>
<th>Author</th>
<th>φανοῦμαι</th>
<th>φανήσομαι</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeschylus</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Sophocles</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Euripides</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Herodotus</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Thucydides</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Lysias</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Aristophanes</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Isocrates</td>
<td>3</td>
<td>43</td>
</tr>
<tr>
<td>Xenophon</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Plato</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Aeschines</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Demosthenes</td>
<td>17</td>
<td>62</td>
</tr>
</tbody>
</table>

The authors are set in order of their (assumed) date of birth. It can be observed that no significant shift takes place during the 5th and 4th centuries. Rather, there appears to be a

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339 Note the epistemic use of the future φανεῖται.

340 By the epistemic use of the future φανήσεσθαι, the statement is presented as a reasonable conclusion.

341 The data are derived from the TLG on CD-ROM, and from Magnien (1912, I: 281, 342). Included are the compounds of φανοῦμαι and φανήσομαι. Not included are the instances of φανοῦμαι (esp. in the compound ἀπο-) with an indirect reflexive meaning.
division according to genre. In the orators Lysias, Isocrates, Aeschines and Demosthenes the use of the passive form predominates overwhelmingly, whereas in the remaining authors the middle form is preferred. Only Herodotus shows a different picture. This may, however, not be significant due to the low numbers. It may be concluded from these figures that the orators selected the passive form more automatically than the other authors. This would mean that, in the orators, the semantic distinction between the two forms began to fade away. It appears that, in this respect, the language of the orators was less conservative than the language of the other authors.

In conclusion, in this section I have attempted to revive Blass’ hypothesis by arguing that the middle future form φανοίματι differs from the passive future form φανήσομαι with regard to aspect. Φανοίματι, like the present stem, has an imperfective meaning, whereas φανήσομαι, like the aorist stem, has a perfective meaning. In practice, φανοίματι has the stative meaning ‘seem’ (subjective view), and φανήσομαι the telic meaning ‘turn out, be found, become clear’ (objective view). Φανοίματι may also express the iterative or generic meaning ‘be found repeatedly/generally found to be’. Finally, we saw that this semantic contrast may have been fading away in the language of the orators.

4.2 Other Verbs with an Aspectual Distinction

The question now remains whether the distinction between φανοίματι and φανήσομαι can also be found with other verbs. There is a large number of verbs that show a

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342 I have found the same general tendency with the other verbs that have an opposition between middle and passive future that is similar to φανοίματι vs. φανήσομαι (e.g. λείψειμα - λειψήσομαι). Again, the orators show a general preference for the passive future: Lys. 24x [passive]: 4x [middle], Isocr. 57x [p]: 9x [m], Aeschin. 21x [p]: 4x [m], Dem. 92x [p]: 47x [m]. Note that Demosthenes – as in the case of φανοίματι: φανήσομαι – uses the middle forms relatively often. The ‘non-orators’, conversely, have a predilection for the middle future form: A. 11x [m]: 4x [p], S. 29x [m]: 10 [p], E. 37x [m]: 24x [p], Hdt. 39x [m]: 11x [p], Th. 30x [m]: 23x [p], Ar. 20x [m]: 15x [p], Xen. 59x [m]: 16x [p], Pl. 101x [m]: 82x [p].

343 Only Demosthenes has a considerable number of middle future forms (17x). Possibly, he still knew the semantic distinction. An interesting passage can be found at Dem. 20.80-1: (...) πανθ’ ὑπὲρ ὑμῶν φανήσεται πράξας Χαβρίας (...) ἀξίων (...) σκοτείνει, ὅπως μὴ φανοίματα φανολότεροι Χιόν περὶ τοὺς εὐεργέτας γεγενημένου. (...) εἰ (...) τῶν (...) τι δεδεόμενον ἀφηρημένον φανήσεσθε. (‘It will be seen that Chabrias did everything on your behalf (...). It is worth while to see that we do not prove to be less generous than the Chians with regard to our benefactors. If (...) we turn out to rob him of part of the reward (...)’.) Even Blass (1892: 269) admits, be it reluctantly, that Demosthenes employs the middle and the passive form without semantic distinction, for the sake of variation. However, I would maintain that there is a semantic difference since φανοίματα is used in a generic sense, whereas the two passive futures refer to single events. Furthermore, in this speech Demosthenes uses comparable phrases twice: ἀφηρημένοι φανοίματα (20.46), and ἀφηρημένοι φανήσεθε (20.120). Contrary to ἀφηρημένοι φανήσεθε in the passage above, these two middle cases can be interpreted as iterative (cf. the plural παῦδες at 20.46), and as generic (20.120).

344 Note that in the Koine, which stems from vernacular Attic, the use of the middle forms almost completely disappeared. Thus, in Polybius and the papyri, there are no more verbs that have both the middle form and the passive form with passive meaning (see Mayer 1926-34, II: 212, Blass & Debrunner 1979: 62). By contrast, in the highly conservative epic language only middle futures occur. Thus, Hesiod, the Homeric hymns, Apollonius Rhodius, Theocritus, Babrius, Oppian, Quintus Smyrnaeus, Callistus, Tryphiodorus, and Nonnus only use the middle future forms.
morphological contrast in the future stem that is similar to the contrast between φανούμαι and φανήσομαι.\textsuperscript{345} An example is κινέω, which has the passive aorist form ἐκινήθην ‘I moved (intr.), I was moved (pass.)’ but two variant future forms, κινήσομαι ‘I will move, I will be moved’ and κινηθήσομαι ‘id.’. Again, at first glance, there seems to be no semantic distinction between the middle and the passive future forms. However, the two variant future forms may differ in aspect. Consider the following examples:

(20) ΣΩ. κινεῖται καὶ ἔρι, ὡς φατε, τὰ πάντα; ἥ γάρ;
ΘΕΩ. Ναί.
ΣΩ. ὧδεν ἀμφοτέρας ὡς διειλόμεθα κινήσεις, φερόμενα τε καὶ ἄλλοιούμενα;
ΘΕΩ. Πώς δ’ οὔ; εἶπερ γε δὴ τελέως κινήσεται (Pl. Tht. 182c)
SOCRATES: According to you, all things move and flow; isn’t that so?
THEODORUS: Yes.
SOCRATES: And they have both the motions that we distinguished, that is to say, they both move and alter?
THEODORUS: That must be so, if they are to be wholly and completely in motion.

(21) ΞΕ. Κίνησις τε στήσεται καὶ στάσις αὕτη κινηθήσεται· περί γάρ ἀμφότερα θάτερον ὑπεροροντούν γίγνομεν αὐτοίν ἀναγκαίας μεταβάλλειν αὐτὸν θάτερον ἐπὶ τούναντίον τῆς αὐτοῦ φύσεως, ἢτε μετασχῆν τοῦ ἑναντίου (Pl. Sph. 255a)
VISITOR: Then change would rest and rest would change. In both cases, if either change or rest comes to be either the same or different, then it will force the other to change to the contrary of its own nature, since it will share in its contrary.

In (20), the middle future κινήσεται is imperfective. All things are in constant motion (compare present stem κινεῖται ... τὰ πάντα). In (21), however, the transition from rest to motion is meant. This can be inferred from the coordination of κινηθήσεται with its opposite στήσεται ‘will stand still, halt’. This means that κινηθήσεται has an ingressive (i.e. ‘aoristic’) value. It can be concluded that the aspectual contrast of the type φανούμαι vs. φανήσομαι may also be found with other verbs.\textsuperscript{346}

4.3 Middle is Middle and Passive is Passive

Recall that, according to Stahl, the middle future form has a middle meaning, and the passive future form has a passive meaning. In other words, he advocated a diathetical view. Does this consequently lead us to the conclusion that Stahl was simply wrong? The situation appears to be more complicated than that. With many verbs, the middle future does, indeed, have a middle meaning, whereas the passive future has a passive meaning. The opposition is therefore comparable to the opposition between the sigmatic middle aorist and the passive aorist form. This situation is presented in the following schema:

\textsuperscript{345} The verbs that display this type of contrast are enumerated and discussed by Blass (1892: 273ff.).

\textsuperscript{346} Compare also examples (3), (5), (6), (7), (9), given in section 4.0.
Here we can observe a neat pattern. The middle future forms correspond with sigmatic middle aorist forms, and the passive future forms correspond with passive aorist forms.348 In other words, this system of diathetical distinctions leaves no room for an aspectual distinction. The importance of diathetical distinctions is even clear in a form like φανούμαι since it can also be used as an indirect reflexive (albeit only in the compound ἄπο-). In sum, both aspectual and diathetical distinctions are relevant to the middle-passive future. Blass and Stahl, we have to conclude, were both correct in their assertions.349 The contrast between the middle and the passive future is to be explained differently for each individual verb. The contrast may involve an aspectual distinction, as in the case of κινήσωμαι vs. κινήθησομαι, or it may involve a diathetical distinction, as in -σκευάζομαι vs. -σκευασθήσομαι.350 The contrast between φανούμαι and φανήσομαι has elements

347 This verb only occurs in the compounds κατασκευάζω and παρασκευάζω.

348 In some cases, the opposition between middle and passive future forms does not correspond with that in the aorist stem completely. For instance, the passive aorist ἐπισέθην 'I was persuaded' corresponds, as we would expect, with the passive future form πεισθήσομαι 'I will be persuaded'. However, the form ἐπισέθην in the meaning 'I obeyed, believed' corresponds with the middle future form πείσομαι 'I will obey, believe'. This pattern probably reflects an earlier stage of the language, in which ἐπισέθην and πεισθήσομαι were only used with a passive meaning, whereas ἐπισέθην and πεισθήσομαι had an intransitive meaning. This older pattern was disturbed by the replacement of the thematic aorist by the passive aorist form (see section 3.2.4). A similar mismatch between future and aorist is exhibited by the pair βουλήσομαι vs. βουλήθην (βουλήθησομαι appears late).

349 Recall that Stahl mentioned ἀπαλλάττομαι as an example of a diathetical contrast. According to Stahl, ἀπαλλάττεται had a volitional, middle meaning 'loskommen, sich einer Sache erledigen', whereas ἀπαλλαγήσομαι had a non-volitional, passive-like meaning 'befrei t werden, etwas los werden'. Stahl's distinction is probably correct. However, it is remarkable that he did not take into consideration the more frequent meaning 'depart' since it appears to confirm Stahl's claim. The middle ἀπαλλάξεται is used 11 times with the volitional meaning 'depart' (Hdt. 5.67.2, 7.222, E. Ion 524, Hel. 437, Th. 8.83.3, Pl. R. 496e; Xen. An. 5.1.15, 7.1.4, 7.1.6, 7.6.2, Dem. 24.85), whereas passive future ἀπαλλαγήσομαι-χθήσομαι occurs only 2 times with this meaning (Ar. Av. 940, Pl. Lg. 642e). The metaphorical sense 'depart from life' is not taken into account here since it is non-volitional (E. Ion 847, E. Hipp. 356, Med. 878).

350 Derived verbs in -άσω, -ίσω, -ύνω almost never have middle future forms with passive or intransitive meaning. The reason for this rule may be that the so-called 'Attic futures' are morphologically less transparent. There are only three exceptions (out of several dozens of instances): ἄνασκολοπσώμαι (Hdt. 3.132.2, 4.43.2), and ἄνευδομαι (S. OT 1500). Of the verbs in -άνω, however, both -ανούμαι (5 tokens) and -ανήσομαι (9 tokens) occur. In some cases, word length might be a factor that determines the
of both since φανοῦμαι can express the indirect reflexive meaning - which is never expressed by φανήσομαι -, and it can have an imperfective intransitive meaning. These two meanings differ from the perfective intransitive φανήσομαι with regard to \textit{diathesis}, and with regard to \textit{aspect}, respectively.
CHAPTER 5

5 ‘Synonymous’ Active and Middle Verbs

5.0 Introduction

One of the problems that might puzzle students of the Greek middle voice is the co-existence of active and middle verbs that are (near-)synonyms. Well-known examples are:

Of different verbal stems:

εθέλω - βούλομαι
χαίρω - ήδομαι
εύμε - έρχομαι
ικάνον, ικό - ικνέομαι
άκολουθέω - έπομαι
πηδάω - άλλομαι
σκοπέω - σκέπτομαι
θαυμάζω - θεάμαι

Of the same verbal stem:

ὁμώ (intr.) - ὤμοιομαι
πειράω - πειράμαι
πολιτεύω - πολιτεύμαι

The first, unavoidable point that must be made is that absolute synonymy is a very rare phenomenon - if it exists at all (see e.g. Lyons 1996: 67-8, Cruse 2000: 156). In languages, it runs against the principle of economy to have two different expressions for only one meaning. The force of economy shows a strong tendency to maintain (or to achieve) a division of semantic (or pragmatic) labour between two ‘synonymous’ expressions, at least to some extent. This tendency is sometimes referred to as synonymophobia.

The question now is how to deal with the ‘synonymous’ active - middle pairs above. The most obvious explanation for the existence of these pairs would be to state simply that the active verb does not involve subject-affectedness, while the middle verb does. This explanation is a priori possible, but not very likely. If the difference between the active and the middle member of these pairs would be a question of absence vs. presence of subject-affectedness, it would have been hard to conceive of them as (near-)synonyms. In other words, the semantic distinction between the ‘synonymous’ pairs is probably more subtle than that. Take, for instance, the pair βούλομαι and εθέλω (to which

351 Létoublon (1985: 71) observes a difference in inherent aspect between ἰέναι and ἔρχεσθαι, especially in the non-indicative moods. The former is unmarked as to inherent aspect, while the latter often has a durative or iterative value. How this distinction relates to their different voices I cannot explain.

352 Notice that ἄκολουθέω ‘follow’ is a denominative verb (from ἄκολουθος ‘follower, attendant’), cf. also σκοπέω from σκοπός ‘watcher’. The active voice of these verbs may reflect their original stative meaning, which may be rendered by ‘be a follower’ and ‘be a watcher’ respectively.
I will return later). One cannot simply state: ἔθελω is active - therefore it lacks subject-affectedness, since it is clear that ἔθελω, like βοῦλομαι, implies an element of mental involvement on the part of the subject. The conclusion is that we have to consider other types of explanations for our 'synonymous' pairs.

The question I would like to tackle in this section is whether or not the active and middle endings of these pairs contribute to the over-all verb meaning. In principle, one can think of three possible scenarios that could apply to each of these 'synonymous' pairs:

(i) Neither verb of the pair involves subject-affectedness, i.e. the middle ending of the middle member is lexicalized and meaningless, possibly a relic of an older meaning of the verb.

In the section on the status of the media tantum (1.3.1), I have argued against this type of explanation. One of the central objectives of the present study is to aim for a unified account of all types of middle verbs: oppositional middles as well as media tantum. As a matter of principle, in my view, the burden of proof lies on those who would claim that these two types of middles should be treated separately. In the section on media tantum, I have also shown that most media tantum belong to a restricted number of semantic classes, and that in all these classes subject-affectedness is an element of their meaning. Now if we look at the verbs enumerated above, we can observe that they are either verbs of motion, or verbs of mental processes. Both semantic verb-classes involve subject-affectedness. The subject undergoes a change of location, or a change of mental state, respectively. Although one cannot rule out the possibility that, as a result of a radical semantic change, the original middle meaning of a particular middle verb has disappeared without a trace, one should consider such an explanation only as a last resort. In many cases it is possible to discern a subtle semantic distinction between active and middle 'synonyms', involving a difference in degree of subject-affectedness. This bring us to scenario (ii):

(ii) Both 'synonymous' verbs inherently involve subject-affectedness. However, the aspect of subject-affectedness is emphasized by means of the middle inflection.

