

The Choice between Finite and Non-finite Relative Clauses: Participial Strategy in Documentary Papyri

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THIS ARTICLE focuses on the features and uses of attributive participles in documentary papyri, in order to provide new evidence about the competition between participial structures and finite relative clauses in Ancient Greek.

Participles constitute an extremely varied and productive category¹ in Ancient Greek, which has caused Greeks to be known in the scholarship as φιλομέτοχοι, lovers of participles.² At the same time, participles are significantly involved in language change especially in the Post-Classical Greek period, due to the increasing presence of periphrastic constructions appearing with the participle.³

¹ The category of participle is also per se a non-prototypical one, as it can be situated between the categories of adjectives and verbs. A discussion of the participle as a linguistic category is outside the scope of this article: for some discussions see A. Pompei, “Participles as a Non-prototypical Word Class,” in E. Crespo et al. (eds.), *Words Classes and Related Topics in Ancient Greek* (Louvain-la-Neuve 2006) 361–388, and “La categoria del participio tra grammatici antichi e teoria linguistica contemporanea: i tratti verbali,” in A. Bartolotta et al. (eds.), *Perspectives on Language and Linguistics. Essays in Honour of Lucio Melazzo* (Palermo 2021) 435–455.

² See A. N. Jannaris, *A Historical Greek Grammar, chiefly of the Attic Dialect* (London 1897) 505; R. Kühner and B. Gerth, *Ausführliche Grammatik der griechischen Sprache. Satzlehre* (Hannover 1904) 98; E. Schwyzler and A. Debrunner, *Griechische Grammatik II* (Munich 1950) 386.

³ K. Bentein, *Verbal Periphrasis in Ancient Greek Have- and Be-Constructions*

In traditional grammars, the three main uses of the Ancient Greek participle have been described as the adjectival (or attributive) participle, the adverbial (or circumstantial) participle, and the verb complement (or supplementary) participle.⁴ While the forms and usages of participles in the latter two groups have been thoroughly investigated in different periods of the Greek language, the subcategory of attributive participles, which, as outlined in §2, corresponds to—and competes with—relative clauses, has received less scholarly attention. At the same time, studies on Greek relativisation have focused on finite relative clauses, while the participial forms have mostly been excluded.

To the best of my knowledge, only two contributions have been dedicated specifically to Greek relative participles⁵ in their comparison with finite relative clauses. First, Mugler especially concentrates on Homer and Herodotus in order to understand the factors governing the preference for finite or participial relative clauses.⁶ According to Mugler (160), the choice between the two options can be interpreted in Homer from a stylistic point of view, being based on the degree of “amplitude or concision” needed in the passage, while also taking into account metrical and euphonic reasons. In Herodotus, the participle is found to be especially frequent in the nominative, whereas nominatives are rare as antecedents of finite relative clauses; moreover, participles are avoided when their use could lead to an effect of heaviness (“lourdeur”), for instance in the repetition of participles in the oblique cases.

(Oxford 2016), and E. Nardi, “The Spread of Participial Clauses in Biblical Greek: Semitic Interference and Multilingualism,” *Journal of Historical Linguistics* 14 (2024) 427–471.

⁴ See B. Fox, “The Discourse Function of the Participle in Ancient Greek,” in F. Klein-Andreu (ed.), *Discourse Perspectives on Syntax* (New York 1983) 23–41.

⁵ The term *Relativpartizip* is used by C. Lehmann, *Der Relativsatz* (Tübingen 1984) 49–58, who attributes its origin to Jacobi.

⁶ C. Mugler, “Sur la concurrence entre le participe et la subordonnée relative,” *RPhil* 16 (1942) 146–160.

