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The Middle Voice in Ancient Greek. A study in Polysemy

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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:

<table>
<thead>
<tr>
<th>Passive</th>
<th>E.g. ἔβλαφοθήσαν 'was hindered, harmed', ῥεχθέν 'been done'</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous process</td>
<td>ἀυστάθησαν 'disappeared', ἡξηράνθη 'dried up', ἱύνθη 'became warm'</td>
</tr>
<tr>
<td>Mental process</td>
<td>χολόθη 'became angry', μνημήθαν 'have remembered'</td>
</tr>
<tr>
<td>Collective motion</td>
<td>ἀγίρθη 'gathered (intr.)', ἀολλισσάθησαν 'gathered (intr.)', μίχθη 'mingled'</td>
</tr>
<tr>
<td>Body motion</td>
<td>ἐκκινήθην 'moved', εὐνήθην 'went to bed', ἐστάθη 'stood up', ὀρμήθη 'set off'</td>
</tr>
</tbody>
</table>

The passive aorist in -η- occurs in the following meanings:

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218 For an inventory of the attested forms in Homer, as well as in a number of classical authors, I refer to Prévot (1934). The strange form δηρινήθην (Π 756) is often interpreted as a passive aorist of δηρίσματ (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 δηρήν θήτην (see Kirk e.a. 1985-93).

219 With regard to Homer, only actually attested forms are cited.

220 Two instances in Homer: (i) πορφύρας δ' άρα κύμα περιστάθη, οὐρεί ἰσον (λ 243) ('And the dark wave stood about them like a mountain'); (ii) δ' δ' ἐστάθη ἧτα πέτρα ἐμπεδον (ρ 463) ('But he stood firm as a rock'). Ruijgh suggests that σταθε- contains the extended root σταθ-. This root is also found in σταθ-ερός 'stable (adj.)' and σταθ-μός '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 σταθ-θη-. (see Ruijgh 1996: 187n75).

221 The attested forms are collected in Risch (1937: 220-1), and Van de Laar (2000: 413-5).
<table>
<thead>
<tr>
<th>Passive</th>
<th>E.g. πλήγη ‘was hit’, ἐτύπη ‘was hit’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous process</td>
<td>ἐπάγη ‘got stuck’, τράφη ‘grew up (intr.)’²²², φάνη ‘appeared’²²³</td>
</tr>
<tr>
<td>Mental process</td>
<td>ἐδόθη ‘learned’, ἐτάρση ‘enjoyed’, ἐχάρη ‘rejoiced’</td>
</tr>
<tr>
<td>Collective motion</td>
<td>ἐάλη²²⁴ ‘thronged together’, τμήσην ‘parted’²²⁵, ἐμίγην ‘mingled’²²⁶</td>
</tr>
<tr>
<td>Body Motion</td>
<td>ἐάλη²²⁷ ‘crouched’</td>
</tr>
</tbody>
</table>

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-.²²⁸ To get an idea of the different distributions of the two forms, it is useful to consider first the following tables.

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²²² Τραφή: probably replaced the older intransitive thematic aorist ἔτραφον.

²²³ Possibly also λίπεν (v.l. Π 507) and διατριψέν (Γ 363). Ruiggh (2000: 346) suggests that the anomalous aorist βδύνει may belong to this group: βδο- < *gʰiyθ- < *gʰihγ-θ-. 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 ἐσβή ‘was quenched, went out’, originally a root aorist (*sgʷes-t, see Risch 1937: 209), was felt to be a passive aorist form given its spontaneous process meaning.

²²⁴ From ἑλλων ἐιλέω, e.g. κέλεις κατὰ ἄστυ ἐλήμεναι οὕτως ἒντος (Ξ 286) (‘you ask us to go back and throng together inside the city’), see also ἩγΕ, s.v. ἐιλέω (11a).

²²⁵ E.g., τὸ γ’ ὡς βουλεύσαντες διέτμεγεν (A 531) (‘When the two had taken counsel in this way, they parted’).

²²⁶ E.g., ὡς τὰ πρῶτ’ ἐμίγησαν ἐν Ἡπαίστοιοι δόμοισι (Θ 268) (‘how first they layed together [lit. mingled] in the house of Hephaestus’).

²²⁷ Ἐάλη (ἑλλω) is the only example that I am aware of. The verb ἐάλη sometimes denotes a volitional action ‘contract one’s body, draw oneself together’, e.g. ὡς εἰπὼν ‘Ἀγιλῆσα ἀλέξεις μένεν (Φ 571) (‘so saying he crouched to await Achilles’), cf. also Ν 408, Π 403, Υ 168, Υ 278, Χ 308 = ω 538. However, the more frequent meaning of ἐάλη (and ἑλλόμαι) is ‘throng together’ (collective motion).

²²⁸ Prévoit (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)” (Prévoit 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></th>
<th>θη</th>
<th>η</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>Spontaneous process</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Mental process</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Collective motion</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Body motion</td>
<td>21</td>
<td>0</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></th>
<th>θη</th>
<th>η</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysyllabic stem</td>
<td>41</td>
<td>0</td>
</tr>
<tr>
<td>Stem in vowel</td>
<td>31</td>
<td>2</td>
</tr>
<tr>
<td>Stem in -σ</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Heavy monosyllabic stem</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>η-vocalism</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Stems (C)CαC-, (C)CIC-, (C)CυC-</td>
<td>7</td>
<td>24</td>
</tr>
</tbody>
</table>

I have taken a sample of 100 tokens of aorist forms in -η- and -θη-, 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. 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. 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

229 With the term heavy is meant a syllable structure /C/CVC/ or /C/CVCC/.

230 From the first 4 books of the Iliad the first three occurring passive aorists were taken, from the remaining books of the Iliad and Odyssey the first two occurring forms were taken.

231 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, κινη-θη has a stem which ends in a vowel, and which is polysyllabic.

232 For example, the form ἐ-τά-θην has a passive stem allomorph τα-. Neither the form of the present stem τειν-, nor the root τειν- 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. θωρηκθήνατ, πημάνηθη.  
(ii) **stems in a vowel** (31 : 2), e.g. δημήθετα, ταθείς.  
(iii) **stems in -σ-** (9 : 1), e.g. νάσθη, δαμάσθην.

The features **heavy monosyllabic stem** (e.g. πλάγχθη, χρίμφθη, πήθθεν), 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. ἔρεθείς, θέλθη. 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 θερεά (subjunctive), τερσίμενα, τάρημαν, and πλήγη. Apart from πλήγη (to be discussed below), these exceptions can be explained easily by assuming an analogy with their present stems θέρημα, τέρσομαι and τέρπομαι. The original forms with zero-grade must have been *θαρ-η-*, *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, πήθθεν;  
(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 πημα. 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, ἐδόθη, ἐκάθη and ῥώθη, can be explained historically. The former two originally had a consonant (*δη-θ-η- and *καθ-η-), the latter probably had a phonetic glide (*στρ-ε-). Incidentally, I would like to refer to a form μιξ 'be defiled', a 3rd sg. subj. passive aorist, occurring in a Cyreenean inscription (see Buck 1955: 311). It could be an old form (*μηθ-εθ-, μια-), of which the original meaning may have been *'become stained' (i.e. a spontaneous process). The form that is found elsewhere is ἐμιάνθην.

235 The one form with stem in -σ- 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 -σ- include the verbs with roots in dentals (e.g. ἔφρασθη), and the presents in -δζω, -ιζω. A number of forms, such as δαμά-σ-θην, has an analogically inserted -σ-.