To illustrate this scenario, consider the pairs puppy vs. puppy dog, and oak vs. oak tree (from Langacker 1987: 294-7). The lexical items puppy and puppy dog do not differ in truth-conditional content. The two expressions are semantically very similar since the meaning component 'dog' is already inherent in the lexical item puppy. In the expression puppy dog, the meaning of dog is included in the lexical meaning of puppy. The same holds for oak vs. oak tree. Nevertheless, although the 'objective', truth-conditional content of the two expressions may be identical, there is a conceptual difference. By using an analytic expression like puppy dog or oak tree the semantic facets dog and tree are

333 Πολιτεύομαι is the odd one out here. I will return to this interesting verb below.
highlighted, i.e. the status of the designated entities as members of the category dog and tree.  

A similar relation may hold for ‘synonymous’ pairs of active and middle verbs: both expressions imply subject-affectedness since this is an inherent feature of the lexical semantics. However, the semantic facet of subject-affectedness is highlighted by the middle ending. Consequently, there is a subtle difference between the active verb - of which subject-affectedness is an implicit facet of the lexical meaning - and the middle verb - in which subject-affectedness is made more salient by means of the middle ending. An example of this type of subtle contrast is the active-middle pair ἵ δειν - ἵ δεσθαι, of which the middle variant conveys the notion that a lasting mental impression is left on the subject (see section 2.1.8). In other words, the middle inflection emphasizes the subject-affectedness inherent in the lexical meaning. As I will argue below, the pair βούλομαι - ἔθελω can also be accounted for by means of this scenario. While both verbs involve a degree of mental affectedness in their lexical meaning, this element is emphasized in the case of βούλομαι by means of the middle ending of the verb. 

Finally, we come to scenario (iii):

(iii) Both verbs of the pair involve subject-affectedness. The affectedness of the subject of the active verbs is inherent in the lexical meaning of the verb. There is no demonstrable semantic difference between the active and the middle verb.

This is a scenario I deem very plausible since it is in harmony with the claim that the active voice is the unmarked member of the opposition, neutral with respect to subject-affectedness. It is possible that, historically, there had been a semantic distinction (as in scenario (ii)) which had disappeared in the course of time. In other words, for this type of active-middle pairs, semantic factors do not determine the distribution of the active and the middle verb. We have a strong indication that semantic factors are irrelevant if we can point to other factors that adequately explain the distribution of the ‘synonymous’ active and middle verb. Other important factors might be diachronical factors, genre-

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354 In the verbal domain, examples would be: English rise up (the adverb emphasizes the upward movement already inherent in the lexical item rise), and the auxiliary do as in You DID see it! and Did you see it?. The auxiliary can be analyzed as designating a maximally schematic state of affairs (cf. Langacker 1991: 205). Therefore, using the auxiliary do emphasizes the abstract element of the actual occurrence of the state of affairs - which is also inherent in the lexical semantics of every verbal predicate.

355 Within the Greek verbal system, a comparable phenomenon is found in the perfects that are formed from inherently stative verbs, the so-called intensive perfects (see e.g. Rijksbaron 1994: 36, Ruijgh 1996: 670). E.g., the perfect form στηρίζεται 'maintain complete silence' (from stative στηρίζω 'be silent') emphasizes the stative aspect that is already inherent in the lexical meaning of the verb. Maldonado (1999) describes a comparable phenomenon in relation to Spanish se. E.g., (i) La maestra captó la voluntad de los alumnos ('The teacher captured the student's good will') vs. Es un maestro que se capta la voluntad de los alumnos ('He is a teacher that captures [for himself] the student's good will'). The lexical semantics of capturar 'capture' inherently implies that the event is beneficial to the subject. The clitic se is used to highlight the benefit implied by the verb (see Maldonado 1999: 167-8).

356 It can never be excluded that a speaker of Ancient Greek still felt a subtle semantic nuance (consciously or not) which cannot be detected anymore for lack of native speakers.
factors, and stylistic factors. There is a number of phenomena that might be explained in a this way.

The first case of active-middle pairs without detectable semantic distinction concerns the following verbs (see also Kühner-Gerth, I: 102; Chantraine 1927; Schwyzer-Debrunner, II: 232-3):

ánkoú (prose/poetry) - ánkoúmovai (poetry) 'hear'
ánúmá (poetry) - ánúmovai (poetry) 'speak'
βrémw (poetry) - βrémovai (poetry) 'roar'
ðakrýw (prose/poetry) - ðakrýmovai (poetry) 'cry'
ðákkw (prose/poetry) - ðákkmovai (poetry) 'pursue'
ðapérmw (poetry) - ðapérmovai (prose/poetry) 'give, present'
ìmérov (esp. poetry) - ìmérovai (poetry/lon. prose) 'desire'
klaía (prose/poetry) - klaímovai (poetry) 'lament'
lámpw (prose/poetry) - lámpmovai (poetry) 'shine'
mélé (prose/poetry) - mélemovai (poetry) 'celebrate with song and dance'
níkhw (poetry) - níkhmovai (poetry) 'swim'
ók (prose/poetry) - ókmovai (poetry) 'think'
pélw (poetry) - pélmovai (poetry) 'become, be'
spérmw (prose/poetry) - spérmovai (poetry) 'haste'
speudów (prose/poetry) - speudmovai (poetry) 'speed'
φhmov (prose/poetry) - φhmovai (esp. poetry) 'say'

Of these verbs, either one of the variants is restricted to poetry (mostly the middle variant, e.g. ánkou - ánkoúmovai), or both variants occur only in poetry (e.g. ánúmá - ánúmovai). In sum, oppositions between the active and the middle variant of these verbs is only found in poetry. An example may be illustrative:

(1) a. óútâp ég ò ge

But by swimming I made my way through this great gulf of the sea here (...).

b. ἀλλα, ἀναχασσóμενος νήχων πάλιν (η 276)

(...) but I retreated, and swam back (...).

Within a short passage the poet uses the verb twice; once in the middle voice, once in the active. There are no indications of a semantic difference.

With Schwyzer-Debrunner (II: 232), I assume that the coexistence of the active and the middle verbs in poetry is a matter of metrical convenience, and that the variants are used indistinctly.358 However, this assumption does not imply that, in these verbs, the

357 Neuberger-Donath (1980) argues, against Schwyzer, that there is a semantic distinction between πέλω and πέλομαι. This distinction, according to Neuberger-Donath, is in harmony with the general definition of the middle: πέλω expresses a static event and is 'extroverted' (related to ειμι), whereas πέλομαι is dynamic and 'introverted' (related to γίνομαι).

358 A different position is often taken by Boeder (1961-2). Wrt regard to many of the active-middle pairs at issue, he claims that there is a semantic distinction. According to Boeder (p. 78), the middle διαρέσωμαι involves a degree of generosity on the part of the subject; as to óío - óiómovai, the middle conveys a (more subjective) suspicion, whereas the active expresses "die Feststellung einer Meinung, fast eine Behauptung" (p. 130); ìmérovai, against ìmérov, expresses the desire as a reaction to a stimulus (p. 131). Cf. further διώκω/-ομαι (p. 135-6); πέλω/-ομαι (p. 163-8).
use of voice is completely arbitrary from a semantic point of view. On closer inspection of the list above, it can be observed that the verbs almost all belong to a restricted number of semantic classes: verbs of motion, verbs of perception, (emotional) speech act verbs, and verbs of mental (emotional) processes. In other words, all verbs inherently involve subject-affectedness.\textsuperscript{359} This inherent subject-affectedness motivates the presence of the (semantically redundant, cf. Schwyzer-Debrunner’s "Doppelcharakterisierung") middle inflection. The active inflection can be used in these verbs since it is, as I have argued, unspecified as to the feature of subject-affectedness.

The second case concerns verbs that have different voices in different aspect stems, e.g.:

**Middle present - active aorist**

άλλοσκομαι - ἐξαλων 'be caught'

dέρκομαι - ἔδρακον 'look'

δύομαι - ἔδων 'enter, plunge into'

ἵστομαι - ἵστην 'stand still, stand up'

πέρδομαι - ἐπαρδὸν 'break wind'

πτάνυμαι - ἐπταρνον 'sneeze'

τρέφομαι - ἐτράφον (Hom.) 'grow up'

φόμαι - ἕφον 'grow; become'.\textsuperscript{360}

**Active present - passive aorist**

χαίρω - ἔχάρην 'enjoy'

The explanation of this remarkable active - middle pattern probably lies in the pre-history of Greek.\textsuperscript{361} It is clear that the middle forms have a middle meaning. They all expres

\textsuperscript{359} Λάμμαται-ομαι can be semantically compared to φαίνομαι 'become visible', both denoting a spontaneous internal affection.

\textsuperscript{360} Other possible examples are: δίεμι - δίον (X 251); ἑρεικόμενος (N 441) - ἡμικε (P 595); ἑρείπωμαι - ἡμίκιον; ἑρεπούμαι - ἡμίκιον; λαέσωμαι [Hom.] - ἐλαβὼν; μυκάωμαι (κ 413) - ἔμυκον; κίνωμαι - ἐκον [Hom.]. Note, further, that most of these verbs have an active perfectum, e.g. ἐάλωκα, δέδορκα, δέδυκα, ἔστηκα, πέπορδα, τέτροφα, and πέρφυκα.

\textsuperscript{361} Though Gonda (1979: 90) notes that in Sanskrit the active voice predominates in the root aorist, there is no clear evidence that this pattern was inherited from PIE - unless one counts as evidence the Sanskrit middle pārdate 'breaks wind' (corresponding with πέρδεται) and the uncertain Late Avestan active aorist form pārdāro (V. 3.32) 'they broke wind' (corresponding with ἐπαρδόν). In the remaining cases the present middle appears to be a Greek innovation. Thus, Ἴστομαι and πτάνυμαι correspond respectively with the active presents Skt. tisthati 'stand', Lat. sistō 'stand', and Lat. sternuō 'sneeze'. As to δέρκομαι and φόμαι, these verbs probably did not have a present form in PIE, given that in Sanskrit only the aorist formations seem to be old: dārśam 'I see' (cf. (ē-)drakon) and abhūt 'has become' (cf. ebp). As an explanation of the occurrence of an active aorist (and perfect) vs. a middle present, I tentatively suggest the following process: (1) In opposition to the intransitive active aorists (e.g. ἵστην, ἔφον), sigmatiic aorists with causative meaning were created (e.g. ἔστησα, ἔβρεψα); (2) This led to the creation of corresponding causative active present formations (ἵστημι, τρέφω), or, alternatively, the already existing active formation acquired a causative meaning (e.g. ἵστημι *'stand still' > 'make stand') (3) Then, intransitive middle presents (ἵστομαι, τρέφομαι) were formed. This analogical process is not implausible, since an almost identical analogical process led to the formation of the sigmatic aorist ἠέσα 'I made sit down' (opposition to the intransitive middle aorist ἠξιζων 'I sat down'), which, in turn, brought about that active present ἐξω acquired a causative meaning 'make sit down', in addition to its original intransitive meaning 'sit down' (cf. Lat. -siō 'sit
mental or physical affectedness. The active aorists (or active present, in the case of χαίρω), however, do not seem to express a lower degree of affectedness. The subject-affectedness, therefore, must be an inherent property of the lexical meaning of the verb root. The unmarked active voice can be used since the subject-affectedness is already present in the context (in this case the verb root). This phenomenon may be compared to the use of the active ἀποθνῄσκω (ὄπο) 'be killed by' as the suppletive passive of κτείνω 'kill' (see section 1.1.4). The subject-affectedness is an inherent property of the lexical meaning of ἀποθνῄσκω.

In the two cases I have discussed above, there was no indication that any semantic distinction existed between active and middle verbs. This phenomenon was explained by means of the neutral value of the active voice, and the inherent lexical middle semantics of the verbs concerned. In the first case mentioned above (type ἀκούω - ἀκούομαι), the distribution between active and middle form was explained by genre-factors (the need of metrical alternatives in poetry). The second case of active-middle pairs (ἀλίσκομαι - ἐάλων) was explained by the pre-history of the Greek language.

down'). Now, as a result of the analogical process, we find oppositions such as ἔσταμαι/τρέφομαι vs. ἔστην/ἐτραφον. These pairs may have constituted a precedent for the formation of other verbs, e.g., ἐτραφον : τρέφομαι = ἐδρακον : => δέρκομαι (also influenced by σκέπτομαι?). The active χαίρω is probably old, witness Skt. हार्याम. The form ἔχαρην was probably created when the η-aorist formation did not yet strictly belong to the verbal conjugational system, and could also be derived from verb roots with active presents, cf. also ῥέω 'stream', aor. ἔρρην.

362 We cannot exclude (nor prove) that a speaker of Ancient Greek experienced a subtle semantic nuance between the middle voice of δέρκομαι and the active voice of ἐδρακον. However, then the question arises as to why the present stem would involve a affectedness, whereas the aorist stem would not.
5.1 Some Active and Middle ‘Synonyms’

In the previous section three possible scenarios that might hold for active - middle ‘synonymous’ pairs were discussed. In this section, a number of case-studies will be presented. Of five of the active - middle pairs, I will try to analyze the factors that explain their distribution. These may be semantic factors, but also diachronical or stylistic factors. Three of the pairs concerned are built on the same lexical stem: ὀρμᾶω - ὀρμάωμαι (5.1.1), πειράω - πειράομαι (5.1.2), πολιτεύω - πολιτεύομαι (5.1.3).363 The two remaining pairs are from different stems: ἄλλομαι - πηδάω (5.1.4) and βούλομαι - ἐθέλω (5.1.5). After a discussion of these pairs I will devote some attention to the domain of the verbs of motion (section 5.2). It will be argued that it is possible to discern a tendency behind the distribution of active and middle verbs of motion.

5.1.1 ὀρμᾶω vs. ὀρμάωμαι

The first near-synonymous pair to be discussed, consisting of an active intransitive and a middle intransitive verb, is ὀρμᾶω ‘rush, set off (intr.)’ and ὀρμάωμαι ‘set off’.364 In Homer, the two verbs seem to be used without a clear distinction in meaning. Compare the two following examples:

(2) αὐτὸς δ’ ὡς τ’ ἵππος ὀκύπτερος ὄρτο πέτεσθαι, ὡς ρά τ’ ἄποι αἰγίλιπος πέτρης περιμῆκες ἄρθελς ὀρμήσῃ πεδίοις διώκειν ὅρνεον ἄλλο (N 64)
And he himself, just as a hawk, swift of flight, rises to fly, and poising himself aloft above a high sheer rock, darts over the plain to chase some other bird.

(3) λαιψηρά δὲ γούνατ’ ἐνόμα
φευγέμεναι· τοι δ’ αἴσια διώκειν ὀρμήθησαν (K 359)
(... and he [Diomedes] plied his limbs swiftly in flight, and they speedily set out in pursuit.

‘Ὀρμήσῃ is the sigmatic aorist of ὀρμᾶω; ὀρμήθησαν is the aorist of ὀρμάωμαι. In both examples, the subjects set off in pursuit (διώκειν). The two forms appear to be used

363 Other examples are βουλέω - βουλέωμαι and προσβείω - προσβείομαι. The distribution of the active and middle forms of these verbs is not entirely clear. The active προσβείω is used in two ways (i) ‘be eldest, be first, be ambassador’ (static), and (ii) ‘place as eldest/first, pay special honour to’ (transitive causative). The active voice can be explained by the static and causative meanings, respectively. The middle is mostly used in the meaning ‘send ambassadors’. Here, the middle voice can be explained as an indirect reflexive since a leader usually sends ambassadors for his own benefit. However, the problem is that προσβείομαι is also used in the meaning ‘serve as an ambassador’. Here, the middle voice may be interpreted as a passive ‘be sent as an ambassador’, which implies that one serves as an ambassador. For βουλέω/-ομαι see section 2.1.9.

364 Corresponding to the middle intransitive ὀρμάωμαι, there is a causative transitive active ὀρμᾶω ‘urge, dispatch’. Judged on the basis of its frequency, the active transitive verb is clearly of secondary importance. E.g., in Herodotus the active transitive occurs only twice, whereas the intransitive middle occurs 67 times.
without semantic distinction. In the next pair of examples, the subjects rush up to an enemy:

(4) ἐστάσασιν, ὑπότε πύργος Ἀχαιῶν ἄλλος ἐκείθων
Τρώων ὄρμησει καὶ ἄρξειαν πολέμιο (Δ 335)
(...) and they waited until some other detachment of the Achaeans should advance to set on the Trojans, and begin the battle.