More recently, Hayes has presented a comprehensive investigation about the choice of relative participles in New Testament Greek.⁷ The distribution of participle and finite clauses is here interpreted mainly in terms of restrictiveness. With respect to this distinction, “these two constructions could in no way be described as equivalent” (229): when both options are possible, i.e. in the subject function, attributive participles in the New Testament are used to express a restrictive meaning, while finite relative clauses relate predominantly non-restrictively to their antecedents.⁸

It is not clear whether similar or additional factors to those presented by Mugler and Hayes are at play in other corpora and periods of the Greek language. Rijksbaron briefly mentions that participles standing in apposition to a noun as their modifier resemble digressive (i.e. non-restrictive) relative clauses,⁹ and in recent monographs about Ancient Greek relative clauses, participial clauses are touched upon only by Perna,¹⁰ while they are not considered in Probert,¹¹ Faure,¹² and López Romero.¹³ Also in the current most extensive investigation about relativisation

⁷ M. E. Hayes, *An Analysis of the Attributive Participle and the Relative Clause in the Greek New Testament* (New York 2018).

⁸ Exceptions to this general tendency are also documented by Hayes, who explains some of these in *ad hoc* ways.

⁹ A. Rijksbaron, *The Syntax and Semantics of the Verb in Classical Greek: An Introduction* (Amsterdam 1984) 132.

¹⁰ E. Perna, *La frase relativa in greco antico. Analisi sintattica basata sul dialetto attico di Platone* (diss. Univ. Padua 2013) 63–72. They are also briefly discussed in S. Fauconnier, “Internal and External Relative Clauses in Ancient Greek,” *JGL* 14 (2014) 141–162, at 156–160.

¹¹ P. Probert, *Early Greek Relative Clauses* (Oxford 2015) 4. Probert mentions, however, that participial relative clauses, in early Greek, tend to be “very short and syntactically simple.”

¹² R. Faure, *The Syntax and Semantics of Wh-clauses in Classical Greek: Relatives, Interrogatives, Exclamatives* (Leiden 2021).

¹³ M. López Romero, *Oraciones de relativo en el drama ático clásico* (diss. Univ. Sevilla 2023).

in Greek documentary papyri,¹⁴ participial relative clauses are not taken into account.¹⁵ As for Greek documentary papyri, the focus of this investigation, some research has been carried out on the syntactic variation between finite and non-finite clauses, in terms of both complementation¹⁶ and subordination,¹⁷ while the same comparison in terms of relativisation remains a missing piece. In other words, as stated by Probert, “a proper study of the competition between participial and finite relative clauses in Greek is needed, both for early Greek texts and for later periods.”¹⁸

The aim of this article is therefore to better understand the relationship between participial and finite clauses in a so-far unexplored corpus of Greek documentary papyri, investigating both the linguistic and the extralinguistic variables involved in this variation. The corpus considered for the analysis includes around 4600 texts from Egypt dating from the first to the eighth century A.D., which are part of the corpus of the ERC project EVWRIT (Everyday Writing in Graeco-Roman and Late Antique Egypt: A Socio-Semiotic Study of Communicative Variation):¹⁹ more specifically, the corpus is composed of 1725 letters,

¹⁴ E. Kriki, *Morfosintaktiki neoterismi sti glossa ton mi filologikon Papiron I Anaforikes protasis* (diss. Aristotle Univ. Thessaloniki 2013).

¹⁵ “η ανάλυση δεν επεκτείνεται για παράδειγμα στις αναφορικές μετοχές,” (Kriki, *Morfosintaktiki neoterismi* 7).

¹⁶ K. Bentein, “Finite vs. Non-Finite Complementation in Post-Classical and Early Byzantine Greek. Towards a Pragmatic Restructuring of the Complementation System?” *JGL* 17 (2017) 3–36.

¹⁷ K. Bentein et al., *Subordination and Insubordination in Post-Classical Greek: From Syntax to Context* (Berlin 2025).

¹⁸ Probert, *Early Greek Relative Clauses* 3.