236 Clearly a secondary form, analogically after πήγνυμι, ἐπηγξα and πηκτός. Incidentally, πήγνυμι and πηκτός, in their turn, are probably influenced by their antonyms βήγνυμι and βηκτός (both regularly from zero degree *wrh,g-). Regular forms would be *πάγνυμι and πακτός (preserved in πακτώ).
As to the stem with a phonological structure \((C)\tilde{\alpha}C\), \((C)\tilde{\alpha}C\), \((C)\tilde{\alpha}C\), 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

\[(vi) \text{ stems of the structure } (C)\tilde{\alpha}l- 
(C)\tilde{\alpha}m-, \text{ and } (C)\tilde{\alpha}p-.\]

Although in Homer only the forms \(\tilde{\alpha}\lambda\\tilde{\alpha}n\), \(\tilde{\alpha}\mu\\tilde{\alpha}n\) and \(\tilde{\alpha}\rho\\tilde{\alpha}n\) occur, there is no evidence against this rule. In Classical Greek, this rule is also operative (see below).

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 \((C)\tilde{\alpha}C\), \((C)\tilde{\alpha}C\), and \((C)\tilde{\alpha}C\). 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 \(-\eta\);
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. ἑφάνη, ἑπάνη (see next section).

239 Εχάρη has two alternative forms with, apparently, the same meaning, κεχάριντο and χηραίο. The former may well be old; the latter is either analogically formed to present χαίρω (cf. ἑκάθηρα to καθαίρω), or - more speculatively - a Mycenaean relic (cf. Arc. φθήρω vs. Ion. φθείρω). The regular Ionic form should have been Χέραρσατο or χειραρσατο.

240 An apparent exception is ἀρθεί (from ἀραρίσκο). However, there may have been a rule that stems with the structure #YC- receive the suffix \(-\theta\eta\). In Classical Greek, there are more examples that corroborate this rule (see below). Ἀρθείς from αἰρε ref. probably has a long vowel (< *ἀρέφ-).

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 ἔδαλη). There is some controversy as to the meaning of the suffix \(-\theta\eta\), \(-\theta\eta\), \(-\theta\eta\), in PIE. Was it static 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 static meaning found in the daughter-languages (e.g. Latin rub-e-re 'be red') go back to a yod-present in \(*-(e)h\_\tilde{\alpha}l\_\tilde{\alpha}l\_\text{-yel\theta}-\) that is derived from the aorist in \(-\theta\eta\). Ruijgh explains the suffix \(-\eta\) from a complex suffix \(*\eta\text{-s}\) (cf. the Hittite fientive formation in \(-\tilde{\alpha}l\_\text{-yel\theta}\)), of which the \(-\text{s}\) can be identified as the aorist suffix. The combination \(*\eta\text{-s}\) designated the transition to a state. The \(-\text{s}\) disappeared after the reinterpretation of 2\text{-sg.} forms like πάγης (< *παγ-\eta\text{-s}) as παγ-\eta\text{-s}. This led, in turn, to the replacement of 3\text{-sg.} forms like πάγης (< *παγ-\eta\text{-t}) by πάγη (see Ruijgh 1996: 187-9, 366-7). A comparable development is found in 3\text{-sg.} σβήν, which, according to Risch (1937: 209), must go back to *sg\'es\text{-t}.
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 -απ-. The spontaneous process verbs have -αγ-η- (έδαγ-, επάγ-, -ραγ), whereas the one form with passive meaning has the suffix -θη-: φροσθείς (άγθη- from άγω not attested in Homer). Likewise, the form σαπ-η-designates a spontaneous process, while τασφ-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. χολόθη [stem in vowel], μηθήνατ [stem in -σ-], and εξάρη [stem in -απ-]. The two forms that cannot be explained by these morphological rules, ἐδάνη and ταρπημένον, 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 τμάγνη '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 -

<table>
<thead>
<tr>
<th>Spontaneous Process</th>
<th>Passive</th>
<th>Body Motion</th>
</tr>
</thead>
<tbody>
<tr>
<td>ἐδάγνη 'broke (intr.)'</td>
<td>φροσθείς (φράσσω) 'be fenced'</td>
<td>κλίνθη 'bent aside'</td>
</tr>
<tr>
<td>ἐπάγνη 'got stuck'</td>
<td>ἐτύχθη 'be done'</td>
<td>τράφη (τρέπω) 'turned (intr.)'</td>
</tr>
<tr>
<td>-ραγ</td>
<td>δρύφθη 'be scratched'</td>
<td></td>
</tr>
<tr>
<td>ἐκάγα 'burnt (intr.)'</td>
<td>κρίνθη 'be chosen'</td>
<td></td>
</tr>
<tr>
<td>ἐπάγα 'flew'</td>
<td>κρύφθη 'be hidden'</td>
<td></td>
</tr>
<tr>
<td>σαπημα 'rotted'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>τράφη 'grew up'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>φάνη 'appeared'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

242 The form -ραγ-η- (ρήγνυμι) must have been adapted by analogy with (φ)δαγ-η- (φάγνυμι). The regular development would have been *(f)ηηγ-η- from *(w)ρηγ-η-.

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 *δαγ-η- and *τραμ-η-. Alternative middle forms to these passive formations exist, apparently with the same meaning (at least, a semantic nuance is not distinguishable): δεδαέθα (with active causative δεδαέ) δερνόμεθα, τετραπό- μεθα, τετράκεμον. 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-ēh₄ ('see'; hence ‘have in mind, know’) that can be reconstructed on the basis of Lat. videre ‘see’, OCS. vidēti ‘see’, and perhaps Greek ἱδεμεν < *η-είδ-ε-μεν < *-wid-η- (Ruijgh 1996: 194). Another very old formation might be PIE *mn-ēh₄ as in ἔμδην ‘raged’ (not attested in Homer), and OCS. 3 pl. minē-že ‘they believed’ (see Rix e.a. 1998).

244 The form ἐκάη 'thronged together' cannot be used as evidence here, since it falls under the morphological rule (mentioned above) that stems in -αλα- take the form in -η-.
that have a passive meaning, and do not fall under the morphological rules (i-vi): ἐβλαβήν, ἐτύπη, πλήγη, ἄναβροχέν. For these cases, I would like to give a tentative explanation. The passive forms ἐβλαβη, ἐτύπη and πλήγη may have been formed by analogy with verbs expressing violent, destructive events such as -ράγη, διατρυφέν, ἔδομη (cf. also post-Homeric 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 *πλαγ-η- (< *πλαγ-η-) was influenced by the verbs with aorist stems in -άγ-, e.g. ἤσγ-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 ἐκπλαγήναι and ἐκπλαγήναι (only E. Tr. 183) occur, used in the special meaning ‘to be stricken with terror’.

There are two variant forms: βλαβη- and βλαφθη-. 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) αὐτοῦ αὐτοῦ ἐβλαβεῖν ἐν πεδίῳ, αὐτοῖς ἔφερτε αὐτοῖς ἡσυχα (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>Spontaneous Process Mental 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>
</tr>
<tr>
<td>Stem in vowel</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stem in -σ-</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Heavy monosyllabic stem</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>ε-vocalism</td>
<td>θη</td>
<td>θη</td>
</tr>
<tr>
<td>Stems (C)Cαλ-, (C)Cαμ-, (C)Cαρ-</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>
</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.\(^\text{246}\)

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

<table>
<thead>
<tr>
<th>Passive</th>
<th>θη</th>
<th>η</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous Process</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>Mental Process</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Body Motion</td>
<td>6</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).