(5) Πηνέλεω δὲ μάλιστα δαίφρονι θυμὸν ὄρινεν·
饨θη δ’ Ἀκάμαντος (Ξ 488)
[Acamas] (...) and beyond all did he stir the heart of battle-minded Peneleos. He rushed on Acamas.

It appears that, in Homer, both the intransitive active ὄρμαο (occurs 5x365) and the intransitive middle ὄρμαομαι (occurs 55x, including aorists in -Θη-) designate setting off at a high speed. The distribution between intransitive ὄρμαο and ὄρμαομαι is not easily explained by metrical factors. Note, for instance, that in example (2) above the passive aorist ὄρμηθη would also have been possible. Furthermore, metrically equivalent forms such as -ὁρμήσας/ὁρμηθείς and -ὁρμήσασα/-ὁρμηθείσα occur.

In Classical Greek, however, it appears that there is a division of labour between the two verbs. Intransitive active ὄρμαο emphasizes the speed or force of the motion (i.e. motion of high intensity), whereas ὄρμαομαι focusses on the transition into motion, i.e. ‘set oneself in motion, depart’, being neutral as to the speed/force of the motion. This semantic distinction seems also to have been discerned by Powell (1938). He renders intransitive ὄρμαο with ‘set off, rush’, and “passive” (= middle intransitive) ὄρμαομαι with ‘set off’. In Herodotus, intransitive ὄρμαο is only used in contexts of battle, either for an army rushing up to the enemy (adequately translated as ‘storm, assail’), or for an army taking to flight. In both cases, the element of speed and/or force is obviously of the utmost importance. In some cases, however, intransitive ὄρμαο has the special meaning of ‘march against’. Although here the element of speed is backgrounded, the idea of force is still prominent.

The 7 occurrences of intransitive ὄρμαο in Herodotus may illustrate the point made:

(6) καὶ τοὺς Φοίνικας διακελευσαμένους ὄρμησα ἐπ’ αὐτάς (Hdt. 1.1.4)
(...) the Phoenicians heartened each other to the deed, and rushed to them.

The Phoenicians made for the Greek women, who escaped or were carried off.

(7) [The Greeks] προϊόντες δὲ οὖτοι τὰς νέας τῶν βαρβάρων ἐς φυγήν ὄρμησαν
(Hdt. 7.179)
These, when they sighted the foreigner’s ships, took to flight.

(8) [Demaratus to the Persians] Ἡκουσάς μὲν καὶ πρότερον μεν, εὑτε ὄρμωμεν ἐπὶ τὴν Ἑλλάδα (...) (Hdt. 7.209.2)
I have told you already (...) when we were marching off to Hellas.

365 The places are Α 335, Н 64, Φ 265, Χ 194, μ 221. It is worthy of mention that the optative ὄρμησείτε occurs three times. In addition, the transitive active ὄρμαο occurs 4 times in Homer.
(9) ἐκ μὲν δὴ τῆς ἀντίτης προσπλέειν οὐ κἂν σφι ἐδόκεε τῶνδε εἶνεκα, μή κἂς ἰδόντες οἱ "Ελληνες προσπλέοντες ἐς φυγὴν ὄρμησαν (...) (Hdt. 8.6.2)
Now they were not yet minded to make an onfall front to front, for fear lest the Greeks should see them coming and take to flight (...).

(10) [Pausanias to the Athenians about the Persian cavalry]
εἰ μὲν νυν ἐς ύμεας ὄρμησε ἄρχην ἡ ἱππας (...) (Hdt. 9.60.2)
If the cavalry would have rushed up to you first (...).

Twice, the verb is construed with an infinitive. In both cases, we are dealing with armies marching (cf. ἐξελαύνειν and στρατεύεσθαι).

(11) [Cyrus] πρὶν δὲ ἐξελαύνειν ὄρμησαι τὸν στράτον, πέμψας κήρυκας ἐς τοὺς Ἰονας ἐπειρατό σφεας ἀπὸ Κροίσου ἄπιστάναι (Hdt. 1.76.3)
But before marching off in order to lead out the army, he sent heralds to the Ionians to try to draw them away from Croesus.

(12) ἕστη δὲ ἄλλος λόγος (...) ὡς Ξέρξης ἐπέμψε κήρυκα ἐς "Ἀργος πρότερον ἡ περ ὄρμησαι στρατεύεσθαι ἐπὶ τὴν Ἑλλάδα (Hdt. 7.150.1)
(...) but there is another story told in Hellas: That before Xerxes set out to march against Hellas, he sent a herald to Argos (...).

In 4 of the instances cited above, the speed of the movement is essential, either in attack ((6) and (10)) or in flight ((7) and (9)). In the remaining 3 instances ((8), (10), and (12)) the verb means 'march, advance (against') In these cases, speed may not be important. Instead, the element of (military) force is relevant.

That speed is often essential to the semantics of ὄρμα may also be illustrated by two examples from Thucydides, where ὄρμα is modified by the adverbs μᾶλλον and μάλιστα, thereby showing its gradable character. This would be impossible if the verb would merely mean 'set off, start'.

(13) [Brasidas] χειμών δὲ ἦν καὶ ύπένειφεν· ἦ καὶ μᾶλλον ὄρμησε (...) (Th. 4.103.2)
The weather was bad and somewhat snowy, and for this reason he made the more haste (...).

(14) [of ships] αἰ μὲν μάλιστα ὄρμήσασαι τρεῖς διαφθείρονται (Th. 8.34)
The three that had pursued most hotly were wretched.

Let us now turn to intransitive ὄρμα. As I claimed above, its meaning is neutral as to speed and/or force. Instead, it focusses on the onset of the motion. To support this claim - without going through all 67 instances in Herodotus - I would like to point out that it is highly significant that ὄρμα, 59 times out of 67, is accompanied by an adverbial phrase with ἐκ or ἀπό, expressing the starting point of the motion (cf. Powell

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366 The infinitive may be interpreted as an optional final infinitive, or as a complement depending on a semantic element of volition present in the verb ὄρμα, cf. Homeric ἰέματι 'rush', but with inf. 'wish, be eager to'.

367 Possibly, the military meaning 'march, advance', which is neutral as to speed, has developed from the meaning 'storm, assail' which implies both speed and force.
1938). Furthermore, it is not surprising that the concrete spatial meaning 'set off, start' has been extended to the metaphorical meaning 'begin to', which is construed with an infinitival complement. To illustrate how different ὀρμάζωμαι is from ὀρμάω, the first three instances of ὀρμάζωμαι occurring in Herodotus may suffice:

(15) [Arion; passage in acc. plus inf.] ὄρμαζομαι μέν νυν ἐκ Τάραντος, (...) μισθώσα-σθαι πλοίον ἀνδρῶν Κορινθίων (Hdt. 1.24.2)
He set off from Tarentum and (...) he hired a ship of men of Corinth.

Arion leaves to return to Corinth. Since he is in no particular rush ὀρμάω would not have been appropriate.

(16) [Croesus to Adrastus] (...) φύλακα παιδός σε τοῦ ἐμοῦ χρηίζω γενέσθαι ὡς ἀγριν ὄρμωμένου (...) (Hdt. 1.41.2)
(...) I ask you to watch over my son as he goes out to the chase (...).

Croesus' son goes out hunting. No rush nor force involved.

(17) [Croesus sends out the Lydians to consult the oracles] ἐντελῶμενος δὲ τοῖς Λυδοῖσι τάδε (... ἀπ’ ἦς ἐν ἡμέρῃ ὄρμηθασί ἐκ Σαρδίων, ἀπὸ ταύτης ἡμερολογέοντας τὸν λοιπὸν χρόνον ἐκατοστῆ ἡμέρῃ χρύσσωσι τοῖσι χρηστηρίουσι (...)(Hdt. 1.47.1)
And (...) he gave the Lydians this charge: they were to keep count of the time from the day of their leaving Sardis, and on the hundredth day inquire of the oracles (...).

The messengers leave Sardis. There is clearly no speed involved since they are ordered to question the oracles only on the hundredth day after departure.

To conclude the discussion on the 'synonymous' pair ὀρμάω - ὀρμάζωμαι, consider the following example from Xenophon that illustrates the semantic contrast nicely:

(18) [Cyaxares leaves to make a charge on the people carrying off the spoil] Οὔτω δὴ ὁ Κυαξάρης λαβὼν τῶν ἐρρωμένων ὑπαγον τε καὶ ἄνδρων προσελκύειν. καὶ ὁ Κύρος ὡς εἶδεν ὄρμωμένους, ἔξορμα, καὶ αὐτὸς πρῶτος ἤγετο ταχέως, καὶ ὁ Κυαξάρης μέντοι ἐφείπτεσθαι (...)(Xen.Cyr. 1.4.20)
So when Cyaxares had taken some of the most powerful horses and men he advanced. And when Cyrus saw them leaving, he rushed off and soon took the lead, while Cyaxares followed after (...)

Cyrus sees Cyaxares and his men leaving (ὁρμάζωμαι), and speeds away (ὁρμάω) in order to outstrip them.

To summarize, ὀρμάω can be adequately rendered by 'rush (up to)' or 'march (against)'; ὀρμάζωμαι can be rendered by 'start off, leave'.368 The question remains how

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368 It is noteworthy that the semantic distinction between ὀρμάω and ὀρμάζωμαι appears to be a reflection of the semantics of the noun ὄρμη from which both verbs are derived. In LSJ, we find the following meanings of ὄρμη: (I) rapid motion forwards, onrush, onset, assault; (II) impulse to do a thing, effort; (III) setting oneself in motion, start. ὄρμη (I) corresponds with the ὀρμάω 'rush; march against'; ὄρμη (III) corresponds to the middle ὀρμάζωμαι 'start off'; ὄρμη (II) is of a more metaphorical nature, and corresponds - though I have not elaborated on this point - largely to the middle ὀρμάζωμαι. Incidentally, there seems to be an interesting distinction between ἀπαλλάττομαι and ὀρμάζωμαι. Though they both denote the departure
these semantic differences between the two verbs relate to their respective voice markings. My explanation runs as follows: the inherent lexical semantics of both active ὁρμάω and middle ὁρμάομαι implies the affectedness of the subject, since in both cases the subject undergoes the effect of the action, viz. a change of location. However, in the case of ὁρμάομαι the subject-affectedness is conceptualized as stronger: the verb focuses on the moment in time at which the subject undergoes a change from a stationary position into motion. Thus, ὁρμάομαι is a punctual verb. This change is cognitively more salient than that expressed by ὁρμάω, that focuses on the ongoing (and essentially unchanged) motion at high speed (atelic/durative Aktionsart). In sum, the middle inflection of ὁρμάομαι highlights the relatively salient change undergone by the subject. As a consequence, scenario (ii) above is applicable: both verbs involve a degree of subject-affectedness, but in the case of middle ὁρμάομαι, the affectedness of the subject is emphasized.

5.1.2 πειράω vs. πειράομαι

I will continue now with a discussion of the pair πειράω - πειράομαι. In Homer, the active occurs 10 times, against 66 instances of the middle (including ἐπειρησάμην and ἐπειρήσατον). It is possible to distinguish a number of different meanings of Homeric πειράω - πειράομαι. As we shall see, the active and middle verbs are, to some extent, distributed differently with respect to the variant meanings.

The active verb πειράω exhibits three meanings in Homer ('A' as in 'A1' stands for 'Active'):

A1. make an attempt on by words (+ gen. [human]) [2x]

(19) μὴ μεν πειράτω τοῦ εἰδότος, οὐδὲ με πείσει (I 345)
[pειράομαι] [metrically equivalent]
Let him not tempt me who know it well; he will not persuade me.

Cf. also: I 181.

from some starting point, the difference lies in the nature of the starting point and the goal of the movement. That is, ἀπαλλάσσομαι seems to designate going away from a place where something has happened or something is done by the person who leaves (e.g. leave after battle), whereas ὁρμάομαι implies that the subject leaves with the intention of achieving a specific goal elsewhere (e.g leave to go to battle). This may explain why ὁρμάομαι has developed the metaphorical, psychological sense of 'be eager to, be minded to' (often in the perfect stem), which focusses on the intention of the subject while backgrouncling the element of spatial motion.
A2. try by force (+ inf./+ ὄς/+ ὁκος-clause\(^{369}\)) [6x]

(20) [Telemachus to suitors]

τείρησο ὄς κ' ὑμιμι κακάς ἐπὶ κήρας ἱῆλω (β 316)

(...I will try to send upon you fates of evil death (...).

Cf. also: Δ 66=71, Θ 8 [πειράτω; πειράσθω metr. equiv.]. T 30, δ 545 [πείρα; πειρῶ metrically equivalent].

A3. make an attempt on by force\(^{370}\) (+ gen. [animal]) [2x]

(21) κέλεται δὲ ἐ θυμός ἀγήνωρ

μήλων τείρησοντα καὶ ἐς πυκνὸν δόμον ἐλθεῖν (M 301= ζ 134)

And his proud spirit tells him to go even into the well-built fold to make an attempt on the flocks.

Now the middle variant πειράωμαι shows five meaning variants:

M1. try (mostly by force) (+ inf./+ ὄς-clause/ellips) [8x]

This meaning is similar to (A2).

(22) [TrojanS at the gates of the Greek camp]

tοι δὲ κατ’ αὐτᾶς

ιστάμενοι πειράντο βίη ῥήξαντες ἔσελθειν (M 341)

And before them stood the foe, and tried to break them by force and enter in.

Also: Δ 5\(^{371}\), E 279 [abs.], Z 435 [abs.], N 457 [abs.], Φ 459 [πειρά; πειρᾶς metr. equiv.], X 381 [abs.], δ 417 [sc. ἀλύξαι]

M2. make an attempt on by words (+ gen. [human]) [1x]

This meaning is similar to (A1).

\(^{369}\) It is hard to tell whether the ὄς/ὁκος-clause is a complement or an optional satellite. The fact that πειράω does not occur with ἵνα nor ὰφα (introducing optional final clauses) may be an indication that the ὁκος-clause is complementary.

\(^{370}\) Probably, this meaning comes closest to what must have been the original meaning of πειράω. The noun πειρᾶς (< *per-yh\(_{2}\)) is built on the root *per- 'penetrate'. Hence, the original meaning of the noun must have been something like 'penetration (through some barrier) by force'. Yet, the extended meaning 'test, experience' may also be quite old, witness Latin experior 'test, experience'.

\(^{371}\) Δ 5: αὐτίκα ἐπειράτο Κρονίδης ἐρθέσθεν Ἡρην/ κερτομίοις ἐπέεσσε ('And immediately the son of Cronos attempted to provoke Hera with mocking words'). Although no physical force is involved, πειράωμαι here still appears to have an aggressive and hostile nuance.
(23) πειράξ ἐμεῖο, γεραῖε, νεοτέρου, οὖδὲ με πείσεις (Ω 433)
You make trial of me, old sir, a younger man than you; but you will not persuade me.

M3. test, try (mostly by force) (+ gen. [human]/ellips) [24x]

(24) [Zeus challenges the gods to a tug-of-war]
γνώσετ' ἐπειθ' ὅσον εἰμὶ θεῶν κάρτιστος ἀπάντων.
ἐὶ δ' ἀγε πειρήσασθε, θεοί, ἵνα εἰδήσετε πάντες (Θ 18)
[sc. μεν?] Then you will recognize how far the mightiest am I of all gods. But come on, just try it, you gods, so that you all may know.

That the action has the character of a test (the subject desires to know whether the genitival object is capable of something, cf. English try me), is shown by the many cases in which the implicit question underlying the test is made explicit. In the example above, Zeus trusts that the trial of strength will reveal his superiority to the gods (γνώσετ' ἐπειθ' ... and ἵνα εἰδήσε ...). Other examples are:

(25) [Achilles challenges Agamemnon to take away his gifts]
ἐὶ δ' ἀγε μὴν πείρησαι, ἵνα γνώσως καὶ οἴδε:
αἰσχρὰ τοι εἴμα κελαίην ἐρωθήσει περὶ δουρὶ (Α 302)
Come on, just try it, so these men here also may know: at once your dark blood will spurt around my spear.