¹⁹ For more information about the EVWRIT project see <https://www.ev writ.ugent.be/>, and K. Bentein and Y. Amory, “Everyday Writing in Graeco-Roman and Late Antique Egypt: Outline of a New Research Programme,” *Comparative Oriental Manuscript Studies Bulletin* 5 (2019) 17–27. For more information about the digital infrastructure of the project and its future prospects, including the public release of tools and data, see K. Bentein,

557 petitions, and 2356 contracts, which have been linguistically annotated for the purposes of this investigation.²⁰

I will take as a starting point the current debate around participles as a relativisation strategy (§1) and apply it to Greek documentary papyri, establishing the degree of equivalence between participial and finite relative clauses (§2) and describing the types of participial relative clauses attested in papyri (§3), also in relation to the presence and the position of the article (§4). I will then move to the comparison between finite and participial relative clauses in papyri, discussing the role played by case-marking (§5) and restrictiveness (§6), examining the contexts in which the two constructions are directly competing (§7) and looking at some extra-linguistic factors (§8), before reaching some conclusions (§9).

1. *Typological overview about participles and relativisation*

Some preliminary aspects about participial relative clauses need to be addressed: first, whether it is possible to interpret the status of participles as equivalent to finite relative clauses and, second, if a comparison is possible, which specific types of participles correspond to them in Ancient Greek.

In general terms, both relative clauses and participles have been regarded as adjectival constructions,²¹ but the syntactic

“Socio-semiotic, Multimodal Annotation of Documentary Sources,” in N. Reggiani (ed.), *Digital papyrology III* (Berlin 2025) 221–256.

²⁰ Finite relative clauses in the ERC corpus were manually annotated by me, while participial clauses were annotated by Morris Callens during his appointment as intern in the EVWRIT project, and subsequently revised by me and implemented with the annotation of case and further annotations about the definite article. While the identification of participles in the corpus was carried out automatically, the distinction between those involved in relativisation and those involved in complementation or subordination was made through close reading of the texts. Some issues related to their interpretation are discussed in §4.

²¹ See M. Haspelmath, “Passive Participles across Languages,” in B. A. Fox et al. (eds.), *Voice: Form and Function* (Amsterdam 1994) 151–178, at 152. Cf. also E. Benveniste’s definition of a relative clause as a “syntactic adjective”: *Problèmes de linguistique générale* (Paris 1966) 222.

structure of participial relative clauses is considered as “cross-linguistically impoverished in comparison to that of regular (or full) RCs.”²² This is due to various factors such as the absence of complementisers, the absence of overt subjects, and the absence of independent temporal reference, features which, in contrast, are present in finite relative clauses.²³

These properties are, however, not always cross-linguistically valid: one notable exception is Ancient Greek, which marks verbal tense also on the participle. The syntactic restrictions on participles also exhibit strong cross-linguistic differences:²⁴ for instance, the possibility of expressing only syntactic subjects holds for English participial relative clauses,²⁵ but cannot be extended to other languages, such as Arabic. On a typological basis, Doron and Reintges therefore distinguish four types of languages in relation to the relativisation of participles:²⁶ (i) the temporally invariable pattern which can relativise only the subject, as in Hebrew, (ii) the temporally variable pattern which can relativise only the subject, as in Ancient Greek, (iii) the temporally invariable pattern which can relativise other syntactic positions alongside the subject, as in Arabic, and (iv) the temporally variable pattern which can relativise other syntactic positions alongside the subject, as in Older Egyptian, Turkish, and Tamil.

The competition of participial structures with finite relative

²² A. Belikova, “Syntactically Challenged rather than Reduced: Participial Relatives Revisited,” in *Actes du Congrès de l’ACL 2008* (https://cla-acl.ca/pdfs/actes-2008/CLA2008_Belikova.pdf) 1–15, at 1.

²³ Cf. Belikova, in *Actes* 1–15. For these reasons, relative participles are also called “reduced RCs.”

²⁴ P. Sleeman, “Participial Relative Clauses,” *Oxford Research Encyclopedia of Linguistics* (Oxford 2017).

²⁵ R. Quirk et al., *A Comprehensive Grammar of the English Language* (London 1985) 1263; Sleeman, *Oxford Research Encyclopedia* 17.

²⁶ E. Doron and C. Reintges, “On the Syntax of Participial Modification,” unpublished paper (Hebrew Univ. Jerusalem 2006), <https://pluto.huji.ac.il/~edit/papers/DORON%26REINTGES2.pdf>.

clauses is also typologically attested.²⁷ However, in light of the differences between the two structures and especially the restrictions involving participles, scholars have expressed different opinions whether the use of participles should in fact be considered a relativisation strategy.