\(^{246}\) 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 #(^V)C-</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Stems (C)CαC-, (C)CîtC-, (C)CôC-</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)CîtC-, (C)CôC- 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), ἐδόμην\(^{250}\) (δάμνημι), ἐδάρην (δέρω), ἐκάρην\(^{251}\) (κείρω), ἐπάρην (πείρω), ἐσπάρην (σπείρω), ἐφθάρην (φθείρω).

\(^{247}\) E.g., ἀνείξθην, ἐλήφθην/έλαμφθην, and the novel form ἐτήχθην (Eur., Pl.), formed under influence of the present and the active aorist forms. The form ἐκλήγην is the only exception.

\(^{248}\) E.g., ἐθρέφθην (τρέψω), ἐπλέχθην (πλέκω), ἐστρέφθην (στρέψω), ἐτρέφθην (τρέχω). There are a few exceptions: ἐλέγην (from λέγω 'gather'), ἐστέρην, ἤγγέλην (E. IT 932). These forms are, however, less common than the variant forms in -θη-, ἐλέχθην, ἐστερήθην, ἤγγέλθην. Ἐλέγην and ἤγγέλην 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 ἔπταρον ‘sneezed’ (πτάρνυμαι) by the aorist in -η- ἔπτάρην (Arist. Pr. 887\(^3\)35, Hippocr.)

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

\(^{251}\) The form κερβείς (with -ε- from κείρω, ἐκείρα or older ἐκερσα) is found at Pi. 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></th>
<th>Spontaneous Process Mental 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>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)Cαπ-</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. 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-. Here follows an inventory of the verbs that display morphological variation.

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262 In other words, variant forms such as ἐστρέφθην vs. ἐστράφην 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 Prévoit (1934: 24 [Homer/Herodotus], 45-6 [drama], 63 [Plato]).
• ἀπηλλάγην vs. ἀπηλλάξθην (ἀπαλλάττω). Since these forms have polysyllabic stems, and 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 -σή- show morphological variation, for example, ἀπηλλάγην, ἐμάγην (only in Plato), ἐσφάγην, and ἐτάγην (once in the comic Phrynickus. The regular form is ἐτάχθην). Outside Attic we find forms in -ωθη-. Thus, ἀπηλλάξθην is the commonest form in Herodotus (Did he take ἀπηλλαγη- ναι (8.84.1) and ἀπαλλαγήσεσθαι (2.120.3), from Attic?); ἐσφάξθην is found in Herodotus, Pindar, and Euripides (once, at IT 177 [lyr.]).

• ἐβάφην vs. ἐβάφθην (βάπτω). According to the rule stating that stems in -αφ- take a passive in -η-, ἐβάφην 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.

• ἐζύγην vs. ἐζεύχθην (ζεύγυμ). 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 ἐζεύχθην is of a higher register (cf. Lautenschach 1911: 255). Ἐζύγην was probably formed by analogy with μείγμοι: ἐμείχθην: ἐμίζην = ζεύγυμ: ἐζεύχθην: X (= ἐζύγην).

• ἐθλίβην vs. ἐθλίφθην (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 ἐτρίβην: ἐτρίφθην, which is both phonologically and semantically similar.265

• ἐκάνη 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(γ)θῆν (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 ἐκλί(γ)θην occurs. The more recent variant is possibly formed by analogy with forms like ἐφήνα: ἐφάνην = ἐκλίνα: X (= ἐκλίνην).

• ἐκόπην vs. ἐκόφθην (κόπτω). The passive meaning favours the latter form. Ἐκόφθην however, is post-Classical. Ἐκόπην may have been created by analogy with the synonymous forms ἐπλήθην and ἐτύπην (see section 3.1.1). Furthermore,

265 In the same way, ἐφλίβην in Hippocrates can be explained analogically to ἐτρίβην and ἐθλίβην.
*Ἑφλίφθην is unattested.
it is possible that the rule which states that stems in -ατ- take -η (rule vii) spread incidentally to this stem in -ατ-.

• ἐκρώφην vs. ἐκρύφην266 (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 ἐκρώφην is possibly due to an analogy with the verbs with passive aorist stems in -αφ-, e.g. ἁπάτω : 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 ἀπηλλάγην 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.

• ἑρρύφην vs. ἑρρύθην (ῥύπτω). 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 ἑρρύφην, which was taken from ἑρρύθην (Duhoux 2000: 381n3), or from perfect ἑρρύθηκα (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- (rule v). This rule might also be responsible for the highly marginal aorist form ηλιφη - (only once, in Pl. Phdr. 258b; Ἡλειφθην first attested in Aeschylus). Further, an analogy with the pair ἁπάτω : 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 στερήσομαι. According to Ruijgh (1991: 119n32), this might be an old form, evolved from *strh₁-έθ₁-.

• ἑφάγην vs. ἑφάχθην (σφάξω). The former occurs in Aeschylus and Euripides. Considering the passive meaning of the forms, ἑφάχθην is to be expected. See further under the heading ἀπηλλάγην above.

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

266 'Εκρώβην 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: 60, Ruijgh 1991: 480n8), e.g. θρώμην, ἐψψγ. 

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noted that in comedy a tendency exist to use the forms in -η-. See further under ἀπηλλάγην above.

• ἔταφην 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 (‘Gras-smann’). It was probably created by analogy with ἔβαφην : ἐβάφθην, or with βλάπτω : ἐβλάφθην.

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

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

• ἰλίφην vs. ἰλείφθην (ἀλείφω), see ἔρριφην above.

• συνελέγην vs. συνελέχθην (συνλέγω). 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 ἑλέχθην, 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. ψύχω). 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.

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–
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 -θη- was contrasted with that of passives in -η-. The focus of this section concerns the distribution of the passive in -(θ)η- as compared to that of the sigmatic middle aorist. The uses of the aorist in -(θ)η- have already been discussed above. The Homeric uses of the sigmatic middle aorist are the following:

<table>
<thead>
<tr>
<th>Indirect Reflexive</th>
<th>Mental Activity</th>
<th>Speech Act</th>
<th>Perception</th>
<th>Direct Reflexive</th>
<th>Reciprocal</th>
<th>Body Motion</th>
<th>Collective Motion</th>
<th>Mental Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.g. ἐλύσαο, ἐτυμήσασθά; media tandum: ἐδέξατο, ἐκτήσατο;</td>
<td>βουλεύσατο, μήσατο, μητίσαντο;</td>
<td>μαντεύσατο, μυθήσατο, φθέγξατο;</td>
<td>γεύσασθαί, θήςατο;</td>
<td>κείρασθαί, ἀλέψατο;</td>
<td>δηρίσαντο, μαχήσατο;</td>
<td>ὄρμήσατο, κλινάμενος;</td>
<td>λέξασθαι;</td>
<td>ἀσάμψαι, ἱρασάμψαι, ἱδέασαι, ἐχολόσατο.</td>
</tr>
</tbody>
</table>

The sigmatic middle never occurs with the spontaneous middle nor with the passive meaning. 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.