Here the expected 'test-result' (ἵνα γνώσως καὶ οἴδε:) is made explicit in the next line (αἰσχρὰ ... περὶ δουρὶ).

(26) ὁφρον' ἐτι καὶ Τρώων πειρήσομαι ἄντιον ἐλθών,
αἰ κ' ἐθέλωσο' ἐπὶ νησιν ιαύειν (Τ 70)
(...) so that I may go out against the Trojans and make trial of them yet again, whether they are minded to spend the night by the ships.

The question to be answered is αἰ κ' ἐθέλωσο' ἐπὶ νησιν ιαύειν.372

(27) πάντη δ' ἀμφί φάλαγγας ἐπειράτο προσοδίζων,
ἐὶ πάς οἱ εἰςεἵκων (Ν 806)
And everywhere he made trial of the battalions, moving forward step by step, to see if they would perhaps give way before him.

In this example, the added indirect question (εἰ + oblique optative) shows that this meaning is related to that of (M5) question.373 Other examples with explicit 'test-result' are K 444, Φ 225, Ψ 804, π 305, ω 216.

---

372 It is also possible to interpret the εἰ-clause, not as an indirect question 'in order to see whether ...', but as a conditional clause: 'I will test the Trojans, if they will wish, etc.'.

373 In many cases, εἰ-clauses combined with πειράματι are ambiguous. They can be interpreted both as a final clause ('in the hope that') and as an indirect question (see Wakker 1994: 370-1).
In many cases the test-character of the action is not explicitly expressed. However, in these cases, too, we can assume that middle πειράματα conveys (albeit implicitly) this semantic nuance. E.g.:

(28) καὶ ἐκτελέσειν ἀέθλους
πολλοὺς, τοὺς Φαντήκες ἐκείρησαν᾽ Ὀδυσσῆος (3 2-3)
[toũς; internal accusative]
(... and that he might accomplish the many feats in which the Phaeacians made trial of Odysseus.

Cf. also: Β 73 [sc. υἱῶν Ἀχαίων], Β 193 [sc. υἱῶν Ἀχαίων], Ε 129 [sc. σεν], Ε 220 [sc. Diomedes], Λ 386 [sc. μεν], Π 590 [abs.], Υ 349, Υ 352 [= Τ 70], Φ 580, Ψ 553, Θ 120 [sc. one another], Θ 126, Θ 205 [sc. μεν], Θ 213 [sc. everyone], Θ 377 [abs.]

M4. try, test, investigate (+ inanimate gen.) [23x]

(29) ὅφρα μεθ᾽ υμῖν
χειρῶν καὶ σθένεος πειρήσομαι, ἥ μοι ἐτ᾽ ἔστιν
ις, οἴῃ πάρος ἔσκεν ἐνι γναμπτοῖοι μέλεσιν,
ってしまった μοι ὄλεσσαν ἄλη τ᾽ ἀκομαιτίπ τε (φ 282)
(... that in your midst I may prove my hands and strength, whether I have still vigour such as was formerly in my supple limbs, or whether by now my wandering and lack of food have destroyed it.

The disjunctive indirect question expresses the question that is to be answered by the test.
The genitival complement can express the particular quality of the subject that is tested (as in φ 282 above: χειρῶν καὶ σθένεος), or it can express the test-object by means of which one tries one's powers, e.g. τοῦ τόξου in:

(30) καὶ δὲ κεν αὐτός ἐγὼ τοῦ τόξου πειρησάμην·
εἰ δὲ κεν ἐντανόκωι διοιστεύσω τε στιδήρου (φ 113)
And I too myself might make trial of that bow. If I shall string it and shoot an arrow through the iron (...).

Again, the question that is to be answered by the test is expressed explicitly (εἰ δὲ κεν ἐντανύσω).

Cf. also: Ο 359, Σ 601374, Τ 384, Ψ 432, Ψ 707=753=831, ζ 126 [πειρήσομαι ἡδὲ ἱδομαί; sc. the unknown people], θ 100, θ 145, θ 149 [sc. ἀέθλων], θ 184, σ 369, φ 135, φ 159 [cf. ζ 159], φ 180=268, φ 184 [sc. ἐντανύσαι;], φ 394, φ 410.

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374 At Σ 601 πειράματα seems to be construed with an accusative object: ὡς ὅτε τις τροχῶν ἔρμενον ἐν παλάμησιν/ ἔξομενοι κεραμεύς πειρήσαται, αἱ κε θέσιν. It is, however, preferrable to interpret the accusative as a thematic object in a proleptic construction or as an anacoluthon in which ἐν παλάμησιν ἔχων is to be understood.
M5. test by questioning (+ gen./ellips) [8x]

(31) ἐλθὼν τώνδ' ἀνδρῶν πειρήσομαι, οἳ τινὲς εἶσιν (τ 174)
I will go and make trial of these men, to learn who they are (...).

Also: Ω 390, δ 119 [sc. Telemachus] = ω 238 [sc. Laertes], ν 336, τ 215, ψ 181, ω 240
[sc. Laertes].

M6. experience (+ gen.) [2x]

(32) τοῖς ἀλλοις κοίλης ἔντοσθε φαρέτρης
κεῖσθαι, τῶν τάχ' ἐμέλλον Ἀχαῖοι πειρήσεσθαι (φ 418)
But the others [arrows] were stored within the hollow quiver, those of which the Achaean were soon to
get experience.

Also: γ 23 [abs.; perfect: 'be experienced'; frequent in Classical Greek].

The different meanings of πειράω and πειράσομαι are summarized in the table
below. We may observe that some meanings occur exclusively with one particular form,
and that there is an overlap in the meaning try (by means of force).

Table 1: Different meanings of πειράω and πειράσομαι in Homer

<table>
<thead>
<tr>
<th>πειράω [10x]</th>
<th>πειράσομαι [66x]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3. make an attempt on by force (+ gen. [animal])</td>
<td>2</td>
</tr>
<tr>
<td>A2/M1. try (mostly by force) (+ inf/+ ὄχ/+ ὀποῖς)</td>
<td>6</td>
</tr>
<tr>
<td>A1/M2. make an attempt on by words (+ gen. [human])</td>
<td>2</td>
</tr>
<tr>
<td>M3. test (mostly by force) (+ gen. [human])</td>
<td>---</td>
</tr>
<tr>
<td>M4. try, test, investigate (+ gen. [inanimate])</td>
<td>---</td>
</tr>
<tr>
<td>M5. test by questioning</td>
<td>---</td>
</tr>
<tr>
<td>M6. experience</td>
<td>---</td>
</tr>
</tbody>
</table>

Now what can we learn from the table? First, the meanings test (+ gen), test by questi-
oning, experience are exclusively expressed by the middle verb. The active form, on the
other hand, occurs exclusively in the meaning: make an attempt on by force (be it only in
two identical lines).375 Subsequently, the question arises as to the rationale behind this

375 The question may arise whether it is justified to distinguish the meanings πειράω + gen. [animal]
'make an attempt on X by force' from πειράσομαι + gen. [human] 'test X' (mostly by means of force). Do
they not rather, although they differ in voice, express the same meaning? My answer would be negative. It is
significant that in the sole instance of the active form construed with a genitive complement, this comple-
ment is non-human: μῆλλων (M 301 = ζ 134), whereas in the 23 instances of the middle verb with a genitive
distribution. I would like to suggest that there is indeed one: the meanings that are exclusively expressed by the middle form each involve an element of cognition, i.e. the subject acquires information as a result of the event, either by testing or by questioning the object. Or the subject may acquire information about the object in a non-volitional way. Conversely, the active voice seems to be neutral as to the aspect of cognition.

As was noted above, both the active and the middle voice occur in the meaning try (by means of force) to X (+ inf./+ ὑς/+ ὀπως/ellipsis). It is possible, though hard to prove, that the middle voice conveys the semantic nuance that the subject acquires knowledge as a result of the attempt, which then can be considered as a trial of strength. In this case, the meaning of πειράματι (+ inf./+ ὑς/+ ὀπως/ellipsis) can contain the same element of cognition as the meanings (M3) and (M4) test (by means of force) somebody/something. Thus, in example (22), τοι δὲ κατ' αὐτάς/ ιστάμενοι πειρώντο βιὴ ῥήξαντες ἔσελθείν (M 341), the middle may express that the Greeks, as a result of the attack, know whether or not they are strong enough to break in. Furthermore, the availability of two variant forms, active and middle, to express the frequently occurring meaning 'try to' is obviously convenient for metrical purposes.

I will not go into the opposition between πειράω and πειράματι in Classical Greek in much detail, since the middle πειράματι has almost been completely generalized at the cost of the active verb (e.g. Herodotus: 3x πειράω vs. 88x πειράματι). Instead, I will briefly discuss Thucydides, the only classical author in which the opposition is still alive. In Thucydides, too, it appears that the element of cognition is relevant to the distribution of πειράω and πειράματι. Thucydides consistently uses the middle form to express the meaning 'experience', where the element of cognition is apparent. On the other hand, he uses the active verb to express the cognition-neutral meanings: (i) 'seduce'; (ii) 'try something'; (iii) 'make an attempt on something by force'. Further, he uses the active πειράω with an infinitive-complement, always with the special nuance 'try to V by means of force'. Conversely, the middle πειράματι plus infinitive 'try to V' is neutral as to the element of force, for example, (...) τοῖς δὲ ρωμαίοις καὶ ἔξεσθαι πειράματι (Th. 6.34.1) ('... and to endeavour to make friendship with others').

διαμόσσεται, ἦ κεν ἐγὼ τὸν ["Εκτόρι to be construed with ἀντιβήν] ('And to make trial, man to man with Hector, whether he will slay me or I him').

376 E.g., Th. 2.44.2, 2.85.2, 4.108.6, 4.114.4, 5.111.1.
377 Only Th. 6.54.3; in fact a passive aorist to πειράω.
378 With internal accusative: πᾶσαν ἴδεαν (2.19), πολλά (6.38.2).
379 With genitival object: Th. 4.25.10, 6.63.2, 7.37.3, 4.100.1, 2.77.2.
380 E.g., πειράματες κατάλαβείν τὴν πόλιν (Th. 2.5.5) ('having tried to seize the city'). Cf. also 2.72.2, 4.128.1, 4.9.2, 4.102.1, 7.32.
381 The other instances of πειράματι + inf. (37): 1.25.1, 1.71.7, 1.81.3, 1.143.1, 1.144.4, 2.33, 2.35.3, 2.65.1, 3.38.2, 3.39.1, 3.54.1, 3.63.1, 4.15.2, 4.41.3, 4.49.4, 4.60.2, 4.61.2, 4.66.4, 4.92.4, 4.92.7, 4.117.1, 4.126, 5.35.5, 5.69.1(bis), 5.112.2, 6.18.6, 6.34.1, 6.38.4, 6.40.6, 6.48, 6.87.3, 6.89, 8.3.5, 8.63.3, 8.76.6. The fact that the middle πειράματι + inf. is neutral with respect to the element of (military) force does not exclude the verb being used in a context in which force is involved. These cases resemble the use of the active form, e.g., ὕφικημενοι δὲ μηχανάς τε τῇ Ποταίδαιᾳ προσέφερον καὶ παντὶ τρόπῳ ἑπειρώντο.
Clearly, in the case of πειράματα + inf. in the neutral meaning ‘try to V’, the semantic element of cognition is somewhat diluted. It may, however, still be present, since in attempting to do something, the person who makes the attempt will always be curious as to the outcome.

To conclude our discussion of πειράματα, the semantic distinction we have found between active πειράματα and middle πειράματα - the semantic element of cognition - can conveniently be connected with the general meaning of the active and middle voices. Middle πειράματα expresses that the subject-referent is affected in that he undergoes a mental change. In this manner, the verb is semantically related to cognition-verbs like πυθάνομαι ‘hear/learn that; ask’ and άισθάνομαι ‘perceive’. Conversely, the active πειράματα is neutral with respect to subject-affectedness.\(^{382}\)

### 5.1.3 πολιτεύω vs. πολιτεύομαι

According to Kühner-Gerth, the active πολιτεύω means ‘bin πολίτης’, whereas the middle means ‘verwalte den Staat’, and the passive ‘lebe unter einer Verfassung, in e. Staate’ (I\(^2\): 525). In the aorist stem, the three forms are, indeed, neatly distinguished: ἐπολίτευσα, ἐπολίτευσαμην, ἐπολιτεύθην.\(^{383}\) However, the semantic distinction between active πολιτεύω (aor. ἐπολίτευσα) and middle πολιτεύομαι (aor. ἐπολιτεύσαμην) is not as cut-and-dry as Kühner-Gerth’s remark suggests. In fact, the opposition appears to have a very marginal existence. Only Xenophon uses both the active (6 times) and the middle form with middle meaning (about 10 times). Apart from Thucydides, no other classical authors use the active verb. Thucydides, on the other hand, only uses active πολιτεύω ‘be/act as a citizen’ (17 times), and never the middle form. Only the passive aorist (with passive meaning) occurs once. This situation is summarized in the following table:

\(382\) The semantic distinction between πειράματα and πειράματα seems to be a reflection of the semantics of the noun πείρα from which both verbs are derived. In LSJ we find the following meanings: (I 1) trial, attempt and experience; (I 2) experiment; (II) attempt on or against one and (abs.) attempt, enterprise. It appears that πείρα (I) corresponds roughly with the middle verb, while πείρα (II) corresponds with the active verb. Note further that the semantic distinction between πειράματα and πειράματα resembles the distinction between ἔδειξεν and ἰδέσθανε as demonstrated by Bechert (1964): middle ἰδέσθανε expresses that a lasting mental impression is made on the subject.

\(383\) Passive πολιτεύομαι may be compared to βασιλεύομαι ‘be ruled by a king’ (to βασιλεύω + gen. ‘be king of’) and ἀρχομαι ‘be ruled’ (to ἀρχει + gen. ‘rule’). Cf. also δημοκρατέομαι (aor. ἐδημοκρατήθην) ‘be governed democratically’.

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Table 2: The occurrence of πολιτεύω and πολιτεύομαι

<table>
<thead>
<tr>
<th>ACTIVE</th>
<th>MIDDLE</th>
<th>PASSIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>πολιτεύω</td>
<td>πολιτεύομαι</td>
<td>πολιτεύομαι</td>
</tr>
<tr>
<td>(ἐπολιτέυσα)</td>
<td>(ἐπολιτεύσαμεν)</td>
<td>(ἐπολιτεύθην)</td>
</tr>
</tbody>
</table>

| Xenophon | + | + | + |
| Thucydides | + | - | + |
| Others | - | + | + |

As was noted above, the semantic distinction between active πολιτεύω 'bin políte' (stative) and middle πολιτεύομαι 'verwalte den Staat' (activity) is not as clear as Kühner-Gerth take it to be. Thucydides uses the active form with the meaning 'be a citizen' (stative), but also in a more active sense 'function as a citizen, act politically'. E.g. static 'be a citizen':

(33) (...) ὁ Βρασίδας τοὺς μὲν μετὰ τῶν Ἀθηναίων Τορωναίους καταπεφυγόσι κήρυγμα ἐποιήσατο τὸν βουλόμενον ἐπί τὰ ἑαυτοῦ ἑσελθόντα ἀδεῶς πολιτεύειν (...) (Th. 4.114.1)

(...). Brasidas made proclamation to the Toroneans who had taken refuge with the Athenians, that whoever wished might return to his property and be a citizen without fear; (...)