This is usually connected to the weight given to syntax in their description of relative clauses: for instance, the semantic perspective chosen by Keenan and Comrie in their definition “justifies considering as RC’s certain constructions that would perhaps not have been so considered in traditional grammar,” which includes “the participial construction,”²⁸ while Hendery considers participial relative clauses as relative clauses but “with a deranked verb form,”²⁹ and de Vries is mostly negative about the status of non-finite relatives, since it would be hard to separate them from other attributive structures.³⁰ However, according to de Vries, who also follows the examples of relative participles presented by Lehmann,³¹ some “true participial stra-

²⁷ “Manchmal sind sie selbst in stark ausgebauten Konstruktionen attributiv verwendbar und machen dann den RSen Konkurrenz” (Lehmann, *Der Relativsatz* 157); “the complementary distribution of relative complementizers and participial modifiers has been extensively documented both within and across languages” (Doron and Reintges 2006, 6).

²⁸ E. L. Keenan and B. Comrie, “Noun Phrase Accessibility and Universal Grammar,” *Linguistic Inquiry* 8 (1977) 63–99, at 64.

²⁹ R. Hendery, *Relative Clauses in Time and Space: A Case Study in the Methods of Diachronic Typology* (Amsterdam 2012) 169–179.

³⁰ M. de Vries, *The Syntax of Relativization* (diss. Univ. Amsterdam 2002) 58–60.

³¹ It is particularly interesting to see what Lehmann, *Der Relativsatz* 157, writes in relation to Ancient Greek and Latin relative participles: “Partizipien bilden oft auch gar nicht in erster Linie Attribute, sondern nebensatzartige Adverbialien, sog. prädikative Partizipialien oder Participia Conjuncta. Dies ist gerade auch dann der Fall, wenn, wie etwa im Altgriechischen oder klassischen Latein das Partizip ziemlich frei erweiterbar ist. Hier machen die Partizipien den RSen keine Konkurrenz da sie syntaktisch nicht eigentlich Verbaladjektive, sondern eher Verbalsubstantive sind und wie Gerundialien fungieren.”

gies” can be found, especially when there is the possibility of relativising functions other than the subject.

As there is no typological consensus about the category of relative participles, a case-by-case approach to the different languages seems the most viable option to evaluate the features of participial strategies.³²

2. *Equivalence between Greek participial and finite clauses*

The equivalence between attributive participles and relative clauses is a debated topic also in Ancient Greek. Although participial relative clauses present some restrictions in the language (see below), the scholarly consensus supports their assimilation to relative clauses: according to Perna,³³ some occurrences of the Ancient Greek participles are “perfectly comparable to the Participle Strategy of Relativization attested in many other languages.”

As for Post-Classical Greek, Mollo and Tronci observe that, in the Septuagint, relative clauses are translated from Hebrew into Greek alternatively with an attributive participle and with a relative clause.³⁴ Moreover, as pointed out by Hayes,³⁵ some authors have explicitly asserted that attributive participles belong to the category of relative clauses, at least in New Testament Greek,³⁶ while in other authors the same concept is im-

³² For instance, Sleeman, in *Oxford Research Encyclopedia*, tackles this issue about participial relative clauses in English. See Doron and Reintges 2006 for further discussion about the equivalence of participles to finite relative clauses from a generativist perspective.

³³ E. Perna, “Typology of Relative Clauses in Ancient Greek,” *Studies in Greek Linguistics* 33 (2013) 320–333, at 325.

³⁴ P. Mollo and L. Tronci, “Lost (and Gained) in Translation: Syntactic Features of Relative Clauses in Septuagint Greek,” in *Subordination and Insubordination* 133–164, at 153.

³⁵ Hayes, *An Analysis of the Attributive Participle* 4–9.