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268 I know of only one example: Τρώας μὲν λέξασθαι ἐφέστιοι ὄσσοι ἐσαίν (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 (θ 35), ἐπέχατ’ ὁ Κριός (Simon, Fr. 22D) and στεφανοσάμενον (Pi. O. 7.15) are at least open to considerable doubt. K-G (1: 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 πέομαι. When referring to people the verb means ‘to comb’; in reference to animals, the verb means ‘to shear’. Using πέομαι instead of κείρωμαι, 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 Κριόν ὡς ἐπέχθη (Ar. Nu. 1356), Aristophanes goes even further, according to Koniaris. By saying that Κριός “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).
èxolósoato). 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 θυμόν ἀποκτομένοιο χολόθη (Δ 494)
   For his slaying was Odysseus mightily angered at heart.

b. τὸν δ' Ὀδυσσεύς ἐτάρτοιο χωλοσάμενος βάλε δουρί (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**

- ἀσασάμην - ἀδάθην 'was mistaken' (ἀώω)
- ἡδοσάτο - αἰδεσάθεν 'respected' (αἰδέομαι)
- κομίθατο - κομίθημεν 'fell asleep, went to bed'²⁷⁰ (κομίμω)
- ἐκορέσατο - κορέσθην 'was satisfied' (no present in Homer)
- ἐμνήσατο - μνησθηκαί 'remembered' (μνημήσκω)
- νεμεσισταί - νεμεσθηκαί 'became angry' (νεμεσάω)
- τερψάμενος - τερψάθη, τερφῆ, τάρψημεν, τραπεζέμεν ἐνθου (τέρπω)
- ἐχολορσάτο - χολόθη 'became angry' (χολόω)
- ὀίσατο - ὀίσθην 'thought, suspected' (ὀίομαι)
- πειρήματο - πειρήθη 'tested, tried, experienced' (πειράμαι)²⁷¹
- φράσατο - ἐφράσθης 'notice, understand' (φράζω)

**Body motion**

- ἀξίσαθαι - ἥβηθ 'darted' (ἄίσω)
- ἡρείσατο - ἡρειάθη 'leaned on' (ἐρεῖδω)
- κλινάμενος - ἐκλίνυθην 'lay down' (κλίνω)
- νοσφιξάμην - νοσφιξάθεις 'retired, left' (νοσφιξόμαι)
- ὀρμήσατο - ὀρμύθη 'set off' (ὄρμαω)
- τανυσσάμενος - τανυσθέεις 'stretched out' (τανύω)

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

²⁷¹ Admittedly, πειράμαι '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 πειράω): the subject acquires information as a result of the event.
Sui generis 272

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.

**ἐλιξάμενος** - **ἐλιξθέντων** ‘went to and fro, turned around quickly’ (**ἐλίσσω**)

(3) a. κέκλετο δὲ Τράωσσιν ἐλιξάμενος καθ’ ἀμιλον (Μ 467)
And he went about in the throng, and called to the Trojans (…).

b. οὐκέτ’ (…) οἶω οὔδ’ ἀγγελον ἀπονέσσαι  
(…) ἐλιξθέντων ὑπ’ Ἀχαιῶν (Μ 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 πτέρνυκος λάβεν ἄμφωσχύναν (Β 316)
But he coiled himself and caught her by the wing as she screamed at him.

b. στήτ’ ἐλελιθέντες, καὶ ἀμύνετε νηλεές ἤμαρ (Λ 588)
Turn around and stand, and ward off the pitiless day (...).

**τρέψαμενοι** - **τραφθήναι** ‘turned’ (**τρέπω**)

(5) a. οἱ δὲ εἰς ὀρχηστῶν τε καὶ ιμερόεσσαν ἀοίδην  
τρέψαμενοι τέρποντο (α 422 = σ 305)
But they turned to dance and heart-stirring song, and made merry.

b. εἰ δ’ ἐθέλεις τραφθήναι ἀν’ Ἐλλάδα (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: -σάσθε/ -θητε;
- 3rd sg. and pl. imperative: -σάσθω(ν)/ -θητω(ν);
- 2nd/3rd dual primary and secondary: -σάσθον, -σάσθην/ -θητον, -θητην;
- infinitive: -σάσθαι/ -θήναι.

272 See section 2.3.2, note 216.

273 Ἐλελίζω 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>-σάμην</th>
<th>-θήν</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</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 έμνησάμην/έμνησθήν, ἔπειρησάμην/ἐπειρήθην</td>
<td>3 (=11.1%)</td>
<td>24 (=88.9%)</td>
</tr>
</tbody>
</table>

The overall occurrence of sigmatic middles of the verbs that have the alternation (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 (ν and θη) 33 times.274 Of these 18 instances of sigmatic middle forms, 15 are forms of the aorists έμνησάμην (13x) and ἔπειρησάμην (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 (ἀίξασσαι X 195, Ψ 773, κοιμήσασθε 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 ὀρμηθήναι. 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 ὀρμήθηκα, 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 έμνησάμην and ἔπειρησάμην) 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, ἔτρεψαμην (τρέπω) may have had the volitional, reflexive-like meaning ‘I turned myself’, whereas

274 The forms found were: (sigmatic middle [18x]) ἀίξασσαι X 195, Ψ 773, κοιμήσασθε I 705, μνησάσθε Ζ 112, Η 371, Θ 174, Λ 287, Ω 487, 662, 734, Π 270, Π 185, Σ 299, μνησάσθαι Π 671, μνησάσθαι η 217, λ 71, πειρήσασθε Θ 18, ψ 135; (passive form [33x]) αἰδάεσθε β 65, αἰδήθην ω 97, αἰδήθην Ε 854, κλινήθην Κ 350, κλινήθην Ψ 335, κοιμήθηκα Η 427, κοιμήθηκα Μ 355, η 343, Θ 295, ξ 411, 525, μνησθήναι δ 118, νεκρήθηνε Π 544, β 64, 98, ὀρμηθήναι Ε 12, Π 530, ὀρμηθήκα Ν 559, Ε 313, Σ 282, μ 126, πειρήθηκα Κ 444, πειρήθηκα ψ 553, θ 205, πειρήθηκα Ε 220, Υ 349, Φ 225, Ψ 804, ζ 240, ἐτέρθητε ρ 174, ταραθήκα Ψ 300, τραυθήκα ο 80.

275 Cf. Herodotus: έμνησθην (e.g. 2.20.1), έμνησάμην (e.g. 7.39.1); ἔπειρηθην (1.206.2), ἔπειρησάμην (e.g. 1.84.2).
The verb ἐπιτρέφων must have been strictly passive 'I was turned'. Likewise, ἐπηρφάμην (τέρπω) might have had a reflexive-like meaning 'I amused myself', whereas ἐπάρφον was passive 'I was amused'. It is quite conceivable that the form in -η̣- designated a spontaneous event 'I became amused'. These fine semantic distinctions disappeared by the expansion of the passive form in -η̣- and -θη̣- to the body motion and mental process middle.

In Fig. 1 (on p. 110), the extensions of the aorist in -(θ)η̣- 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 -η̣- and -θη̣-) 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>E.g. ἐποιηθαμίν; (media tantum) ἡγοισάμην, ἐδεξάμην, ἐκτισάμην</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speech Act</td>
<td>(mostly media tantum) ἡτασάμην, ἐλοιδορσάμην, παρεκκελεσάμην</td>
</tr>
<tr>
<td>Perception</td>
<td>(mostly media tantum) ἐγενοσάμην, ἐθεσσάμην, ἐσχεσάμην</td>
</tr>
<tr>
<td>Mental Activity</td>
<td>(mostly media tantum) ἐβουλευσάμην, ἐλογισάμην, ἐτεχνασάμην</td>
</tr>
<tr>
<td>Reciprocal</td>
<td>(mostly media tantum) ἐμαχεισάμην, ἡγανισάμην</td>
</tr>
<tr>
<td>Direct Reflexive</td>
<td>ἐκειράμην, ἐλονοσάμην, παρεσκεινοσάμην</td>
</tr>
</tbody>
</table>

276 There is also a thematic middle form ἔτραπετο, which is probably older than ἐπηρφάμην and ἐπάρφον. The thematic aorist can be used both in a volitional meaning (body motion) (e.g. τ 389), and in non-volitional meaning, e.g. ἔτραπετ᾽ αἰχμῆ (Λ 237); πάσι βρώ σαχρά ἔτραπετο (φ 413).

