Discussion Note

Evidence for Adverbial Origins of Final -ς on the Medieval and Modern Greek -οντας Participle

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Abstract
This article adduces evidence which helps to confirm the hypothesis of the adverbial origins of final -ς on the -οντας partiiple which arose in medieval Greek. First, data from the early vernacular text The Chronicle of the Morea is used to show the inability of a rival hypothesis to account for the distribution of this -ς. Afterward, the hypothesis of adverbial origins is investigated further by noting the distribution of the -ς across multiple editions of three medieval works. As the frequency of innovative -ς appearing on certain adverbs occurs in direct correlation to the frequency of innovative -ς on the participle, the hypothesis for a link between the two phenomena is strengthened.

Keywords
participle; Middle Greek; adverbs; language change

This article adduces evidence which lends weight to the current scholarly consensus concerning the origins of the final -ς of the -οντας participle which arose in medieval Greek. Over the past century or more, two hypotheses of origin have been suggested for this added final consonant attached to the erstwhile participle in -οντα. The first, as exemplified by Schwyzer,1 is that this -ς represents an attempt by speakers to clearly mark the -οντα participle as a nominative, inasmuch as it is associated with nominatives, either controlled referentially by the (nominative) subject of the main clause or co-occurring with a nominative as its subject in an absolute construction. The second, as hinted at by Jannaris2 and expanded upon by others,3 is that this -ς in fact represents

1) Schwyzer (1950: 410): “… fast immer ist nominales Bezugswort das Subjekt ...”
2) See Jannaris (1897: 302), where the -οντας(ς) suffix is considered as an adverbial ending.
3) Mirambel (1961: 53) explicitly speaks of “la generalization d’un s final adverbiale”, but gives little justification.
the adverbial -ς which began appearing around this time on formerly -ς-less adverbs, e.g. τότε ‘then’ and πότε ‘when?’. More recently, scholarly consensus has begun to coalesce around the latter hypothesis, but due to a lack of definitive evidence the matter has not been entirely put to rest.

This article attempts to help settle the question by first looking at data from the Chronicle of the Morea, a lengthy text from the 14th century attested in two major codices. The hypothesis that the -ς originated as an inflectional morpheme presupposes that some inflection was indeed taking place; the -ς would necessarily be strictly a masculine nominative singular ending, and thus in its inchoate stage we should see the -οντας participle occurring primarily in conjunction with masculine nominative singular nouns. As we see, however, the distribution is random, thus militating against the hypothesis of the inflectional origins of the -ς. Afterwards, we examine both codices of the Chronicle of the Morea side-by-side along with several other texts in an attempt to discern what patterns, if any, govern the addition of the -ς. It becomes clear that there is indeed a statistical correlation between innovative adverbial -ς and the -ς which appears on the -οντας participle, suggesting that the two phenomena are closely related.

First, we examine a selection of data from the Paris codex of the Chronicle of the Morea. This codex contains a large number of both -οντα and -οντας participles, and so we are able to see the distribution of each with relative clarity. The following chart reveals the number of times both the older -οντα and the remodeled -οντας participles occur in conjunction with nouns of each gender and number:

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4) Horrocks (2010: 298): “The addition of the final -(ς) [-s], as in modern Greek, also seems to have begun in the later Byzantine period; this element, regular in the principal class of adverbs in -ως [-os], perhaps reflected the feeling that they served a related adverbial function (cf. the addition of -(ς) [-s] to τότες [-totes] ‘then’, πότες [-potes] ‘when?’ etc.).”

5) Manolessou (2005: 251): “From the 14th c. onwards, a final -ς is added to the ending, giving it the standard MG form [-ontas]. This is in all likelihood an adverbial suffix, appearing in other adverbs as well, e.g. totes ‘then’, potes ‘never’, tipotas ‘nothing’ (Hatzidakis 1934; Horrocks 1997: 229), and not the [-s] suffix of the nominative (as in Schwzyer 1950: 440). The forms with and without [-s] coexist in texts of the period, but distributional data are lacking.”
As we can see from Table 1, the distribution of forms in -ς is very similar to the distribution of forms without -ς. That is to say, the distribution of the -ς is essentially random with regards to inflectional considerations. Several examples follow to demonstrate this fact (the participles and their translations are in bold):

1. Διαβόντα δὲ ἡμέρες δύο, ἐβάλθη νὰ σκοπίζῃ …. — *Chronicle of the Morea* (P) 8180
   "Two days having passed, he set himself to think …"