³⁶ F. Blass, *Grammar of New Testament Greek* (London 1898) 242, E. Burton, *Syntax of the Moods and Tenses in New Testament Greek*³ (Edinburgh 1898) 164–166, A. T. Robertson, *A Grammar of New Testament Greek in Light of Historical*

plied.³⁷ Hayes does not however take into account Levinsohn, who states, on the contrary, that “English versions often use a relative pronoun to translate ‘substantive’ or articular participial clauses (...) However, they are not classified as relative clauses, since they are not linked to their main clause by a relative pronoun.”³⁸

In Greek documentary papyri, as already noted by Mayser,³⁹ the possibility of using participles with the function of relative clauses is widely attested:

(1) μαρτυροῦσιν [οἱ θε]οὶ οἱ τὰ πάντα ὁ[ρ]ῶντες (IV A.D., *P.Ammon*. I 3.16)

the gods who see all things are my witness⁴⁰

In this article I follow Perna,⁴¹ Mayser,⁴² and most New Testament scholars in considering participles such as οἱ ὁ[ρ]ῶντες in (1) as equivalent to relative clauses, based on their common function. Additionally, the presence of coordinate constructions, as in (2) and (3), where a finite relative and a participle depend on

Research (New York 1919) 1105, N. Turner, *A Grammar of New Testament Greek* II (Edinburgh 1963) 152, J. W. Voelz, *Fundamental Greek Grammar*² (St. Louis 1993) 139, and C. C. Caragounis, *The Development of Greek and the New Testament: Morphology, Syntax, Phonology, and Textual Transmission* (Tübingen 2004) 175.

³⁷ H. W. Smyth, *A Greek Grammar for Colleges* (New York 1920) §2488, J. L. Boyer, “The Classification of Participles: A Statistical Study,” *Grace Theological Journal* 5 (1984) 163–179, at 163–164, and D. B. Wallace, *Greek Grammar beyond the Basics: An Exegetical Syntax of the New Testament* (Grand Rapids 1996) 617–618.

³⁸ S. H. Levinsohn, *Discourse Features of New Testament Greek: A Coursebook on the Information Structure of New Testament Greek* (Dallas 2000) 192. I believe, however, that such a position would be problematic also in the consideration of English relative clauses not explicitly linked by a relative pronoun to the main clause, such as “the woman you see.”

³⁹ E. Mayser, *Grammatik der griechischen Papyri aus der Ptolemäerzeit* II (Berlin 1926) 55–57.

⁴⁰ Translations of Greek examples are taken from the edition of the papyrus whenever possible.

⁴¹ Perna, *La frase relativa* 325.

⁴² Mayser, *Grammatik der griechischen Papyri* II 55.

the same head noun,⁴³ further points towards the analogy of the two structures:

- (2) Λεωνίδης Πτολεμαίου Ἀλθαίου, ὅς ἐστι νῦν ἐπ' Ἀλεξανδρείας, ἔχων πατράαν ἡμῶν ὑποθή[κ]ην (...) ἀρούρας τεσσαράκοντα [ἔ]ξ (I A.D., *P.Berl.Moeller* 2.4–9)

Leonides, son of Ptolemy, Althaius, who is now in Alexandria, and who has, as a pledge from our father, (...) forty-six arourae

- (3) τιμῆς τῆς συνπεφωνημένης ἀργυρίου δραχμῶν τριακοσίων εἴκοσι ὅς ἀπεσχηκέναι αὐτὴν παρὰ τοῦ Ἀμμωνίου διὰ χειρὸς ἐκ πλήρους οὔσας τοῦ Ἑρμοκλέους (II A.D., *PSI XII* 1228.13–15)

for the agreed price of 320 silver drachmas, which she has received from Ammonius in full, which are of Hermocles

At a morphosyntactic level, two main differences distinguish Greek finite relative clauses from participial relative clauses. First, participles agree with their head noun not only in gender and number, as relative pronouns do, but also in case.⁴⁴ In (4), for instance, the participle λεγομένων agrees with the head noun τῶν ἀνδρῶν ἀρουρῶν not only in the masculine plural, but also assuming the same case marking, i.e. the genitive, whereas in (5) the pronoun αἱ agrees in gender and number with the head noun, but maintains its own case marking:

- (4) μέρ[ος] τρίτον τῶν ἀνδρῶν ἀρουρῶν λεγομένων Ταναρῆς (VI A.D., *P.Berl.Brash* 17.14–16)

one-third of the unwatered arouras called Tanares

- (5) τιμῆς τῆς συμπεφωνημένης πρὸς ἀλλήλους ἀργυρίου δραχμῶν χειλ[ί]ων διακοσίων, αἱ προσεχώρησαν εἰς συνωνὴν πυροῦ (III A.D., *P.Oxy.* VI 909.18–21)

at the price agreed upon between us of 1200 drachmae of silver, which sum was devoted to the purchase of wheat

In documentary papyri, agreement does not always happen, as mismatches in case with the participle can be observed:

⁴³ One might also say that the participle is a modification attached to the first relative clause.

⁴⁴ This agreement can of course apply as well to a plural participle when it is referring to two singular head nouns, e.g. πρ[άγμ]ατα καὶ ζημιώματα παρὰ [τῶ]ν εἰρημένων [Θ]ε[οφίλ]ης τε [καὶ] Διοσκόρου (VI A.D., *P.Cair.Masp.* III 67279.23–24)

however, as also noticed by Manollesou,⁴⁵ this lack of agreement should be rather attributed to the analogical reformations of endings in the Post-Classical period; in (6), for instance, the participle τῆθέντες only apparently fails to agree with the head noun αὐτοῦς, with τῆθέντες representing a new (analogical) accusative ending:⁴⁶

(6) ἀπὸ δὲ τοῦ νῦν ἐπιτελ(έσειν) αὐτοῦς Πάπον καὶ Πτολεμαίον)
 ἀμπ(ελ) οἶνοπ() τὰ τῆς φυ[τε]ῖ[α]ς τῶν δύο ἀρουρῶ(ν)
 τῆθέντες τὸ φυτόν ἐν . . . (I B.C., *BGU IV* 1122.14–15)
 from now on, Papos and Ptolemaios shall complete ... the vine-
 yard (work) ... wine (including?) the planting of the two arourae,
 putting the plant in ...

The second difference between finite and participial relative clauses lies in the fact that participles cannot express all functions of the Accessibility Hierarchy⁴⁷ as finite relative clauses do,⁴⁸ but can only express syntactic subjects. The second constraint can, in my view, be linked to the first: as the case of the participle is not assigned on the basis of its function in the relative clause, the possibility of expressing different syntactic functions could lead to ambiguity, as these would not be recoverable on the basis of the morphological information provided.⁴⁹

⁴⁵ I. Manollesou, “From Participles to Gerunds,” in M. Stavrou et al. (eds.), *Advances in Greek Generative Syntax: In Honor of Dimitra Theophanopoulou-Kontou* (Amsterdam 2005) 241–283, at 243–245.

⁴⁶ Moreover, the agreement of the participle depends, in papyri, on factors such as the native language of the writers and their educational level.

⁴⁷ Keenan and Comrie, *Linguistic Inquiry* 8 (1977) 63–99.

⁴⁸ Not all the functions of the Accessibility Hierarchy are however equally attested in the papyri, cf. E. Cattafi, “The Accessibility Hierarchy in Post-Classical Greek between Syntax and Sociolinguistics,” in *Subordination and Insubordination* 209–236, at 219.

⁴⁹ This is similar to what happens in Hebrew, but, for instance, different from Turkish, where the participle does not agree with the case of the head noun, and a suffix of case refers to its syntactic function in the relative clause. Although languages can tolerate a certain degree of ambiguity, when the participle can relativise multiple functions, strategies of disambiguation (e.g. connected to additional morphology or word order) are generally present in the language.

Therefore, the prototypical choice between the participial and the finite strategy is located in the subject position: for this reason, as was done by Hayes, the finite relative clauses considered in the comparison will also belong to the same category of subject relative clauses.⁵⁰

3. *Types of participial relative clauses*

On a formal level, relative clauses can assume different syntactic configurations based on the presence (“headed relative clauses”) or the absence (“free relative clauses”) of a head noun.⁵¹ In Ancient Greek, the head noun can be external or internal to the relative clause in the finite constructions, while, in the case of non-finite constructions, the head noun can appear before or after the relative participle.⁵²

Let us consider some examples stemming from the same document, a long petition in which Dionysia addresses the prefect Pomponius Faustianus about a monetary dispute with her father Chaeremon.