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

278 The verb πειράσωμαι 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 ἐπειρῶθην, 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, πειράσσασθαι [v.ι. -σθαι] occurs in the meaning 'try', construed with an infinitive.

279 The verb ἀμπλάμασαι '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 γέρωντες δεῦρ' ἀμπλάσται ποδί (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 ἠμπλάθην. The sigmatic middle ἠμπλασάμην occurs twice only in Euripides (Hec. 1471 ἐξε., 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, ὁρμήθην, ἐκλίνηθην</td>
</tr>
<tr>
<td>Mental Process</td>
<td>ἐμνήθην, ἐφοβήθην, ἡρθην, ἐχάρην</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>ἡγέρθην, ἐμ(ε)χθην/ἐμήθην, συνελέχθην/συνελέγην</td>
</tr>
<tr>
<td>Spontaneous Process</td>
<td>ἐκαίνιθην, ἡζήθην, ἐκάγην; (media tantum) ἐγενήθην(^{280})</td>
</tr>
<tr>
<td>Passive</td>
<td>ἐκοινήθην, ἔτυκην</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, ὁρμήθην). 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 ἀναλίζομαι has both the sigmatic middle form ἀναλίσσαμην and the passive form ἀναλίσθην. 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 ἐναναλίσσαμον (Hdt. 9.15.1)  
      Having camped in Tanagra for the night, (...).
   b. (... ἐνίκα τὴν ἡμέραν ἐκέινην αὐτόῦ μείναντας τε καὶ ἀναλισθέντας,  
      ἐμτέτειπτα (... 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 νὸν μὲν καταναλίσθητε (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 ἑστασαί, 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: ἔξοδον πάροιχος δωμάτων, ὄφησεν 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 φάνηθι μοι (which at 914 was metrically possible as well). In later Greek, the passive imperative ὄφησεν is used in the Septuagint, and elsewhere (for papyri, see Mayser 1926-34, II: 122). This intransitive use of ὄφησεν + dat. is comparable to the use of γνωσθῆναι 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 ὄφησεν τῷ Ἀχαΐβ (Reg. III 18.1), the Hebrew text has the nifal-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 τῷ Κυψελίδῳ σφυρηλάτων ἐν Ὀλυμπίᾳ στάθητι (‘have yourself set up in hammered gold beside the offering of the Cypselids in Olympia’). In prose, the aorist ἑστάθην is used only with passive meaning with subjects like statues and steles. However, it is possible that Plato also hints at the agentive use of ἑστάθην (equivalent to ἑστην) 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 ἐκκυκλήθην (ι) 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 agentive 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 αὐλίζω-μαι is comparable to verbs like παρασκευάζω-μαι.

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)

ωσφορύμην 'I smelled'
έγενσάμην 'I tasted'
ἐθαρ σάμην 'I gazed at'
ήκοραςάμην 'I listened'
ἐσκενάμην 'I looked at'

Mental (cognitive) process (non-volitional):

ἐπαθόμην 'I learned/heard that'
(ἐπ)ελαθόμην 'I forgot'
δεινοθήν 'I thought, intended'
ἐμνήθην 'I remembered'
ἐφάραθην 'I observed, thought, understood'
ἐνεύσθην 'I erred, was mistaken'

There are, however, a number of isolated passive forms that denote perception. Besides the usual forms ωσφορύμην and ἔδραξον, we also find the variant forms ἔδρακην, ἔδερχθην, and ὁσφράνθην, be it sporadically.282 The passive forms ἔδρακην and ἔδερχθην 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 δέρχομαι 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 ὀράω. Formally, ἔδρακην could have been formed by analogy with the pair ἔφαξον = ἔτραφην. 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,

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

283 It is not surprising that the anomalous active aorist ἔδραξον was replaced, yet one would perhaps expect a sigmatic middle ἔδερχθην. This form, indeed, appears once, in the AP (16.166 [Evenus]), and is probably an artificial formation. An alternative form that eliminates the irregularity is middle ἔδρακόμην, which is also found only once; again in the AP (7.224 [Anon.]). The form ἔσφορησόμην is found in Aratus (an artificial creation?), and in late Greek.

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With regard to non-volitionality, ἔδρακην and ἔδερχθην (‘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. ἐφάσθην ‘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 ὀσφράνθην appears relatively late in Classical Greek, namely in Aristotle (de An. 424b4,7; Pr. 887b10). For instance,

(8) ἀπορήσεις δ’ ἄν τις εἰ πάθοι ἄν τι ὑπ’ ὀσμῆς τὸ ἀδύνατον ὀσφράνθηναι, ἢ ὑπὸ χρώματος τὸ μὴ δυνάμενον ἰδεῖν (Arist. de An. 424b4)

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 ἔδρακην/ ἔδερχθην, ὀσφράνθωμαι 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 ἔδρακην/ ἔδερχθην and ὀσφράνθην 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 ἐψυχοῦσάμην ‘I lied’ (speech act) vs. ἐψυχοῦσθην ‘I erred’. Consider also the following verbs:

Speech acts (volitional):
ἔλοιπος ὁρᾶσθην ‘I reproached’
ἡπιστεύσαμην ‘I denied, refused’
ἡττοσάμην ‘I accused’
ἡπείδομαι ‘I prayed, vowed’
ὦδυσάμην ‘I lamented’
Mental processes (non-volitional):  

- ἔλυσθην 'I got angry'
- ἔπεισθην 'I believed, obeyed'
- ἔσθην 'I enjoyed'
- ὁργίσθην 'I became angry'

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 ἐμμεμφάμην and a passive aorist ἐμμεμφήν. 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 τὰμῶ μέμψασθαι κακά (E. Hipp. 695)
Mistress, you can, to be sure, censure the troubles I have caused you, (...).

(10) Τιμής ἐμμεμφή, 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 κάνω πρὸς τᾶδ’, εἰ δέξη, 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 μοιέμαται, λοιδόρέμαται. 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 ἐμμεμφή expresses an emotion (cf. also ἤχθετο) and the genitive-complement expresses the source of her anger. The passive ἐμμεμφή can thus be compared to emotional verbs with passive aorist forms such as ὁργίζομαι.

Further examples illustrating the semantic distinction are:

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284 In Classical Greek, αἰδέσομαι has both ἡδεσάμην and ἡδέσθην - 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 ἡδέσθην. Likewise, μμήσομαι has ἐμνήσαμην and ἐμνήσθην (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 (Antiope.), 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.

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(11) (...) porēvēsebhai dievnoeítai proı̂s suvtoўs êpì tou 'Ellhνpο̂ntou, òpωc méμvηtai te tōn peri thn "Antanάdrouν ge dynmēnōν (Th. 8.109.1)
(...) he determined to go to the Hellespont and see them, that he might rebuke them for what had happened at Antandros (...)

(12) (...) ádunatósteroi de toύ kalòs eipòntos méμvassbhai λόγoν (...) (Th. 3.37.4)
(...) less competent to criticize the words of an able speaker, (...)

Observe that the final òpωc-clause in (11), and ádunatósteroi in (12) indicate volition.

(13) "Hra de méμφθειον òvnek' ou' νικά theás,
εξηνέμωσε τάμιν 'Αλεξάνδρον λέχη (E. Hel. 31)
But Hera, annoyed that she did not defeat the other goddesses, made Alexandros’ union with me as vain as the wind (...).

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).

(14) Ξέρξης de òs epó̂s ÷aúτα, méμφθεις tōn stratēgōn tīn gnṓmēn pē̂mpet tōn tinn tōs δορυφόρoν (Hdt. 7.146.2)
But when Xerxes heard of it, he got angry about the judgement of the generals, and sent some of his guards (...).