2. Διαβόντας δὲ ἡμέρες δύο ἦλθεν ὁ μισὲρ Τζάνης …. — *Chronicle of the Morea* (P) 7398
   "Two days having passed, Sir John came …"

3. Διαβόντα ὀλίγος καιρὸς ἀπόθανε ἡ κουντέσσα …. — *Chronicle of the Morea* (P) 8001
   "A short time having passed, the countess died …"

4. εἰς τὴν ἄνοιξιν τοῦ καιροῦ διαβόντα ὁ χειμῶνας ἀφῶν πασχάσουσιν ὁμοῦ εἰς τὸν ἀπρίλιον μῆναν …. — *Chronicle of the Morea* (P) 3515–3516
   "In the spring of the year, the winter having passed, after they had spent Easter together in the month of April …"

Here we see four uses of a participle in -οντας used in almost identical constructions. Three do not exhibit the new -ς; one does. The one that does occurs with a feminine plural noun; the two that do not occur with a masculine singular noun. Hiatus-blocking, too, is disqualified as a likely reason for the addition of the -ς. The presence or absence of the -ς is apparently random, a fact which casts serious doubt on the hypothesis of inflectional origins of the morpheme and which lends additional credence to the current scholarly consensus of an adverbial origin for the -ς.

A further examination of data pertaining to the use of the -οντας participle in the *Chronicle of the Morea* provides us with positive evidence that this added -ς is of adverbial origin. Around the 14th century, an innovative -ς began appearing on formerly -ς-less adverbs such as τότε or πότε, resulting in forms such as

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6) Forms occurring in conjunction with neuter plural nouns were excluded from the study due to the possibility that they were actually old declinable participles, which also exist sporadically throughout texts of the period.
τότες or πότες. This -ς appears to have been an analogical extension of a similar (sometimes detachable) ending on other adverbs, such as πολλάκις. It appears to be added to forms like τότε or πότε randomly, with no apparent distributional pattern, and also rather sparingly at first. In this, it shares much with what we have observed of the distribution of the -ς which begins appearing simultaneously on the -οντα participle, itself a quasi-adverbial. Yet two random distributions do not a pattern make. An examination of data from the Chronicle of the Morea, however, does provide evidence that these two phenomena are related. The tables below compare the frequency of each innovative -ς—the one found on adverbs and the one found on -οντα(ς) participles—across the two major codices of the Chronicle of the Morea:

Table 2. Frequency of innovative -ς in the Chronicle of the Morea (P)

| Forms which exhibit -ς | Forms which lack -ς |
|------------------------|---------------------|
| Occurrences of the -οντα(ς) participle | 16 (of 70) — 23% | 54 (of 70) — 77% |
| Occurrences of adverbs τότε(ς) and πότε(ς) | 26 (of 236) — 11% | 210 (of 236) — 89% |

Table 3. Frequency of innovative -ς in the Chronicle of the Morea (H)

| Forms which exhibit -ς | Forms which lack -ς |
|------------------------|---------------------|
| Occurrences of the -οντα(ς) participle | 4 (of 113) — 4% | 109 (of 113) — 96% |
| Occurrences of adverbs τότε(ς) and πότε(ς) | 2 (of 274) — 1% | 272 (of 274) — 99% |

When the distributional data for innovative -ς in the two major codices of the Chronicle of the Morea is compared, there emerges a pattern which is distinctively non-random. While innovative -ς on both adverbs and the -οντα(ς) participle is attested in each codex, the frequency with which it is attested vis-à-vis its number of possible occurrences is striking. In the Paris codex, we see that with respect to both adverbs and the participle the -ς occurs on a notable minority of forms. In the Copenhagen codex, the frequency of the -ς drops significantly, being only barely attested. However, most significantly for our purposes, it is clear that the frequency of occurrence of the -ς on both adverbs and the -οντα(ς) participle exists in a state of direct correlation. In other words, the two pattern together reasonably closely, providing evidence for the hypothesis of the adverbial origins of the -ς on the -οντας participle.

While the Chronicle of the Morea, with its large corpus size, provides the best evidence for the connection between adverbial and participial -ς, at least two other texts from the period handed down in multiple manuscripts also show

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7) See Manolessou (2005: 246–254) for an excellent discussion of the evolution of the -οντα(ς) participle throughout the Byzantine period.