⁵⁰ It is however worth noting that examples of non-subject finite relative clauses might also compete with participial clauses. For example, compare the participial clause in (7) τῆς ἐπιστολῆς τῆς γραφείσης σοι (“the letter written to you”) with the non-subject finite relative clause in ἀντιφώνησιν ἧς ἔγραψα αὐτῷ ἐπιστολῆς (“copy of the letter which I wrote to him,” *P. Oxy.* III 531.26–27, II A.D.). A comprehensive comparison of the two structures including also these other functions would pose additional methodological challenges about which specific clauses can be considered actually equivalent. For instance, can only passive participial constructions with an expressed agent as in (7) strictly compete with finite relative clauses with an active verb? Unlike subject finite clauses, should we include in the dataset only non-finite relative clauses when a correspondent participial type is attested in the corpus?

⁵¹ See de Vries, *The Syntax of Relativization* 18–63, for a typological approach; A. Kirk, *Word Order and Information Structure in New Testament Greek* (Leiden 2012) 184–196; and Perna, *Studies in Greek Linguistics* 33 (2013) 320–333, for discussion of these categories in Ancient Greek.

⁵² Also this aspect shows significant cross-linguistic variation: for instance, in Romance languages participial relative clauses can only be postnominal, see G. Cinque, *The Syntax of Adjectives. A Comparative Study* (Cambridge [Mass.] 2010) 70, quoted in Sleeman, *Oxford Research Encyclopedia*.

In postnominal participial relative clauses, the head noun ἐπιστολῆς is placed before the participle γραφεΐσης:

- (7) τῆς ἐπιστολῆς τῆς γραφεΐσης σοι ὑπὸ τῆς στρατηγίας ἀντίγραφον
(II A.D., *P.Oxy.* II 237.32)
the copy of the letter written to you by the stratega

In prenominal participial relative clauses,⁵³ the head noun ἐπιστολὴν is placed after the participle γραφεΐσάν:

- (8) τὴν περὶ τούτων γραφεΐσάν σοι ὑπὸ τοῦ στρατηγοῦ ἐπιστολὴν
(237.10)
the letter written to you on the subject by the strategus

In free participial relative clauses, the participle γραφεΐσι is not referring back to an antecedent but is employed as a substantivate participle:⁵⁴

- (9) φροντίσης ἀκόλουθα πράξαι τοῖς π[ε]ρὶ το[ύ]του πρότερον γραφεΐσι
ὑπὸ Λογγαίου Ρούφο[υ] (237.34)
see that the matter is decided in accordance with the previous instructions of his excellency Longaeus Rufus

The distribution of the different syntactic types is outlined in Table 1: in both participial and finite relative clauses, the headed types are always more frequent than the free counterparts.

	Externally-headed	Internally-headed	Free
Finite RCs	395 (67%)	99 (17%)	94 (16%)
	Postnominal	Prenominal	Free
Participial RCs	8014 (42%)	6980 (36%)	4227 (22%)

TABLE 1: Types of finite subject relative clauses and participial relative clauses

The proportions of the headed types appear quite different: in finite relative clauses, externally-headed relative clauses are here almost four times more numerous than the internally-headed counterparts, while a more balanced distribution can be found between postnominal and prenominal participial clauses. In other words, while the pronoun and the participial strategy can

⁵³ See Fauconnier, *JGL* 14 (2014) 157–160, for a discussion of these constructions in Classical Greek.

⁵⁴ On this see W. A. Stevens, “On the Substantive Use of the Greek Participle,” *TAPA* 3 (1872) 45–55.

relativise all the different types of relative clauses, they show different preferences with respect to the syntactic configurations that they assume.