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 γνώ́μη:

(15) ei de deî méμψαμενον γνώ́mēs tās prōkēmēnās suvtoў peri tōn ᾧφανεων γνώ́mēn ἀποδέξασθαι, φράσω (…) (Hdt. 2.24.1)
If, having condemned the opinions proposed, I must now set forth what I myself think about these matters, I will show (...).

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

(16) Κροίνως de méμφθεις katá to plē̂sos to ἐωντοῦ stratētmē (hīn γάρ ὁ συμβαλλόν stratōs polλōn étasōn ἢ ὁ Κύροu), toúto méμφθεις, (…), ἀπέλαυνε eis tās Sárdiś (Hdt. 1.77.1)
Croesus was not content with the number of his force (for his army which had fought was by far smaller than that of Cyrus); therefore, (…), he marched away to Sardis (...).

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

(17) (…), καὶ μιν méμφθεισάν τι τῷ πατρὶ δούναι ἐωντην τῷ Δί (Hdt. 4.180.5)
(…) and being for some cause wroth with her father, she gave herself to Zeus (...).
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'
ἐδειθην 'I asked, begged'
ἐλοινορήθην 'I reproached'
ἐμνήθην 'I mentioned'
ημείσθην 'I answered'

286 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.

287 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 ἀπεκρίνοτο.

288 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 ἀπελογησάμην. 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 ἀπελογηθη ος is probably a gloss.

289 The sole instance of this form is S. OT 1265: ὁ δείως ὅρα νῦν, δεινά βρυχηθεῖς τάλας χαλά κρεμαστὴν ἀρτάνην ('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.

290 Ἐλοινορησάμην 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).

291 The normal and oldest aorist of ἀμείβομαι is the sigmatic aorist (Hom., S., Hdt., Aristot.). The passive form is found three times: Pl. P. 4.102, Xen. An. 2.5.15 (ἐπι-), 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)Cāk-, (C)Cāp-, (C)Cāφ-.

Examples are: (-āk-) ἑπλάκην (πλέκο), ἑτάκην (τήκω)252, (-āp-) ἐκλάπην253 (κλέπτω), ἑλάπην (λέπω), ἑσάπην (σῆμω), ἑτράπην (τρέκω); (-āφ-) ἐβάφην (βάπτω), ἑγράφην (γράφω), ἑράφην (ράπτω), ἑσκάρη (σκάπτω), ἑκτράφην (στρέφω), ἑτάρην (θάπτω), ἑτράφην254 (τρέφω).255 As for stems of the structure (C)Cāk- and (C)Cāφ- 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)Cāp-, however, it can be seen that the rule probably did not exist in the Homeric language. In Homer, we find the form ἑκτηθῆναι (τρέκω), whereas in Classical Greek the normal form is ἑτράπην.

Above, it was stated that stems of the structure (C)Cāl-, (C)Cām-, (C)Cār-, (C)Cāk-, (C)Cāp-, (C)Cāφ- 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 #_VC-.

Examples are: ἀρ-θη- (ἀραρίσκω), ἀφ-θη- (ἀπτω), ἀχ-θη- (ἀγω), ὀρ-θη- (ἀρνωμι; Corinna 1.21), ὀφ-θη- (ἀφώ). There are no counter-examples to this rule. Especially ὀρ-θη- (from ἀραρίσκω) and ἀφ-θη- are significant, as you would normally expect forms in -η- with stems in -αρ- and -αφ- (e.g. ἑδάρην, ἑγράφην).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)CāC-, (C)CīC-, or (C)CōC-. 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-.

252 In Pindar, we find the novel form ἀρακείς, aorist of δέρκομαι.

253 Also ἐκλέφην occurs (Eur., Hdt.), cf. rule (v). The e-vocalism is probably adopted from κλέπτω or ἐκλεψα.

254 There is also a variant form ἐτράφην, an analogical (e-vocalism taken from present stem), and younger (no debasement) 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 ἐμάραθην, ἐγράφην (once in a Milesian inscription, 5th c. BC, SIG 57.5, and post-Classical), and ἐθάραθην (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. ἐκλέψα): ἐκλέφθην, ἐπλέχθην, ἐστρέφθην, ἐτιχθην, ἐτρέφθην.

256 This rule might be explained by the intransparency of forms as ἤγα (ἄγω), ἥπῃ (ἄπτω), ὧκη (ὄρω).
As for collective motion verbs, both aorist forms occur. Take, for instance, ἐμίγην vs. -ἐμ(ἐ)χθην, and -ἐλέγην vs. -ἐλέχθην.

The best example of this semantic tendency is the pair ἐφάνην vs. ἐφόνθην; the former expressing a spontaneous process 'appeared', the latter a true passive 'was shown, was discovered'\textsuperscript{257}. Other examples of verbs with monosyllabic aorist stems in -av- are ἐμάνη (μαίνομαι), which is a mental process (rule (1)); passives are ἐκράνθην 'was accomplished' (κραίνω), ἐρράνθην 'was sprinkled' (ραίνω), ἐχράνθην 'was defiled' (χραίνω) (rule (2)). The semantic tendency can also be discerned with the stems in -ay-.

The forms in -η- denote spontaneous processes: ἐρράγην, ἐπάγην, ἐάγην\textsuperscript{258}, whereas the forms in -θη- denote passives: ἐσφάχθην (σφάττω), ἐτάχθην\textsuperscript{259} (τάττω), ἐφράξθην (φράττω).\textsuperscript{260} Compare, finally, the following stems in -υφ-: ἐτύφην (τύφω) 'smoked (intr.), smouldered' (e.g Ar. Lys. 221) denotes a spontaneous process, while ἐκρύψθην 'was hidden' is passive.\textsuperscript{261}

The following table sketches the distribution of the forms in -η- and -θη- in Classical Greek:

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
-η & -θη \\
\hline
-εν & -αν \\
\hline
-άγ & -όν \\
\hline
-άη & -άθ \\
\hline
-έπ & -όπ \\
\hline
-ίσ & -όσ \\
\hline
-όμ & -όμ \\
\hline
\end{tabular}
\caption{Distribution of forms in -η- and -θη-}
\end{table}

\textsuperscript{257} In tragedy, the form ἐφόνθη seems to be used sporadically as an intransitive 'appear' (cf. also the intransitive use of ἐστάθη in Homer and tragedy). The strongest case in point is S. Ant. 103 (lyr.): ἀκτις ἀδέλου, τὸ κάλ-λιστον ἐπιτεκτὸ λαοὶ θεῶν τῶν πρωτέρων φανέρ᾽ ἐφόνθης ποτ᾽ ἡ 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 φανέρ 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 ἐφάνθη, 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.

\textsuperscript{258} In Attic, the compound κατάγηναι is the usual form: a contraction of *κατα-γήναι. The long α also spread to the augmented forms, e.g. κατάγην.

\textsuperscript{259} Ἐτάχθην does not have an agentive use 'to post oneself', as this notion is expressed by the form ἐπάζων.

\textsuperscript{260} Some of these verbs, however, have variant forms in -η-: ἐσφάγην (σφάζω), ἐμάγην (μάττω), and ἐτάγην (τάττω). These variants occur less frequently than their counterparts in -θη-. The latter two are attested only once in Classical Greek. Ἐφράγην, furthermore, is post-Classical. I will return to this morphological variation below (3.3).

\textsuperscript{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.

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The forms ἐδεήθην, 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 ἐδεήθην 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, λοιπορέομαι, ἀλοφύρομαι, 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 ἐλυφήθην, ὀργίσθην.