Activity 'act politically', e.g.:

(34) οἱ δὲ τούτοι τε πάντα ἐς τοῦναντίον ἔπραξαν καὶ ἄλλα ἔξω τοῦ πολέμου δοκοῦντα εἶναι κατὰ τάς ἱδίας φιλοτιμίας καὶ ἱδία κέρδη κακῶς ἔς τε σφᾶς αὐτῶς καὶ τοὺς συμμάχους ἐπολίτευσαν (...) (Th. 2.65.7)

But they acted not only contrary to his advice in all these things, but also in matters that apparently had no connection with the war they were led by private ambition and private greed to adopt policies which proved injurious both to themselves and their allies (...).

These people are not just in a state of being citizens. The active ἐπολίτευσαν must refer to an active political behaviour (cf. also ἔπραξαν before), namely a behaviour that aims at the benefit of their allies and of themselves. In a comparable expression, Lysias uses the middle verb:

(35) [subject: those that beat the phalluses off the Hermes-statues]

(...), καὶ εἰς ἄπασαν τὴν πόλιν ἡμαρτήκασιν, ἀδίκως καὶ παρανόμως καὶ πρὸς τοὺς ἄλλους πολιτεύομενοι καὶ πρὸς σφᾶς αὐτούς διακείμενοι (...) (Lys. 14.42)

(...). and they committed offences against the whole city, showing injustice and illegality alike in their public treatment of their fellow-men and in their behaviour to each other (...).

It appears that Thucydides uses the active voice both in the stative meaning 'be a citizen' and in the activity-meaning 'act politically'. This observation is, of course, in keeping with the fact that Thucydides does not use the middle verb (save with a passive meaning).
In Xenophon, who as we have seen is the only author using both πολιτεύω and πολιτεύομαι (with middle meaning), it is unclear what factor determines the choice of either of the verbs. This obscure situation may well be caused by the circumstance that, in the real world, being a citizen usually implies that one governs the state (esp. in Athens) and/or lives under a certain constitution, and vice versa. In this fashion the contrast between the neutral active on the one hand, and the middle/passive on the other, may easily become blurred. Illustrative examples of this confusion are the following:

(36) ἔδοξε τῷ δήμῳ τριάκοντα ἄνδρας ἔλεσθαι, οἳ τοὺς πατρίους νόμους συγγράψουσι, καθ' οὓς πολιτεύομαι (Xen. HG 2.3.2)
It was voted by the people to choose thirty men to frame the ancient laws into a constitution under which to conduct the government.

(37) αἱρεθέντες δὲ ἐφ' ὅτε συγγράψαι νόμους, καθ' οὕστινα πολιτεύσιντο (Xen. HG 2.3.11)
(...); although chosen for the purpose of framing a constitution under which to conduct the government (...).

(38) ἔπειτα δὲ νόμους θείναι, καθ' οὓς πολιτεύσιντο (Xen. HG 5.3.25)
Secondly, they should draw up a constitution under which to conduct government.

The active and the two middles refer to the same state of affairs in reality. I fail to notice any semantic nuance. In the following example, Xenophon uses the active verb in a comparable context as Thucydides above (34):

(39) [Alcibiades] (...) ἐπιβουλευθεὶς δὲ ὑπὸ τῶν ἐλαττὸν ἐκείνου δυναμένων μοχθηρότερά τε λεγόντων καὶ πρὸς τὸ σύντον ὅδιον κέρδος πολιτευόντων, ἐκείνου ἀεὶ τὸ κοινὸν αὐξοντος (...)(Xen. HG 1.4.13)
(... but rather because he was plotted against by those who had less power than he and spoke less well and ordered their political doings with a view of their own private gain, whereas he was always advancing the common wheat (...).

As in Thucydides’ examples above, the active πολιτεύω appears to refer to political activity, rather than to a state. To all appearances, Xenophon does not use the active and middle with any semantic distinction. The question now remains how we must account for the occurrence of both the active and the middle verb. Tentatively, I would suggest that there is a stylistic difference: πολιτεύομαι is the normal form, in Attic as well as elsewhere, whereas πολιτεύω is restricted to Thucydides. In other words, my guess is that in using the active verb, Xenophon - consciously or not - commits a Thucydideanism. It is, in any case, significant that 5 of the 6 instances of active πολιτεύω (also once in the Anabasis) occur in the Hellenica, which is Xenophon’s sequel to Thucydides’ Histories. The consequence of the absence of a semantic distinction between πολιτεύω and πολιτεύομαι (with non-

384 It can, however, not be excluded that the latter two examples must be interpreted as passives: 'according to which they would be governed'.

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passive meaning) is that scenario (iii) above applies: both verbs imply subject-affectedness, and the active inflection is neutral with respect to subject-affectedness.

An interesting additional question might be how πολιτεύομαι is to be classified as to middle usage type. Πολιτεύομαι is often mentioned as the prime example of a dynamic middle. Schwyzter-Debrunner (II: 232) describes the dynamic middle thus:

(40) "Die gefühlsmäßige Beteiligung des Subjektes am Verbalinhalt, die das Medium gegenüber dem Aktiv zunächst ausdrückt, wirkt sich teilweise durch Steigerung des Verbalinhaltes aus: intensives (oder dynamisches) Medium."

In other words, the dynamic middle heightens the intensity of the lexical verbal content. The problem with such a definition is that it is rather unspecific (not to say vague), and ad hoc. Gildersleeve, in his review-article on Stahl's syntax, rightly puts it as follows:

(41) "And now we have come to what I would fain call the drip-pan middle, the πανάκτ-κτης-middle, the middle that is put at the bottom to catch the drippings of the other uses as the ablative is put to catch the drippings of the other cases. It is called the intensive middle, the dynamic middle" (Gildersleeve 1908: 277)

Indeed, Gildersleeve's sarcasm is justified if we consider Stahl's inventory. His enumeration of 'dynamic' middles constitutes quite a mixed bag. Consider, for example, παρέχεσθαι, στρατεύεσθαι, λαβέσθαι, πολιτεύεσθαι, ἐκεσθαι, ἰδέσθαι, and πετράσθαι (Stahl 1907: 57-62). How should this group of verbs be dealt with then? They should not, in my view, be lumped together. For each of these verbs, the middle voice can be explained differently. I shall confine myself to the examples I mentioned above. (i) Παρέχεσθαι can be taken as an indirect reflexive. The subject maintains control over the things he contributes, and so the subject can still benefit from it. The active form παρέχω lacks this implication. (ii) Στρατεύεσθαι can be considered a body motion middle since it is very often combined with an expression of the goal (e.g. ἐπι or ἐκ). With (iii) λαμβάνομαι, Stahl probably refers to the special use of the verb with a genitive complement 'hold on to s.th.'. In chapter 2, I have explained this middle as a special type of body motion middle (see section 2.1.4). (iv) The middle inflection of ἔκομαι 'follow' can best be explained by the fact that the verb denotes a change of location (cf. the body motion middle). In addition, the middle form may express a passive element, considering that following implies that one responds to a more actively involved, initiating participant that leads the way. (iv) The use of ἰδέσθαι has been investigated thoroughly by Bechert (1964). He concludes that the middle form expresses that the perceived object leaves a strong impression on the subject (see also section 2.1.8). In other words, the middle endings of ἰδέσθαι have a fairly specific function, that is, to express that the subject is mentally affected. (vi) Above, the middle voice of πετράσθαι was explained as expressing a notion of cognition. We may conclude that in the above cases it is not necessary to invoke a special dynamic or intensive meaning of the middle form.385

To return to πολιτεύομαι, the verb that is often cited as the best example of the dynamic middle, it has been concluded above that the middle πολιτεύομαι appears to have

385 Also Wackernagel (1926-8: 127) and Margulié (1930: 117-8) doubt the existence of a distinct dynamic middle type.
the same meaning as the active πολιτεύω. This means that the middle form cannot have a
dynamic or intensive meaning - assumed that it existed - in opposition to the active form.
One question, however, is still to be dealt with: how can πολιτεύομαι then be classified as
a middle? What is the precise character of the affectedness of the subject? I would suggest
that πολιτεύομαι should be classed as an indirect reflexive middle. When a (Greek)
citizen acts politically, he benefits - or at least intends to benefit - from his actions.

5.1.4 ἀλλομαι and πηδάω

Unlike the verbs discussed above, ἀλλομαι and πηδάω are not built on the same lexical
stem.386 Again, we may pose the question whether or not a semantic distinction is can be
discerned. It will be argued here that in the case of ἀλλομαι and πηδάω the answer is
negative. The difference between the two verbs is mainly one of register, at least as far as
Attic prose is concerned. This point may be illustrated by the distribution of the two verbs
(including their compounds) over different authors and different genres:

Table 3: Frequencies of ἀλλομαι and πηδάω

<table>
<thead>
<tr>
<th></th>
<th>ἀλλομαι</th>
<th>πηδάω</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homer</td>
<td>58</td>
<td>4</td>
</tr>
<tr>
<td>Aeschylus</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Sophocles</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Euripides</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Herodotus</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Thucydides</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Aristophanes</td>
<td>8</td>
<td>19</td>
</tr>
<tr>
<td>Plato</td>
<td>6</td>
<td>22</td>
</tr>
<tr>
<td>Xenophon</td>
<td>19</td>
<td>52</td>
</tr>
<tr>
<td>Demosthenes</td>
<td>1</td>
<td>14</td>
</tr>
</tbody>
</table>

It can be observed that, in Homer, ἀλλομαι is far more frequent than πηδάω. We may
conclude that ἀλλομαι is the older word for 'jump' (probably already PIE, cf. Lat. salio
'jump'; from the same yod-present *sh₂l-ye/o- ), while πηδάω has become more frequent
in Attic.387

The two verbs exhibit the same usages. Compare the following examples from
Herodotus, where cats and frogs jump into a fire and a pool, respectively:

(42) οἱ δὲ αἰείλουροι διαδόνοντες καὶ ύπερθρόσκοντες τοὺς ἀνθρώπους ἐσάλλονται ἐξ τὸ πῦρ (Hdt. 2.66.3)
But the cats slip through or leap over the men and spring into the fire.

386 Other (quasi-)synonymous verbs such as θράσω, ὀρούω, and σκιρτάω are not taken into
consideration here, since these verbs are clearly belong to the poetic vocabulary.

387 The formation πηδάω seems to be connected to the word *pēd- 'foot'.
(43) (...) ἡ βάτραχοι γενόμενοι ἐς τὰς λίμνας ἐσπηδήσητε (...) (Hdt. 4.132.3) 
(... or become frogs and jump into lakes (...)

Two comparable examples from Homer:

(44) χειρὸς ἀπὸ στιβαρής ἁλλον πηδήσαι ἄκοντα (Ξ 455) 
(...) from the stout hand the spear has not leapt in vain (...).

(45) νευρὴ δὲ μέγ’ ἵαχεν, ἁλτὸ δ’ ὀϊστὸς ὀξυβελῆς, κοθ’ ὀμιλον ἐπιπτέσθαι μενεαίνων (Δ 125) 
(...) and the string sang aloud, and the sharp arrow leapt, eager to wing its way through the throng.

In both instances, an inanimate object (spear and arrow, resp.) ‘jumps’ away. 
The following two examples from Euripides refer to the same event.

(46) [Prologue: Electra tells how Orestes is terrorized by the Eumenids] 
ποτὲ δὲ δεμνίων ἄκο 
πηδᾶ δρομάιος, πῶλος ὅς ὑπὸ ζυγοῦ (E. Or. 45) 
(...) while at other times he leaps from the bedding and runs about like an unyoked colt.

The present stem πηδᾶ here expresses iterativity.

(47) [Orestes, in a frenzy:] 
ποί ποί ποθ’ ἡλάμεσθα δεμνίων ἄκο; (E. Or. 278) 
Where ever have I leapt to from my bed?

The aorist stem designates a single event. 
Next, consider the following passage from Xenophon.

(48) [a raw horse] (...) ἀλλ’ ἂν μόνον ἵδη ὁπισθὲν τινα ἐπελθόντα, ἀλεῖται. ἐπειδὰν 
δὲ οὔτω διαπῆδαν ἠθισθῇ (...) (Xen. Eq. 8.4-5) 
(...) for if he merely sees a man approaching behind him, he will leap. As soon as he has grown 
acustomed to leap in the way (...).

There does not appear to be a semantic motivation for first using ἄλλομαι and consequent- 
ly πηδᾶω. The alternation between the two verbs is probably due to a striving for variatio.388 Another example is

(49) πηδήμα κοῦφον ἐκ νεώς ἀφῆλατο (A. Pers. 305) 
He jumped a light leap from the ship.

Here, the action noun πηδήμα is used as an internal object to ἀφῆλατο. From these 
examples, it can be concluded that ἄλλομαι and πηδᾶω are semantically identical. The 
question then remains as to what factors determine the use of the two verbs. Let us first 
examine the distribution in poetry. As was noted above, Homer strongly prefers ἄλλομαι, 
which may indicate the antiquity of the verb, as compared to πηδᾶω. In classical poetry

388 A similar case can be found in Xen. Eq. 3.7 and Eq. Mag. 8.3.
the situation is different. The tragedians prefer πηδάω, which probably reflects the contemporary Attic usage. In tragedy, ἄλλομαι appears to be used under specific conditions, as can be seen in table 4, which depicts the occurrences of the two verbs (and their compounds) in Aeschylus, Sophocles, Euripides, and Aristophanes (fragments excluded):

<table>
<thead>
<tr>
<th>Verb</th>
<th>Present</th>
<th>Aorist</th>
</tr>
</thead>
<tbody>
<tr>
<td>ἄλλομαι</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>πηδάω</td>
<td>34</td>
<td>15</td>
</tr>
</tbody>
</table>

We can observe that the Attic dramatists exhibit a fairly clear tendency to use ἄλλομαι in the aorist stem, and πηδάω in the present stem. This tendency is not discernible in prose: in Herodotus, Thucydides, Xenophon, Plato, and Demosthenes ἄλλομαι occurs 28 times, of which 21x present, and only 3x aorist. The distribution of πηδάω and ἡλικτής πηδάω in drama is, one may conclude, not determined semantically. A possible alternative explanation is that metrical factors are relevant. Assuming that πηδάω is used as the unmarked default-option in drama as it is in Attic prose, the poet will encounter difficulties when trying to fit the aorist forms of πηδάω in the iambic metre, e.g. ἐπηδησας, ἐπηδησας, ἐπηδησε, etc. In such cases, he will have to take recourse to the synonymous aorist forms of ἄλλομαι. This mechanism would explain why ἄλλομαι is virtually confined to the aorist stem.

Now let us turn to the use of the verbs in prose. In prose, the choice of ἄλλομαι appears to be a matter of register. ἄλλομαι, as I will argue, belongs to an elevated, more poetic, register, whereas πηδάω is neutral from a stylistic point of view. This is especially supported by the use of ἄλλομαι in Plato. ἄλλομαι appears six times in the works of Plato. In all six cases, we are dealing with a stylistically marked context. The clearest example, in this respect, is Ion 535b which clearly refers to the Odyssey (χ 2).

389 ἄλλομαι has two aorist forms: thematic ἡλικτής and pseudo-sigmatic ἡλικτής. At A. Pers. 516 (see comm. Groeneboom), Eu. 372, and Soph. OT 1311 (see comm. Jebb), there is some doubt between imperfects ἡλικτής- and thematic aorists ἡλικτής- . The thematic aorist, however, is semantically and textually preferable in every case.

390 The future occurs once. Excluded from these numbers are three cases in Xenophon, where the mss. vary between present and thematic aorist: HG 4.4.11, 4.5.7, An. 4.2.17.

391 Indeed, these forms do not occur in drama, unless with elision (e.g. ἀνεπηδησε*).

392 It should be noted that, from a semantic point of view, one would expect a preponderance of aorist forms, given the punctual aspect of the lexical meaning. In Homer, indeed, the aorist occurs 56 times, the present only twice. Furthermore, the formation also points to a punctual (or at least telic) Aktionsart, since the root aorist formation ἄλλομαι is morphologically unmarked, as opposed to yod-present ἄλλομαι (< *sh₂)-yo-). The two exceptional cases of ἄλλομαι in drama used in the present stem (both cases with iterative meaning) are found at Ar. Nu. 145 (Socrates asks Chaerophon about a flea: ὁπόσους ἄλλομαι τοῦς αὐτῆς πόδας 'how many of its own feet a flea could jump'), and at Lys. 83 (the Spartan girl Lampito asserts: γυναικιδομαι γὰρ καὶ ποτὶ πνημὸν ἄλλομαι ('At any rate I do gymnastics and jump heel-to-buttocks')). Aristophanes may have used the more elevated ἄλλομαι here to a comical effect.
Compare Homer:

(51) ἀλλο τὸ ἐπὶ μέγαν οὐδὸν ἔχων βιῶν ἥδε φαρέτρησθαι (χ 2)
He sprang to the broad threshold with the bow and the quiver (...).