8) Included in this (and all following) counts are the related adverbs τίποτε(ς), πώποτε(ς), ἐτότε(ς), and πάντοτε(ς).
the same phenomenon in miniature, the *Achilleid* and the *History of Belisarius*. There follows in Tables 4 through 10 a presentation of data from these texts similar to the one above for the two manuscripts of the *Chronicle of the Morea*:

Table 4. Frequency of innovative -ς in the *Achilleid* (Naples Codex)

| Occurrences of the -οντα(ς) participle | Forms which exhibit -ς | Forms which lack -ς |
|---------------------------------------|------------------------|---------------------|
| 0 (of 3)—0 %                          | 3 (of 3)—100 %         |
| Occurrences of adverbs τότε(ς) and πότε(ς) | 0 (of 22)—0 %         | 22 (of 22)—100 %   |

Table 5. Frequency of innovative -ς in the *Achilleid* (Oxford Codex)

| Occurrences of the -οντα(ς) participle | Forms which exhibit -ς | Forms which lack -ς |
|---------------------------------------|------------------------|---------------------|
| 1 (of 4)—25 %                         | 3 (of 4)—75 %          |
| Occurrences of adverbs τότε(ς) and πότε(ς) | 2 (of 17)—12 %        | 15 (of 17)—88 %    |

Table 6. Frequency of innovative -ς in the *Achilleid* (British Museum Codex)

| Occurrences of the -οντα(ς) participle | Forms which exhibit -ς | Forms which lack -ς |
|---------------------------------------|------------------------|---------------------|
| 0 (of 1)—0 %                          | 1 (of 1)—100 %         |
| Occurrences of adverbs τότε(ς) and πότε(ς) | 7 (of 57)—12 %        | 50 (of 57)—88 %    |

Despite the small corpus size, we can nonetheless observe the broad trends in the *Achilleid*. The Naples codex contains no use of innovative -ς on either adverbs or participles, while the Oxford codex shows the -ς appearing rarely but noticeably on both. Due to the extreme scarcity of -οντα(ς) participles in the British Museum codex, it is difficult to take anything significant from it; given the frequency of innovative -ς in this codex on adverbs (attested much more plentifully), we might predict that every fourth or fifth participle would receive the -ς if indeed more existed. In any case, the general pattern noticed in the *Chronicle of the Morea* holds true: the -ς of adverbs and the -ς of participles exist in direct correlation with each other.

We turn to the other text handed down in multiple editions, the *History of Belisarius*:

Table 7. Frequency of innovative -ς in the *History of Belisarius* (Recension ρ)

| Occurrences of the -οντα(ς) participle | Forms which exhibit -ς | Forms which lack -ς |
|---------------------------------------|------------------------|---------------------|
| 1 (of 6)—17 %                         | 5 (of 6)—83 %          |
| Occurrences of adverbs τότε(ς) and πότε(ς) | 3 (of 36)—8 %         | 33 (of 36)—92 %    |

Table 8. Frequency of innovative -ς in the *History of Belisarius* (Recension Λ)

| Occurrences of the -οντα(ς) participle | Forms which exhibit -ς | Forms which lack -ς |
|---------------------------------------|------------------------|---------------------|
| 0 (of 3)—0 %                          | 3 (of 3)—100 %         |
| Occurrences of adverbs τότε(ς) and πότε(ς) | 1 (of 19)—5 %         | 18 (of 19)—95 %    |
The four recensions of this text continue to generally confirm what we have seen. In two (Recensions N and χαι), there is no hint of innovative -ς on either adverbs or participles. In Recension Λ, there is only the barest hint of innovative -ς, namely on only one adverb. Finally, in Recension ρ, innovative -ς is somewhat more widely attested, occurring rarely on adverbs and participles alike. As in the Chronicle of the Morea and the Achilleid, the two phenomena pattern together.

The data from all three texts and their various editions, therefore, is essentially uniform in indicating that there is a statistical correlation between the -ς which begins to appear on adverbs around the 14th century and the -ς which begins to appear on participles in -οντας around the same time. This lends additional credence to the hypothesis that the -ς of the -οντας participle in medieval and modern Greek is in origin the very same -ς which was being added to adverbs starting in the 14th century. Given the evidence adduced for this hypothesis and against the one of inflectional origin, therefore, the modern scholarly consensus of adverbial origins stands ever more strongly as the most likely answer to the question of the origin of the -ς of the -οντας participle.

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