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’ (ἀπολογεύομαι). 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 ἐδολοφόρηθη) or ‘do not obey’ (compare οὐκ ἔπεισθην), and ‘deny’ with ‘do not think’ (compare οὐκ φήθην). Another possibility is that ἀπεκρίθην, ἀπελογήθην, ἡμείσθην, ἤρνηθην were created after the example of ἐδεήθην ‘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 (ἐδεήθην, ἐμνήσθην), or they received the passive aorist form due to their subject’s strong emotional involvement (βρυχάομαι, λοιπορέομαι, ἀλοφύρομαι). 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, ἀπολογεύομαι, ἀρνέομαι, a tentative explanation was given for the occasional occurrence of the passive aorist form.

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 ἀλοφυρθεῖς is found only once, in Thucydides (6.78.3): τοῖς σάτωτοι κακοῖς ἀλοφυρθεῖς ('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 τινι, μέφρομαι 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.\textsuperscript{294}

*Mental activity* (volitional):
\begin{align*}
\epsilonβουλευσάμην & \text{ 'I considered, resolved'} \\
\ελογισάμην & \text{ 'I reckoned, considered'} \\
\εμπιστεύσαμην & \text{ 'I contrived'}.
\end{align*}

*Mental (cognitive) process* (non-volitional):
\begin{align*}
\διευθύνω & \text{ 'I thought, intended'} \\
\εμνήσθη & \text{ 'I remembered'} \\
\εφράσαμην & \text{ 'I observed, thought, understood'} \textsuperscript{295} \\
\εφεύσαμην & \text{ 'I erred, was mistaken'}.
\end{align*}

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:

\textsuperscript{294} How subtle the transition between mental process and mental activity is, can be illustrated by the pair ἡγόμαι, with a sigmatic middle ἡγήσαμην, and οἴμαι, with a passive aorist ὄθηθην. To ἡγόμαι ("believe, hold that") a certain degree of agentivity 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, οἴμαι 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): "Hierarch bedeutet die Verben (...) νομίζειν und ἡγείσθαι einen objektiven, auf Erwägung und Vergleichung der Tatsachen beruhenden Glauben, der nicht aus einem inneren unbestimmten Gefühle erwächst. (...) Die Verben (...) οἴεσθαι, 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 ἡγόμαι ("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 ἄγω, e.g. τιμωτέρον τε ἄροιν αὐτόν (Th. 8.81.2) ("(...) and that they should hold him in greater honour"). Cf. also Latin dūcō 'consider s.o. s.th'.

\textsuperscript{295} Φράζωμαι occurs especially in epic and Ionic. In Herodotus, as in Homer, we occasionally find the sigmatic middle ἑφραζόμην besides the common ἑφραζαμήν. Once οἴμωσαμην occurs in an oracle (3.57.4): clearly an epic-poetic form (cf. -σα-). However, in the two other instances of the sigmatic middle (Hdt. 1.48.2, 5.9), there may be a semantic distinction. Cf. ὅκως δὲ οὖν Μήδων ἅπαντες γεγονόσι, ἐγὼ μὲν οὖν ἦκ τοῦ ἑφράζωσαμην (Hdt. 5.9) ('How they have come to be colonists of the Medes I myself cannot account for'), and (...) Γοργίῳ ὑπέθετο ἑπιφρακτεῖσαι αὐτῆ, τὸ κηρύν ἐκκάλεσεν κελεύοντα (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).
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 ἐπιλέξαμην (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 ὑπῆθην ‘I thought’.

The second case of an extension of the passive aorist form to the mental activity verbs is the following:

(19) ὁπ' ανατα γὰρ προσκευόμενοι καὶ ἐπιλογισθέντες ὁτι οὖτε πλήθει ἐξουσι ἔχονται οἰ βάρβαροι οὔτε ὅποι (...), (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.  

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)χθην/ἐμίγην, συνελέξην/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 ἀλλα τί μοι ταύτα φίλος διελέξατο θυμός (Λ 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, Schwyzer-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' ἐπιλεξθῆς (‘do not consider me the wife of Agamemnon’).

297 Another case of the passive -ἐλογίσθην used as the middle might be present at Pl. R. 531d: Οἶμαι δὲ γε, ἦν δ' ἐγώ, καὶ η τούτων πάντων ἄν διελπλάθαμεν μέθοδος ἐὰν μὲν ἐπὶ τὴν ἄλλης κοινωνία υφίκηται καὶ συγγένεσιν, καὶ συλλογισθῇ ταύτα ἡ ἐστὶν ἄλλης 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.  

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 διελέξθην from (συλ)λέγομαι - (συν)ελέξθην ‘I gathered’. A strong indication in support of the association of διαλέγομαι ‘discuss’ with (συλ)λέγομαι ‘gather (intr.)’ is the anomalous perfect form δι-είλεγμαι that διαλέγομαι has in common with συλλέγομαι (συν-είλεγματι). It is probable that δι-είλεγματι was created after the example of συν-είλεγματι. In the same fashion, the more recent aorist passive form διελέγην (first in Aristotle) was probably created by analogy with συλλέγομαι : συνελέγην.

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. ὄσφρονθην), speech act verbs (e.g. ἔλοιθρηθην), mental activity verbs (e.g. ἔπελογίσθην), and reciprocal verbs (διελέξθην). These sporadical 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.  

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298 Cf. διακοντίζομαι (+ dat.) ‘contend with others at throwing the javelin’ vs. ἄκοντίζω ‘hurl a javelin’. 

299 Note that λέγω ‘speak’ has the passive aorist ἐλέξθην (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 μετέχονται ‘fight’ occurs in Epictetus (Dis. 4.9.11). Eventually, the sigmatic middle form disappeared completely. Thus, in Modern Greek we only find ‘passive’ aorist forms, as for instance, δέχτηκα ‘I accepted’ (cf. Classical Greek ἐδέξαμη), εὐχήθηκα ‘I wished’ (cf. ηὐξέμη), πλύθηκα ‘I washed myself’, σκέφτηκα ‘I considered’ (cf. ἐκεκάμη), συμμονδεύσθηκα ‘I got s.o.’s advise’ (cf. συνεβουλεύσαμη). The Modern Greek aorist δέχτηκα may be a descendant of the isolated form ὑκοδεχθεῖς at E. Held. 757. Remarkably, the sigmatic middle form has been preserved in the singular middle imperative form, e.g. θεώρησον ‘be considered, consider yourself’ (= Classical Greek θεώρησο).
3.2.4 Root and thematic aorist

So far, the passive aorist in -\(\eta\) and -\(\theta\eta\), 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 -\(\eta\) and -\(\theta\eta\) 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, βλητο, ἀπέκτατο, ἑσχετο, (ἀπ)ολόμην (Schwyzer, I: 97). The first two are replaced by ἐβληθήν (Classical Greek) and ἐκτάθην (already in Homer); the latter two forms even survived through the Classical age. 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. This pattern was altered by the spread of the passive aorists in -\(\eta\) and -\(\theta\eta\).

The middle root aorist occurs in almost all middle meanings. However, after Homer many root aorists disappeared.

| Passive | E.g. ἐκτάτο (Hom.) 'was killed', βλητο (Hom.) 'was hit' |
| Spontaneous process | πλητο 'became filled', φθιμην (Hom.) 'perished' |
| Mental process | ὤνητο 'benefitted from, enjoyed', ἑτην 'I endured, dared' |
| Body motion | ἀλτο (Hom.) 'jumped', ἔσσυντο (Hom.) 'moved (intr.)', ὁρτο (Hom.) 'rose up' |
| Collective motion | ἑμιβλητο (Hom.) 'met with', λυτο (Hom.) 'dissolved (intr.)' |
| Speech act | εὔκτο (Thebais) 'boasted, prayed' |
| Indirect reflexive | ἑτο 'sent s.o./s.th. for oneself', ἕθετο 'put s.o./s.th. for oneself', -δοτο 'give away (for oneself)' |

The thematic middle aorist occurs practically in all middle usage types, in Homeric as well as in Classical Greek.