Plato uses the verb ἀλλομαί in order to remain close to the original wording of Homer. Notice that he also employs the Homeric form οὐδόν, instead of Attic ὄδόν.

Likewise, the case of Lg. 653e τὰ μὲν ἀλλόμενα καὶ σκιρτάντα - about the inclination of young beings to move around and cry out - has a poetic ring to it. This may be inferred from its occurrence in the hendia dys, and from the fact that σκιρτάω is a verb that is typically used in poetry.393

Next, consider Phdr. 255c:

(52) καὶ οἶον πνεύμα ἢ τις ἡχὼ ἀπὸ λείων τε καὶ στερεῶν ἀλλομένη πάλιν οθεν ὀρμήθη φέρετα, οὐτό τὸ τοῦ κάλλους ρεῦμα πάλιν εἰς τὸν καλὸν διὰ τῶν ὁμμάτων ἴον, (...) (Pl. Phdr. 255c)
And just as the wind or an echo rebounds from smooth, hard surfaces and returns whence it came, so the stream of beauty passes back into the beautiful one through the eyes, (...).

The use of ἀλλομαί is in accordance with the exalted style of this simile (cf. also the use of the poetic word ὄμμα).

In the next case in Plato, Cra. 413b, ἦκερ τὰ ἑσχαμένα ἀλλεσθαι (‘to jump over the trenches’), we are dealing with a proverbial expression originating from the language of athletics, which conveys the idea "going too far". It is a common phenomenon that proverbial expressions exhibit a somewhat conservative wording. Hence, the occurrence of ἀλλεσθαι here, instead of πηδᾶν, is not surprising.

The last two cases of ἀλλομαί in Plato are related somehow, if however in an unclear manner. Both cases concern a combination of the verbs θεῖν καὶ ἀλλεσθαι:

(53) Θείν δὲ καὶ ἀλλεσθαι καὶ τὰ τοῦ σώματος ἀπαντα ἑργα, οὐ τὰ μὲν ὄξεως καὶ ταχῦ γγνόμενα τὰ τοῦ καλὸν ἐστίν, (...) (Pl. Chrm. 159c)
And with running and jumping and all the movements of the body, aren’t the ones that are performed briskly and quickly the admirable ones?

(54) [etymology of the word θάλλειν]
οἵνπερ οὐν μεμήληται τῷ ὀνόματι, συναρμόσας ἀπὸ τοῦ θείν καὶ ἀλλεσθαι τὸ ὄνομα (Pl. Cra. 414b)
Something of that sort the namegiver has reproduced in the name, which he compounded of θείν (run) ἀλλεσθαι (jump).

393 At Lg. 672c, likewise referring to young beings, Plato writes ἀτάκτως αὖ πηδᾶ. Again, the difference between ἀλλομαί and πηδᾶκι appears to be stylistic (cf. also the absence of the hendia dys in 672c), not semantic. In the same manner, our example from Herodotus (2.66.3) can be explained by stylistic factors. This may also be inferred from the appearance of ὑπέρθροσκια in the same sentence, a verb that almost exclusively occurs in poetry.
As regards their content, there is no relation between the two passages. In the context of the *Charmides*, Socrates is dealing with the question of whether certain activities like playing the lyre and wrestling are more admirable when performed quickly or quietly. Likewise, he asks whether running and jumping are considered more admirable when they are performed quickly. There is no reason to assume that ἀλλομαί is preferred to πηδάω due to the elevated tone of the passage. In fact, the subject-matter is quite colloquial: boxing, wrestling, etc. How then can the use of ἀλλομαί be explained? Although I did not encounter additional instances in the TLG, the reappearance of the identical combination θείν κοι ἀλλεσθαί in the *Cratylus* suggests that we are dealing with a fixed expression that conveys the general idea of vehement movement. As in the example of *Cra*. 413b, in fixed expressions the occurrence of less colloquial words such as ἀλλομαί is not surprising.

To conclude our discussion of ἀλλομαί in Plato, it appears that the verb is used in marked contexts, either involving a higher, more poetic register (*Ion* 535b, *Lg*. 653e, *Phdr*. 255c), or involving fixed expressions (*Cra*. 413b, 414b, *Chrm*. 159c).

There is also some evidence that Xenophon used ἀλλομαί as a more elevated alternative for πηδάω.

Table 5: Occurrences of ἀλλομαί and πηδάω in the works of Xenophon:

<table>
<thead>
<tr>
<th></th>
<th>ἀλλομαί (19)</th>
<th>πηδάω (50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hellenica</td>
<td>6 (40.0 %)</td>
<td>9 (60.0 %)</td>
</tr>
<tr>
<td>Anabasis</td>
<td>4 (36.4 %)</td>
<td>7 (63.6 %)</td>
</tr>
<tr>
<td>Cyropaedia</td>
<td>4 (25.0 %)</td>
<td>12 (75.0 %)</td>
</tr>
<tr>
<td>de Equitandi Ratione</td>
<td>3 (20.0 %)</td>
<td>12 (80.0 %)</td>
</tr>
<tr>
<td>de Equitum Magistro</td>
<td>1 (25.0 %)</td>
<td>3 (75.0 %)</td>
</tr>
<tr>
<td>Memorabilia</td>
<td>1 (50.0 %)</td>
<td>1 (50.0 %)</td>
</tr>
<tr>
<td>Cynegeticus</td>
<td>0 (0.0 %)</td>
<td>6 (100 %)</td>
</tr>
</tbody>
</table>

It can be seen that, of Xenophon’s works, the *Hellenica* and the *Anabasis* have the highest ratios of ἀλλομαί as compared to πηδάω (40.0 % and 36.4 %). This may be due to the military subject-matter of these works. Especially in contexts of battles, Xenophon seems to be inclined to use ἀλλομαί: soldiers jumping on and off walls, horses, chariots, etc. The fact that Homer, too, mostly uses ἀλλομαί in this type of context may have influenced Xenophon’s usage of the verb. Through the use of ἀλλομαί, Xenophon’s descriptions of military events may have evoked an association with Homer’s battle scenes. By comparison, in the more technical works the occurrence of ἀλλομαί is less frequent (cf. *de Equitandi Ratione, de Equitum Magistro, Cynegeticus*).

To conclude, in this section I have argued that there is no semantic distinction between ἀλλομαί and πηδάω (cf. scenario (iii)). Both verbs are verbs of body motion, both verbs imply subject-affectedness. Distributional differences must be explained by stylistic or, in the case of Attic drama, by metrical factors. In section 5.2 below, the general class of motion verbs will be dealt with in relation to their voice marking.
5.1.5 θυάλομαι vs. ἐθέλω

One of the first issues that will pop up in any Greek linguist’s mind when thinking about the Greek middle voice is probably the contrast between middle θυάλομαι and active ἐθέλω. Why do these verbs have different voice-markings, even though semantically they are closely related? There have been a number of studies describing the semantic differences between the verbs, e.g. Fox (1917), Rödiger (1917), Wifstrand (1942), Madden (1975). However, none of these studies deals with the difference in voice. The aim of this section, therefore, is to analyze the relation between the semantics of the two verbs and their respective voices.

In Homer, the meanings of the two verbs are clearly distinct (see LfgE394). θυάλομαι, according to LfgE, means: "(...) eine spontane, intuit. Regung, die dem dem Vorzug gibt, was sich als vorzüglich anbietet (...) oder als das geringere Übel erscheint". The verb is often modified by πολύ or occurs with the comparative particle ἥ. In other words, θυάλομαι can be rendered by 'prefer'. As for ἐθέλω, LfgE observes that its meaning can be characterized as a spectrum between two extremes: "(1) Verlangen haben, etw. zu tun od. geschehen zu lassen (Impuls kommt in erster Linie vom Subj.) u. (2) bereit, willig sein, etw. zu tun oder geschehen zu lassen (Verhalten ist vor allem Reaktion auf von außen kommenden Impuls)". Thus, ἐθέλω can be rendered by (1) ‘wish, want’ or (2) ‘be willing’. Further, the meaning of θυάλομαι ‘prefer’395 is more specific - since it implies the existence of an alternative choice - than that of ἐθέλω which has a more general, neutral sense ‘wish, want’. This semantic difference correlates with their frequencies in Homer: θυάλομαι 38 occurrences, against ἐθέλω 292.

In Classical Greek, the boundary between θυάλομαι and ἐθέλω has gradually become fuzzier in comparison to the situation in Homer. This development is mainly due to a broadening of the meaning of θυάλομαι: the verb extended from the specific meaning ‘prefer’ to a more neutral meaning ‘wish, want’.396 As a consequence, ἐθέλω lost semantic ‘ground’ in favour of θυάλομαι. This development is reflected in the frequencies of the verbs.

394 Under θυάλομαι we find: "Den Bereich von ἐθέλειν (s.d.) berührt β. nur an den untyp. Stt. A 67, δ 353. (...)".


396 Thus, θυάλομαι did not lose its meaning ‘prefer’ in the Classical language. In many instances of θυάλομαι an alternative choice is still implied. However, the verb met with competition from the (post-Homeric) middle verb προαιροῦμαι ‘prefer’.
<table>
<thead>
<tr>
<th></th>
<th>θελω</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Homer</td>
<td>38</td>
<td>292</td>
</tr>
<tr>
<td>Aeschylus</td>
<td>3</td>
<td>68</td>
</tr>
<tr>
<td>Sophocles</td>
<td>38</td>
<td>102</td>
</tr>
<tr>
<td>Euripides</td>
<td>170</td>
<td>288</td>
</tr>
<tr>
<td>Herodotus</td>
<td>256</td>
<td>188</td>
</tr>
<tr>
<td>Aristophanes</td>
<td>193</td>
<td>93</td>
</tr>
<tr>
<td>Thucydides</td>
<td>369</td>
<td>70</td>
</tr>
<tr>
<td>Xenophon</td>
<td>788</td>
<td>292</td>
</tr>
<tr>
<td>Plato</td>
<td>976</td>
<td>527</td>
</tr>
<tr>
<td>Demosthenes</td>
<td>757</td>
<td>269</td>
</tr>
</tbody>
</table>

The preponderance of θελω in the Attic tragedians must be taken as a feature of the poetic vocabulary. In the Attic prose-authors, θελω is almost entirely reduced to the meaning ‘be willing’ (‘bereit sein, geneigt sein’, cf. Rodiger 1917: 14, Wifstrand 1942: 17). In Herodotus and in poetry, θελω has partly preserved its broader use ‘wish, intend’, cf. Wifstrand (1942: 29) ‘wünschen, beabsichtigen’. An example which neatly illustrates the semantic contrast between the two verbs is the following:

(55) έι δὲ βουλεῖ, σοι ἐγώ, ὡς τούτο οὕτως ἔχει, θελω λόγον λέξει (Pl. Grg. 522e)

If you like, I’m willing to give you an account showing that this is so.

In this example, βουλεῖ represents the mental state of wishing that exists autonomously in the subject-referent. θελω denotes that the subject only acts in compliance with the will of the other person. This example also shows another important feature of the semantics of the two verbs. In this example, the subject-referent of βουλεῖ is not in control to bring about the state of affairs that is wished for. θελω, however, does imply that the subject is in control and also has the intention of carrying out the event designated by the infinitive.

A strong indication of θελω’s more restricted use in Classical Greek prose as compared to Homer is the fact that it has almost lost the possibility to be construed with an accusative plus infinitive, a construction which is fairly common in Homer. This means that θελω requires that the subject of the main clause be coreferential with the

397 The data is drawn from the *LfgE* [Homer], Powell (1938) [Herodotus], Rodiger (1917) [others].

398 It is a remarkable fact that in post-Classical Greek (ἐ)θέλω regained the ground it had lost to βούλομαι. In the New Testament θέλω is the general word for ‘wish, want’, cf. Modern Greek θέλω. Wifstrand (1942: 31-2) explains this fact by assuming that θέλω preserved its original, more extensive, use in vernacular Attic (as it had in Ionic), i.e., the temporary success of βοúλομαι may have been restricted to the literary Attic language.

399 E.g., in Herodotus 2 times out of 188 occurrences (1.1%), whereas βοúλομαι occurs 16 times out of 256 with acc. c. inf. (6.3%).
(unexpressed) subject of the infinitive. In other words, έθέλω implies that the subject-referent performs the event himself. In the exceptional cases of έθέλω + acc. c. inf., although the subject of the main clause and the infinitival subject are not coreferential, the subject of the main clause may still be involved in the event expressed by the infinitive. E.g.:

(56) [Alexandros hears the story of the rape of Medea] δευτέρη δὲ λέγουσι γενέθι μετά ταύτα 'Αλέξανδρον τὸν Πριμόου ἀνήκοτα ταύτα έθελοντοι οἱ ἐκ τῆς Ἑλλάδος δι' ἀρισταγῆς γενέσθαι γυναικῶ, (...) (Hdt. 1.3.1)

Then (so they say) in the second generation after this Alexandros son of Priam, having heard this tale, intended to win himself a wife out of Hellas by ravishment.

Though the subject of the subordinate clause is γυναικα, and therefore different from the subject in the superordinate clause ('Αλέξανδρον), the state of affairs described in the subordinate clause clearly implies an action and a degree of control on the part of Alexandros. And, indeed, immediately after this, Herodotus describes Alexandros' rape of Helen (1.3.2). In other words, έθελοντοι does not merely express - as θες θέλω would - Alexandros' wish tout sec, but it implies the intention of the subject to realize the event denoted by the infinitive. Furthermore, the subject-referent of the main clause is involved through its role of beneficiary/recipient in the subordinate clause (οι).

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400 The feature of control exercised by the matrix subject may also be relevant to the tendency of έθέλω to occur with divine subject-referents, e.g. Dem. 2.20: (...) ὁν οἱ ὁ θεοί θέλωσι καὶ ὑμεῖς θολήσθησαν. For a similar case of contrast, cf. Pl. Alc. 1 135d. Expressions like ἐν τοῖς (έθέληθα (θεοὶ (ήθέλωσι) are frequently occurring formulas. Note that the alliteration may also have contributed to the success of these formulas.

401 Note that έθελήσας οἱ (...) γενέσθαι γυναικα is practically equivalent to έθελήσας σχεῖν γυναικα with a coreferential subject.

402 The other instance of an acc. c. inf. from Herodotus is: (...) γίνεται μοι ἄναγκαιαταν ἐνέτελεσθαι τὰ θέλω μοι γενέσθαι τελευτῶν τῶν Βιών (Hdt. 3.65.6) ('(...) necessity constrains me to charge you with what I want to be done for me as I now am dying'). While dying, Cambyses beseeches the Persian nobles never to let the empire devolve to the Medes. One may wonder whether θέλω implies control on the part of Cambyses, since he is dying. But, perhaps he - as Great King of the Persians - presents the situation as if he were still in control. Further, Cambyses is involved as a beneficiary (μοι) in the embedded event. Besides the two instances I have discussed hitherto (Hdt. 1.3.1 [ex. (56)], 3.65.6), I am only aware of two additional instances of έθέλω + acc. c. inf. in Classical Greek (see also Wifstrand 1942: 24): Pl. Lg. 628c (a peculiar case where έθέλω appears to mean 'prefer', i.e. as an equivalent of βούλομαι), and Xen. Cyr. 3.1.43 (where the matrix subject has control). Another instance of έθέλω construed with an acc. plus inf. is cited by Fox (1917: 636): (...) ἐπὶ αὐτῶν γε καὶ πόδας καὶ χεῖρας έθέλοντας ἀποστέμνεσθαι οἱ ἀνθρώποι, ἐπὶ αὐτῶν δοκῇ τὰ ἔστων πονηρὰ εἶναι (Pl. Smy. 205e) ('For men are prepared to have their own feet and hands cut off if they feel these belongings to be harmful'). Fox takes καὶ πόδας καὶ χεῖρας as accusative subject. However, as C.J. Ruijgh pointed out to me, it is better to take ὁ ἀνθρώπος as the subject of the infinitive ἀποστέμνεσθαι, which should be taken as a permissive passive ('to let themselves be cut off as to feet and hands'). The accusative καὶ πόδας καὶ χεῖρας, then, is to be interpreted as an accusative of the affected body part.
The syntactico-semantic property of subject-coreferentiality approximates ἔθελοι to the class of auxiliaries (e.g. ὑπάρχει, μέλλω). It is well known that equi-subject constructions are the main diachronic source of grammaticalized auxiliaries such as tense-aspect-modality markers (see e.g. Givón 2001b: 79-80). It is therefore no surprise that the verb eventually developed into the future particle θα in Modern Greek, e.g. θα γράφω ‘I will be writing’. This indeclinable clitic particle finds its origin in the syntagm θέλω ἵνα ‘I want that’, after a typical process of grammaticalization, viz. coalescence and attrition. In this manner, we can follow the development from ἔθελοι as a verb of full semantic content in Homer to a content verb with auxiliary-like properties in Classical Greek, and eventually into a future marking clitic particle in Modern Greek. This diachronic pathway full verb > auxiliary > clitic is one that is typically found in language-change (see e.g. Hopper & Traugott 1993: 108).

My last remark on the semantics of βούλομαι and ἔθελοι concerns their use with inanimate subjects. The use of ἔθελοι with an inanimate subject is more frequent than that of βούλομαι, and there are considerable semantic differences between the two. In cases in which βούλομαι has an inanimate subject, the subject typically refers to entities like μῦθος, τέρης, and the infinitives are verbs like σημαίνειν, λέγειν. Though βούλομαι here has an inanimate subject, the verb still implies a mental involvement of some kind, namely that of the human that wanted to convey something by means of the word or sign. Words can be identified metonymically with the human mind that produced them.

Now the use of ἔθελοι with an inanimate subject is strikingly different. Unlike βούλομαι, ἔθελοι with inanimate subject does not involve the (implicit) presence of a mental entity. Rather than to human intentionality, ἔθελοι seems to refer to the momentum that is inherent in the normal course of events.

(57) [Harpagus is deliberating whether he should kill Astyages’ infant son]

εἶ δ’ ἔθελήσει τοῦτον τελευτήσαντος ἔς τὴν θυγατέρα ταύτην ἀναβηναι ἢ τυραννίς (…) (Hdt. 1.109.4)

If after his death the sovereignty should pass to this daughter of his (…).

The construction ἔθελήσει ἀναβηναι is practically equivalent to a future ἀναβήσεται. ἔθελοι here contributes the idea of the force that is inherent in the natural course of events which brings about the transition of the tyranny. Here, as often, ἔθελοι implies that,

403 That βούλομαι, ἔθελοι, μέλλω, and δύναμαι are semantically closely related is also shown by the spread of the remarkable augment ἤ. This augment was a product of reanalysis of the pair θέλω (from ἔθελοι by aphaeresis) and the augmented form ἥθελον. This novel augment ἤ then spread through a process of analogy, e.g. θέλω : ἥθελον = μέλλω : X (= ἤμελλον). In the same fashion, ἥδυναμαι and ἥβουλομαι were created (see Debrunner 1954).

404 ἔθελοι’s development can be compared to that of English will, which originally meant ‘want’ (cf. be willing, and Dutch willen ‘want’), and now functions as a temporal auxiliary.

405 In cases where the infinitive is absent, such verbs can be understood. Then, βούλομαι is usually translated by ‘mean’, e.g. Pl. Th. 156c: τί ἤμιθν βούλεται οὕτως ὁ μύθος; (...) Βούλεται γὰρ δὴ λέγειν ὡς (...) (‘Now what does this tale mean? (...) For what it means to say is that (...)’). To complicate matters, Herodotus appears to use ἔθελοι in this type of context consistently (e.g. 2.13.3). However, Herodotus’ use of ἔθελοι seems to be generally more extensive than that of the Attic authors. This is also shown by the frequency-figures above.
unless it is blocked by an unforeseen force, the course of events will lead to the occurrence of the event expressed by the infinitive. Consider further:

(58) οἰκότα μὲν νυν βουλευομένοις ἀνθρώποις ὡς τὸ ἔπιπαν ἔθελει γίνεσθαι εὖ
(Hdt. 8.60.γ).

Success tends to come most often to men that make reasonable designs.

In such contexts, ἔθελω can be rendered by 'be wont'. Here, once again, ἔθελω refers to the force that resides in the natural course of events.

Our main question now still remains, namely: what is the relation between the semantics of ἔθελω and βούλομαι and their respective voices? My claim is that there is indeed such a relation. In general, βούλομαι implies a higher degree of mental involvement than ἔθελω. The former verb implies a positive choice, by which the subject actively and autonomously prefers one alternative to another. The latter verb typically denotes an intention that emerges under the influence of the will of another person. In making up one's mind (βούλομαι), a person is psychologically involved to a greater extent than in complying to someone's request (ἔθελω). Also the special use of ἔθελω 'be wont', and its eventual development into a temporal auxiliary shows that the mental aspect of its lexical meaning may be somewhat backgrounded. Summarizing, the pair βούλομαι and ἔθελω can be regarded as a case of scenario (ii) above. Although in the lexical semantics of both verbs an element of mental affectedness is present, this inherent element is emphasized by means of the middle voice ending in the case of βούλομαι. As for ἔθελω, the active ending, being neutral as to subject-affectedness, does not contribute to the lexical meaning of the verb.

5.2 Active and Middle Body Motion Verbs

In this chapter, I have already discussed two active-middle pairs of body motion verbs, ὀρμᾶω - ὀρμάμαι and πηδᾶω - ἀλλομαι. For these two pairs, I have tried to pin down the factors that determine the distribution of the active and the middle member of the pair. In this section, the general class of body motion verbs will be addressed. What makes this class of verbs interesting for our purpose is the fact that it is relatively numerous, and that it consists of both active and middle verbs. These include activa tantum (e.g. βαίνω), media tantum (e.g. περινίκαι), and oppositional middles (e.g. κνέωματι - κνέω). To all appearances, there is no pattern that explains why one verb is active and the other middle. However, in this section I will argue that a number of general tendencies can be discerned within this class of verbs. To this purpose, consider the following synoptical table of body motion verbs:407

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406 Interestingly, the verb φιλέω seems to have undergone a similar semantic shift from a verb designating an affection 'love' to an auxiliary meaning 'to be wont'. The change can be explained as follows: 'she (always) wants/loves to speak the truth' pragmatically implies 'she is wont to speak the truth'.

407 An exhaustive inventory and discussion of the semantics of the media tantum of motion in Homer can be found in Boeder (1961:2: 33-63). For a study of the verbs of motion in Homer, I refer to Kurz (1966). Recall that the term translational motion refers to motion along one dimension in space; non-translational motion refers to motion that is neither translational, nor involves a change in body posture.
Table 7: Verbs of body motion

<table>
<thead>
<tr>
<th>Translational Motion</th>
<th>Manner of Motion</th>
<th>Manner-neutral Motion</th>
<th>Non-Translation Motion and Change in Body Posture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active Tantum</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>βαδίζω 'walk, proceed'</td>
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<tr>
<td>διδράσκω 'run'</td>
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<tr>
<td>ἔρκω 'creep'</td>
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<tr>
<td>θέω 'run'</td>
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<tr>
<td>τρόπεω (poetry) 'jump'</td>
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<tr>
<td>κατέω 'walk'</td>
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<tr>
<td>πηδάω 'jump'</td>
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<tr>
<td>κλέω 'sail, float'</td>
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<tr>
<td>στείχω 'march straightforward'</td>
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<tr>
<td>τρέχω 'run'</td>
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<tr>
<td><strong>Other active</strong></td>
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<tr>
<td>νήχω (poetry) 'swim'</td>
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<tr>
<td>ορμάω 'rush (intr.)'</td>
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<tr>
<td><strong>Media Tantum</strong></td>
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<tr>
<td>ἰλλώμα 'jump'</td>
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<tr>
<td>κέτωμα 'fly'</td>
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<tr>
<td><strong>Other middle</strong></td>
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<tr>
<td>νήχωμα (poetry) 'swim'</td>
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<tr>
<td><strong>Oppositional Middles</strong></td>
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<tr>
<td>ἐπάλλωμα 'depart'</td>
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<td></td>
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<tr>
<td>δομα 'enter, plunge into'</td>
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<td></td>
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<tr>
<td>ἵππωμα 'stand still, stand up'</td>
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<tr>
<td>κυνώμα 'move (intr.)'</td>
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<tr>
<td>κομιζω 'travel'</td>
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<tr>
<td>ὀρμώμα 'start off (intr.)'</td>
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<td></td>
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<tr>
<td>ὄρνυμα (Hom.) 'arise'</td>
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<tr>
<td>παρεπώμα 'go, walk'</td>
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<tr>
<td>στειλλομα 'set out, journey'</td>
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<tr>
<td><strong>Active Tantum</strong></td>
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<tr>
<td>βαίνω 'go'</td>
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<tr>
<td>βλέσκω (Hom.) 'come'</td>
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<tr>
<td>ἐμι 'go' (aor. ἥλθον 'I came')</td>
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<tr>
<td>ἱκανώ 'come, have come'</td>
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<tr>
<td>ἵσων (Hom.)'</td>
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<tr>
<td>νόστο 'return'</td>
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<tr>
<td>χορέω 'yield, go'</td>
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<tr>
<td><strong>Oppositional Middles</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ἀπεπώμα 'depart'</td>
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<td>δομα 'enter, plunge into'</td>
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<td>ἵππωμα 'stand still, stand up'</td>
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<tr>
<td>κυνώμα 'move (intr.)'</td>
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<td>ὀρμώμα 'start off (intr.)'</td>
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<tr>
<td>ὄρνυμα (Hom.) 'arise'</td>
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<tr>
<td>παρεπώμα 'go, walk'</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>στειλλομα 'set out, journey'</td>
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</tbody>
</table>

The first tendency that can be observed in the table concerns the verbs of manner of motion: the majority of these verbs are actives, e.g. βαδίζω 'walk, διδράσκω 'run'. There

408 According to Létoublon (1985: 166-77), the original meaning of στείχω was 'marcher droit, en ligne', which bleached to 'go'. A similar semantic bleaching can be observed in βαίνω 'make a step' > 'go'; ἔρκω 'creep' > 'go' (in some dialects); νέομαι 'return' > 'go'; χορέω 'yield' > 'go'.

409 In section 5.0 it was argued that there was no discernable semantic distinction between νήχω and νήχομαι.

410 'Ορμάω designates motion at high speed (see 5.1.1). With some hesitation, I would regard it therefore as a manner of motion verb. Οριζομαι, on the other hand, is neutral with respect to the manner of motion.

411 Βαίνω originally meant 'make a step', and thus belonged to the class of manner of motion verbs. Βαδίζω can be considered the successor to βαίνω in Attic.

412 For the semantic distinction between present ἐμι ('centrifuge') and aorist ἥλθον ('centripète'), see Létoublon (1985: 27ff.).

413 In Homer, the middle variant ἰκάνομαι (probably formed after ἰκνέομαι) also occurs.
are a few exceptions (e.g. ἀλλοµατι). From this preponderance of actives, one may assume that this class of verbs involves a low degree of subject-affectedness. I would argue that this is indeed the case: verbs denoting manner of motion inherently involve a lower degree of subject-affectedness than the other verbs of body motion. Since these verbs focus on the manner in which the change of location takes place, the element of change (of location) undergone by the subject is backgrounded. Therefore, most manner of motion verbs are atelic (durative) as to their inherent lexical meaning. They denote an event that is viewed as unchanging through time, without an inherent endpoint. For example, the subject of an atelic event like τρέχω may be viewed as less affected than the subject of a verb like ἱκνέοµατι, which denotes an event that focuses on the endpoint, and hence on the change of location which the subject undergoes.

The second tendency that can be observed in the table involves the verbs denoting non-translational motion (mostly verbs denoting change in body posture, e.g. κοσµίζοµαι). Verbs designating non-translational motion tend to be oppositional middles. A priori, one can assume that these verbs involve a higher degree of subject-affectedness. This may be explained by the salience of the element of change (mostly change in body posture), that is inherent in the meaning of these verbs. This salient conception of change implies an increased subject-affectedness. It must be noted, furthermore, that the middle voice inflection, of course, has the additional advantage that it enables an opposition with an active causative verb (e.g. ἵσταµαι - ἵστηµι). This factor alone, however, is not sufficient means to explain why the non-translational motion verbs show a tendency to be middles.

The two tendencies discussed above can be considered as manifestations of a semantic scale within the class of motion verbs.

(59) Motion verbs: Scale of Subject-affectedness:

<table>
<thead>
<tr>
<th>LOW Subject-affectedness</th>
<th>HIGH Subject-affectedness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manner of Motion &lt; Neutral Translational Motion &lt; Non-Translational Motion</td>
<td></td>
</tr>
</tbody>
</table>

414 Clear exceptions are verbs of 'jumping': ἀλλοµατι, θρέψκα, and πηδάω (see section 5.1.4).

415 There is some evidence from other languages that telicity in the domain of body motion is connected to middle marking. For example, French s’en voler 'fly away' focuses on the fact that the flying entity departs from its initial stationary position, whereas voler refers to the fact of flying without specific reference to a change of state, nor to the beginning or endpoint (Kemmer 1993: 157). Klaiman (1991: 58) makes a similar observation in relation to Fula, a Niger-Congo language with a middle voice system. Atelic verbs of physical motion are active tantum, e.g. war- ‘come’, yah- ‘walk’, dill- ‘go’, dogg- ‘run’, whereas telic verbs are media tantum, e.g. yott- ‘arrive’, ma’y’y- ‘climb, mount’.

416 The telic Aktionsart of ἱκνέοµατι is also reflected in its morphology: the unmarked formation is found in the aorist stem (ἱκ-οµην), whereas the present stem is marked (ἱκ-µε-οµαι). Notice further that there are no contrastive middle verbs denoting manner of motion. This may explained thus: the active causative verbs would express that a person makes another person move in a certain manner (cf. active causative ἵστηµι means to make (mostly command) somebody stand still/up). However, in practice when a person X makes (commands) a person Y to move, the manner of this motion is generally irrelevant. Therefore, the concept of make somebody move in a certain manner is not often lexicalized (e.g. **ἀλλω ‘make jump’). Rather, this meaning is expressed by a lexical causative verb (e.g. by means of ποτίω).
At the left extreme of the scale, verbs tend to be active; at the right extreme, verbs tend to be middles. The manner-neutral translational verbs located in between do not exhibit a preference for either of the voices.

Although in this section we are not dealing with a pair of verbs, but with a whole class of semantically related verbs, it is interesting to see whether one of the scenarios applies to the distribution of the active and middle voice within the class of verbs of motion. It appears that scenario (ii) accounts for the distributional pattern best. That is to say, all verbs of motion - actives and middles alike - inherently involve a degree of subject-affectedness: in all cases, the subject changes location or body posture. However, the function of the middle voice marking is to emphasize the element of subject-affectedness. In sum, although both active τρέχω and middle καθίζω involve, to a certain degree, subject-affectedness, the middle ending of the latter makes the element of subject-affectedness more salient as compared to τρέχω.