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301 The passive form ἑσχετηθην appears only late (Arrian).

302 In Indo-Aryan, middle s-aorists with passive meaning are found, e.g. Skt. द्वरध्वम, Av. अश्रुःद्वम 'you have been heard' (see Thumb-Hauschild 1959: 305, Reichelt 1978: 298).


Passive
Spontaneous process
Mental process
Body motion
Collective motion
Perception
Speech act
Indirect reflexive

E.g. ἔσχόμην 'I was held'

ωδόμην 'I perished, died', ἔγενόμην 'I was born, became'

ἡγρόμην 'I woke up', ἐλαθόμην 'I forgot', ἐπιθόμην 'I believed, obeyed', ἐπιθύμην 'I learned, heard'

ἀφικόμην 'I arrived', ἐπηράστομην 'I turned', ὁρέτο (Hom.) 'arose', ἐπιτόμην 'I flew'

ἡγρόμεθα 'we gathered (intr.)'

ἡσθόμην 'I perceived', ἀφαρόμην 'I smelted'

ἡρύμην 'I asked', λατόμην 'I begged'

ἡγογόμην 'I led away for myself', ἀρόμην (Hom.) 'I acquired' (ἀρνυμαί)

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.

ἡγρόμην vs. ἡγέρθην (ἐγείρομαι)

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.

ἐλιπόμην vs. ἐλείφθην (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 κατα-λειφθέντες ὑπὸ Δαρείου (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 ἐλιπόμην and ἐλείφθην 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'.

ἐπιθόμην vs. ἐπείσθην (πείθομαι)

In Homer, only the thematic aorist occurs; ἐπείσθην, which is clearly young considering its e-vocalism, first appears in Aeschylus. Besides in poetry, the thematic form rarely occurs. In Herodotus, ἐπιθόμην occurs three times, two of which are uncertain (6.80 and 6.140.2), and the third is from an oracle. Ἐπείσθην, 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 ἔγενήθην appears. However, if the passive future ἔγενήθησομαι in Plato (Prm. 141) is sound, it must have existed earlier in Attic.
Further, ἐπίθυντο occurs in a decree from 387/6 BC (IG II² 29.14). It appears that, in Classical prose, ἐπείσθην has replaced ἐπιθύμην in the meaning 'obey, believe'. However, it is quite possible that the opposition between middle ἐπιθύμην and passive ἐπείσθην was very much alive in more colloquial Attic. In Aristophanes, ἐπείσθην 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-]).

ἐπιθύμην vs. ἐπείσθην/ἐπείρασθην/ἐπείρασθην (τρέπομαι)

Certainly one of the most complex verbal paradigms is that of τρέπομαι. In Classical Greek, five different middle and passive aorist forms occur: ἐπεφώμην, ἐπιθύμην, ἐπείρασθην, ἐπείρασθην, and ἐπείρασθην. 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 τρέπομαι with a passive meaning. The single instance that actually is mentioned by LSJ and Kühner-Blass, II: 554-5 is:

(20) "A τε που ἔτι ζοντι δυστυχήματα ἐγένετο πολλά καὶ δεινά, ὁν καὶ τέλος ἢ πατρὶς αὐτοῦ ὡλὴ ἀνεπτάκεστο (...) (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'.

'Επείρασθην 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 entrusted with']). In Herodotus, the form could be a special Homeric feature since the form that is used most commonly in Herodotus is ἐπείρασθην (‘turn’). It should be noted, however, that Herodotus shows a variant present form τράπω. 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 στραφέντες). In Attic, the common form is ἐπείρασθην. The passive aorist forms ἐπεφώμην and ἐπείρασθην are clearly marginal. 'Επείρασθην cannot be old (cf. ε- vocalism); it occurs in Antiphon (3x ἔπι-), Euripides (1x), and Xenophon (4x). 'Επείρασθην occurs mainly in drama, probably as a metric alternative to ἐπιθύμην, 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 ἐπιθύμην, the

306 In Gorgias' Helen (Fr. 11.76), Blass conjectured πιθέσθαι, probably because of the coordinated aorist infinitive συναινέασοι. The ms. have πιθέσθαι. 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 πείσομαι means 'I will obey, believe', whereas πείσθημαι is strictly passive 'be persuaded' (see also ch. 4).

308 The passive of the compound ἐπιτρέπω '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, 4.5.5, 4.6.3.
common form in Homer, that is replaced by ἔπεισθη, the common form in Classical Greek, and with intransitive ἐλπιόμην (Homer), which is replaced by ἔλειψθη (Classical). Remarkably, this tendency is not general since ἡγρόμην and ἐπαραξομήν do not appear to give way to ἡγέρθη and ἐπάξην/ἐπάφθην/ἐπέφθην. 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 -ητ- (e.g. ἔγραφη) and the original intransitive use (e.g. ἔφρων), and that the aorist in -θητ-, 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 -(θ)ητ-. 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 -(θ)ητ- 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 -(θ)ητ- 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 = Experiencer</th>
<th>Subject = Patient</th>
<th>Subject undergoes Change of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>€κοινήθην</td>
<td>+/-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+/-</td>
</tr>
<tr>
<td>Spontaneous Process</td>
<td>€πάσχω</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Mental Process</td>
<td>€φοβίζω</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Collective Motion</td>
<td>€γέρωθην</td>
<td>+</td>
<td>+/-</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Body Motion</td>
<td>€φρίζω</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Reciprocal</td>
<td>€μαχεσάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Direct Reflexive</td>
<td>€λουσάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Perception</td>
<td>€γευσάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mental Activity</td>
<td>€λογισάμην</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Speech Act</td>
<td>€λοιτοφησάμην</td>
<td>+</td>
<td>+</td>
<td>+/-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Indirect Reflexive</td>
<td>€κατηγόρησα</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. 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 -Gr only occurred in the passive meaning and the spontaneous process meaning. These meanings can, therefore, be considered the source uses of the category. 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).

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310 E.g., €πάσχω denotes a change of state: 'melted (intr.)' (spontaneous process) or 'be melted' (passive). On the other hand, the passive €φοβίζω '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 -Gr considering the enormous preponderance of the tokens with passive meaning in the frequency figures. Out of 90 occurrences of the aorist in -Gr, 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., €φοβίζω 'I am afraid'. In de aorist stem, however, these verbs designate a change of state, e.g., €φοβίζω 'I became afraid'.

132
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 χολόσασα ‘became angry’. In Classical Greek, however, sigmatic middle aorist are volitional without exception (cf. also Rijksbaron 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) **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 - (θ)η- 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 - (θ)η- (resemblance of subject to prototypical patient), and the meaning of the aorist (completedness of event), are strongly associated. For example,

**Middle Present:** ἐτήκετο ‘it was melting’ (non-completed change of state)
**Passive Aorist:** ἔταξε ‘it melted’ (completed change of state: high subject-affectedness)

**Middle Present:** ἔφοβεόμην ‘I was afraid’ (mental state)
**Passive Aorist:** ἔφοβηθην ‘I became afraid’ (completed change of state: high subject-affectedness)

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 -η- and - (θ)η- 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 ἐκλίνθην ‘I lay down’ and ὁρμήθην ‘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.