5.3 Conclusion

In a number of semantic studies on (near-)synonymous active and middle pairs, we have seen that very often one can discern a semantic distinction between active and middle near-synonymous verbs, namely in the cases of ὄρμω - ὄρμαται, πειράω - πειράματι, βούλομαι - ἔθελω. In these cases, the lexical semantics of the active and middle verb alike involve, to some extent, an element of subject-affectedness. The middle ending makes this inherent element conceptually more salient, whereas the active ending - being neutral as to subject-affectedness - does not contribute to the meaning of the verb (scenario (ii)). In two other cases, πολιτεύω - πολιτεύομαι and ἄλλομαι - πιθάω, I argued that there is no discernable semantic distinction. In these cases, too, the lexical meaning of both the active and the middle verb involves an inherent element of subject-affectedness. The middle voice redundantly codes this inherent subject-affectedness (scenario (iii)).
CHAPTER 6

General Conclusion

In this dissertation, an analysis was given of the meaning of the middle voice in Ancient Greek. In section 1.1, I have argued that the notion of prototypical transitivity is crucial to an understanding of the semantics of the middle voice. The notion of prototypical transitive event was described with reference to Langacker’s Billiard-ball Model. The prototypical transitive event is coded by the unmarked active voice. I have argued that the middle voice can be defined as a marked coding of a departure from the prototypical transitive event. Contrary to the prototypical transitive, the middle voice codes that the subject is affected by the event. In other words, the subject, in some way or other, undergoes an effect of the event. That the middle voice is marked can be shown by means of a number of markedness-criteria. These criteria pertain to aspects of phonological and morphological structure, distributional behaviour, and frequency. It was argued that, in Ancient Greek, the middle voice is the marked member in a privative opposition with the active voice. In sum, the middle voice expresses the presence of the semantic property of subject-affectedness. The active voice, on the other hand, is neutral with respect to subject-affectedness. In section 1.2, it was argued that the middle voice can be analyzed insightfully within the framework of Langacker's Complex Network Category Model. Essential notions of this model are abstract schema, elaboration, prototype, and extension. Following this model, the middle voice can be described as a complex, polysemous network of interrelated middle uses. The semantic property of subject-affectedness can be considered the abstract schema of the Ancient Greek middle voice. The various middle uses can be seen as elaborations of this schema. The structure of the semantic relations among the various middle uses can be shown in a semantic map. This semantic map, in turn, can serve as a basis for two predictions: (I) A form will always cover a connected region of variant middle uses in the semantic network, and (II) a form will only spread from one variant use to another if these uses are directly semantically related. Next, I discussed Kemmer's typological study The Middle Voice. A number of central notions in her book, such as semantic map, Initiator and Endpoint, and relative distinguishability of participants were shown to be relevant to the Ancient Greek middle voice. The middle voice in Ancient Greek can be said to mark that the subject is the Endpoint of the event. Two general issues concerning the middle voice were addressed in section 1.3. Firstly, it was argued that the media tantum (middle-only verbs) should be integrated into the polysemous structure of the middle voice. Secondly, I put forward a number of objections against the valency reduction approach to the function of the middle voice.

In chapter 2, the various middle uses and the relations among these middle uses were analyzed in detail. Eleven middle uses were distinguished: passive middle, spontaneous process middle, mental process middle, body motion middle, collective motion middle, reciprocal middle, direct reflexive middle, perception middle, mental activity middle, speech act middle, and indirect reflexive middle. This semantic analysis resulted in a semantic map of the middle voice in Ancient Greek. This map depicts the network that consists of the different middle uses and the semantic relations among them. Finally, it
was argued that the mental process middle can be considered the *category prototype*. The body motion middle, spontaneous process middle, and indirect reflexive middle can be viewed as secondary prototypes.

Chapter 3 deals with the middle and passive forms in the aorist stem. In section 3.1, I have argued that the distribution of the two variant passive forms in -η- and -θη- can be explained by a number of morphological rules, and a number of additional semantic rules. Subsequently, I have tried to account for each of the verbs that possess both passive aorist formations. In section 3.2, the distribution of the sigmatic middle aorist and the passive aorist was discussed. It can be observed that the sigmatic middle aorist and the passive aorist cover a connected region of middle uses in the semantic network (cf. prediction (I) above). It was argued that, in Homer, the occurrence of sigmatic middle aorists designating mental processes, body motion, and collective motion is a relic of an earlier language stage, preserved as metrical alternatives to the passive aorist forms. In this earlier stage of the language the passive aorist form in -θη- was only used with passive and spontaneous process meaning. The passive aorist in -θη-, subsequently, extended to the mental process meaning, the body motion meaning, and the collective motion meaning. In Classical Greek, the passive aorist formation is still expanding, albeit in a more sporadic fashion. It was shown that, in Classical Greek, the passive formation sporadically extends to verbs of perception, verbs of speech, verbs of mental activities, and reciprocal verbs. It can be observed that, throughout the history of Greek, the passive aorist form always spreads through the semantic network from one related use to another (cf. prediction (II) above). In section 3.3, I proposed a definition of the abstract meaning of the passive aorist and the sigmatic middle aorist formations. I claimed that the passive aorist marks that the subject is, or is at least similar to, a prototypical patient. By contrast, the subject of the sigmatic middle aorist is similar to a prototypical agent. Finally, I made an attempt to account for the fact that there is a distinct passive form in the aorist stem, as opposed to the present stem. This phenomenon was explained by the relation between the completedness of the event and the degree of affectedness of the subject.

In chapter 4, the middle and passive voices in the future stem were analyzed. I argued, reviving a theory of Friedrich Blass, that middle φιλονομάει and passive φιλονομάει express different aspects. Φιλονομάει expresses a 'presentic' (imperfective) aspect, whereas φιλονομάει expresses an 'aoristic' (perfective aspect). This semantic contrast may also be relevant to other middle and passive future forms. There are also verbs, however, that do not have this aspectual distinction. Of these verbs, the middle future form simply has a middle meaning, and the passive future a passive meaning.

Chapter 5 was devoted to the issue of 'synonymous' active and middle verbs. Three possible scenarios were sketched that may be applicable to each of the individual active-middle pairs. Subsequently, five case-studies of 'synonymous' active-middle pairs were presented. Of each of these pairs, I have tried to determine whether the distributions of the active and the middle verb in question could be explained by a semantic distinction, or by other factors, such as diachrony, genre, and register. In the last section of this chapter, I have tried to account for the occurrence of active and middle verbs in the class of motion verbs. I argued that a tendency can be detected for manner of motion verbs to be active, and for non-translational motion verbs and change in body posture verbs to be middle. These tendencies were explained by differences in the degree of affectedness of the subjects.
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Samenvatting

In dit proefschrift heb ik getracht een beschrijving te maken van de betekenis van de grammaticale categorie het medium in het Oud-Grieks. De drie cruciale vragen die aan het onderzoek ten grondslag liggen zijn de volgende: (I) Is er een semantisch element aanwijsbaar dat alle mediale gebruikswijzen gemeen hebben? (II) Op welke wijze zijn de verschillende gebruikswijzen van het medium aan elkaar gerelateerd? (III) Op welke wijze kunnen de verschillen in aoristusformatie (i.e. mediale en passieve aoristus) verklaard worden?

In paragraaf 1.1 betoog ik dat het begrip prototypische transitiviteit van eminent belang is voor de semantiek van het medium. Het begrip prototypische transitiviteit beschrijft ik in het kader van het Billiard-ball Model van Langacker. De prototypische transitieve gebeurtenis (Eng. event) wordt uitgedrukt door de ongemarkeerde actieve vorm. Het medium is een gemaakte vorm die uitdrukt dat er sprake is van een afwijking van de prototypische transitieve gebeurtenis. In afwijking van de prototypische transitieve gebeurtenis drukt het gemaakte medium uit dat het subject van de zin ‘aangedaan’ (Eng. ‘affected’) is als gevolg van de gebeurtenis. Dit wil zeggen dat het subject op een of andere wijze een effect ondergaat van de gebeurtenis. De gemarkeerdheid van het medium kan aan de hand van een aantal criteria worden aangetoond. Deze criteria hebben betrekking op fonologische en morfologische eigenschappen, op de distributie en op de frequentie van de mediale vorm. Het medium kan worden beschouwd als het gemaakte lid in een privative oppositie met het activum. De mediale vorm drukt de aanwezigheid van subjectsaffectie (subject-affectedness) uit. De actieve vorm is neutraal ten aanzien van subjectsaffectie.

In paragraaf 1.2 wordt betoogd dat het Griekse medium zich adequaat laat beschrijven aan de hand van het Complex Network Category Model van Langacker. Belangrijke begrippen in dit theoretische model zijn abstract schema, uitwerking (elaboration), prototype en uitbreiding (extension). Aan de hand van Langackers model kan de grammaticale categorie medium beschreven worden als een complex, polysemisch netwerk van gebruikswijzen. Het betekeniselement subjectsaffectie vormt het abstracte schema van de categorie. De verschillende gebruikswijzen vormen de uitwerkingen van dit abstracte schema. De structuur van de semantische verwantschappen tussen de mediale gebruikswijzen kan worden weergegeven in een semantische 'landkaart' (semantic map). Op basis van deze 'landkaart' kunnen twee voorspellingen worden gedaan: (I) een gegeven vorm bestrijkt altijd een aaneengesloten gebied, bestaande uit aan elkaar verwante gebruikswijzen, in het semantische netwerk; (II) een gegeven vorm verspreid zich alleen van de ene betekenis naar de andere, indien beide betekenissen aan elkaar verwant zijn.

Hierna volgt een bespreking van de belangwekkende typologische studie The Middle Voice (1994) van Kemmer. Een aantal centrale begrippen in haar boek blijken relevant te zijn voor het medium in het Oud-Grieks. Hierbij kan worden gedacht aan de semantische 'landkaart', de Initiator en Endpoint, en relative distinguishability of participants. Met het laatste wordt bedoeld de graad waarin de verschillende participants in de gebeurtenis van elkaar kunnen worden onderscheiden. Met behulp van het begrip Endpoint kan de betekenis van het medium in het Oud-Grieks op een andere wijze dan in
termen van subjectsaffectie geformuleerd worden: het Oud-Griekse medium markeert dat het subject van de zin het *Endpoint* van de gebeurtenis is.

Vervolgens stel ik in paragraaf 1.3 twee belangrijke onderwerpen van algemene aard aan de orde. Allereerst betoog ik dat de *media tantum* dienen te worden geïntegreerd in de polysemische structuur van het medium. Vervolgens breng ik een aantal bezwaren naar voren tegen de opvatting dat de functie van het medium te verklaren is aan de hand van valentie-reductie.

In hoofdstuk 2 worden de onderscheiden mediale gebruikswijzen en hun onderlinge verwantschappen uitgebreider beschreven. Ik onderscheid elf verschillende gebruikswijzen: het passieve medium (passive middle), het medium van spontane processen (spontaneous process middle), van mentale processen (mental process middle), het van lichaamsbeweging (body motion middle), van collectieve beweging (collective motion middle), het reciproke medium (reciprocal middle), het direct reflexieve medium (direct reflexive middle), het medium van perceptie (perception middle), van mentale activiteiten (mental activity middle), van taaluitingen (speech act middle) en het indirect reflexieve medium (indirect reflexive middle). Deze semantische analyse resulteert in een semantische ‘landkaart’ van het Oud-Griekse medium, volgens de principes uiteengezet in paragraaf 1.2. Deze ‘landkaart’ geeft het netwerk weer dat bestaat uit de onderscheiden mediale gebruikswijzen en hun onderlinge verwantschappen. Als laatste punt in dit hoofdstuk betoog ik dat het medium van mentale processen als het prototype van de categorie kan worden beschouwd. Het medium van lichaamsbewegingen, van spontane processen en het indirect reflexieve medium zijn prototypes van secundaire aard.

In hoofdstuk 3 komen de mediale en passieve aoristusformaties aan de orde. In 3.1 wordt de distributie van de twee passieve aoristusvarianten -η- en -θή- verklaard aan de hand van een aantal morfologische regels, aangevuld met een aantal semantische regels. Verder behandel ik de afzonderlijke werkoorden die beide aoristusvarianten hebben. Paragraaf 3.2 heeft betrekking op de distributie van de sigmatische mediale aoristus en de passieve aoristusvorm. Vastgesteld kan worden dat de sigmatische mediale aoristus en de passieve aoristusvorm een aaneengesloten gebied van gebruikswijzen beslaan in het semantische netwerk (vgl. voorspelling (I) hierboven). Voorts betoog ik dat het voorkomen van de sigmatische mediale aoristus bij mentale processen, lichaamsbewegingen en collectieve bewegingen in Homerus een relict is van een ouder taalstadium. Deze relictten zijn bewaar gebleven in de taal van Homerus als metrische alternatieven voor de passieve aoristusvormen. In het oudere taalstadium werd de passieve aoristus alleen gebruikt in de spontane proces-betekenis en de passieve betekenis. Vervolgens heeft de passieve vorm zich uitgebreid naar mental processen, lichaamsbewegingen en collectieve bewegingen. In het Klassieke Grieks breidt de passieve vorm zich sporadisch nog steeds uit: naar verba van perception, van spreken, van mentale activiteit en reciproke verba. We kunnen vaststellen dat de passieve aoristusvorm zich door de geschiedenis van het Grieks heen altijd van de ene betekenis naar een verwante andere heeft uitgebreid (vgl. voorspelling (II)). In 3.3 stel ik voor de definitie van de abstracte betekenis van de passieve aoristusvorm als volgt te formuleren: de passieve aoristusvorm markeert dat het zinsubject een prototypische patiens is, dan wel één of meer saillante eigenschappen met de prototypische patiens gemeen heeft. Het subject van de sigmatische aoristus daarentegen lijkt op een prototypische agens. Tot slot doe ik een poging om te verklaren waarom er, in tegenstelling tot de praesensstam, juist in de aoristustam een aparte passieve vorm bestaat. Dit verschijnsel verklaar ik door een relatie aan te nemen tussen de afgeslotenheid van de gebeurtenis de graad van affectie van het subject.
In hoofdstuk 4 stel ik dat het mediale futurum φανήσωμαι en het passieve futurum φανήσωσι ια een aspectdistinctie uitdrukken. Daarbij bouw ik voort op een theorie van Friedrich Blass. Φανήσωμαι drukt een ‘praesentisch’ (imperfectief) aspect uit; φανήσωσι ια daarentegen drukt een ‘aoristisch’ (perfectief) aspect uit. Het is mogelijk dat een dergelijke distinctie ook bij andere mediale en passieve futurumvormen bestaat. Er bestaan echter ook werkwoorden waarbij aspect geen rol lijkt te spelen. Bij deze werkwoorden heeft de mediale vorm een mediale betekenis en de passieve futurum vorm een passieve betekenis.

Hoofdstuk 5 snijdt het probleem aan van de ‘synonieme’ actieve en mediale werkwoorden. Ik schets drie verschillende scenario’s die van toepassing kunnen zijn op elk van de afzonderlijke activum-medium-paren. Vervolgens presenteert ik vijf case studies van saillante activum-medium-paren. In elk van deze vijf gevallen probeer ik vast te stellen of de distributie van het actieve en het mediale verbum kan worden verklaard door een semantisch onderscheid of door andere factoren zoals diachronie, genre en stijlregister. Tot slot wend ik mij tot de actieve en mediale werkwoorden van beweging. Ik laat zien dat er een tendentie is dat werkwoorden die de wijze van voortbeweging uitdrukken, meestal actief zijn en dat werkwoorden die een verandering van lichaamshouding aanduiden, meestal mediaal zijn. Dit verschil verklaar door aan te nemen dat er bij werkwoorden die een wijze van voortbewegen uitdrukken, sprake is van een relatief lage graad van subjectaffectie, terwijl de er bij de werkwoorden die een verandering van lichaamshouding uitdrukken een relatief hoge graad van subjectaffectie is.
X. De uitleg bij de Oude Griekse tekst is alleen bij de moderne woorden en wissels van woorden gebeurd.

XI. Oude Griekse woorden hebben nu geen geheugen bij de moderne woorden.

XII. Oude Griekse woorden hebben nu geen geheugen bij de moderne woorden.