4. *Presence and position of the article: contexts of ambiguity*

As noted by Mugler,⁵⁵ the history of the attributive participle in Ancient Greek is strictly linked to that of the article. The range of variation of participial clauses involves not only the position of the participle with respect to its head noun, but also the presence⁵⁶ and position of the definite article. Moreover, in addition to the participial form, its head noun too can be accompanied or not by the article.⁵⁷

This leads to variation among different possible constructions: without the article preceding the head noun or the participle (10), with the article preceding the head noun but not the participle (11), with the article preceding the participle but not the head noun (12), and with the article preceding both the head noun and the participle (13):

(10) ἀντίγραφα ἐπιστολῶν δύο γρα[α]φεισῶν μοι (II A.D., *P.Achm.* 8.7)
copies of two letters written to me

(11) ταύτην δέ σοι τὴν ἐντολὴν ὑπ' ἐμοῦ ἰδίῳ[ι]ς γράμμασι γρα[φε]ῖσαν ἐπιδίδωμι (IV A.D., *P.Ammon.* II 27.21–22)

I deliver this order to you, written by me in my own hand

(12) Ἡρᾶς Πausιρίωνος ὁ καὶ τὸ σῶμα γράψας (II A.D., *PSI IX* 1030.27–28)

Heras, son of Pausirion, who also wrote the contract

(13) τὰ γράμματα τὰ γραφέντα εἰς κοινὸν ἐμοί ται καὶ προέδρω (III A.D., *P.Panop.Beatty* 1.193)

⁵⁵ Mugler, *RPhil* 16 (1942) 147.

⁵⁶ For instance, in examples (6) and (7) the relative participle was accompanied by the article, but this was not the case in (4).

⁵⁷ The behaviour of the article in participial constructions in documentary papyri was investigated from a cartographic perspective by M. Callens, *'Poly'-Definiteness. Windowing for Definiteness in Poly-Articulated Participial Constructions in Post-Classical Greek* (thesis Univ. Gent 2023), who calculates that poly-articulate constructions in postnominal participial relative clauses, i.e. constructions with a double article such as τῆς ἐπιστολῆς τῆς γραφείσης, amount to only 5% of the occurrences in the corpus.

the letters addressed jointly to me and to the president

Perna⁵⁸ provides some observations on the behaviour of the article in the participial strategy in relation to the type of relative clause.⁵⁹ In particular, she states that all free relative clauses are accompanied by the article; in contrast, the article is never present in appositive relative clauses, which exhibit, therefore, the same structure as a conjunct participle. The scenario is more complex in the case of restrictive relatives, where the article is present in the majority of cases, but the participle can appear without the article both in postnominal and prenominal constructions.

The situation described by Perna for relative participles in Classical Greek is less clear-cut when we move to documentary papyri of the Post-Classical period. First, in free relative clauses, although the participle is usually accompanied by the article, there are exceptions:

- (14) [Βελλίκιος] Περεγρεῖνος στρατηγῶ καὶ προπολ[ιτευομ]ένοις Ὀξυρρυχίτ[ου χ]αί[ι]ρειν (III A.D., *SB XVIII* 13932.17)⁶⁰

Bellicius Peregrinus to the strategus and leading citizens of the Oxyrhynchite, greetings

Second, non-restrictive relative clauses can also be introduced by the article:

- (15) ἵνα ταῦτα καταβάλῃς ἐπὶ τὸν εἰρημένον Φιλόξενον τὸν καὶ δεδωκότα [τὰ α]ὐτὰ τρία νομίσματα τῷ εἰρημένῳ Ἀπολλωνί[ῳ] (V A.D., *P.Oxy.* XVI 1932.8–9)

So that you may pay them to the aforementioned Philoxenus, who gave the three gold coins to the aforementioned Apollonius

The lack of coherence in the use of the article with participles can also be seen in its variation within a text: in two almost identical examples of participial relative clauses in the same text,

⁵⁸ Perna, *La frase relativa* 67.

⁵⁹ The role of the article in Greek participial structures is also analysed by A. Pompei, *Il participio come nome e come aggettivo. Il caso del greco antico* (Rome 2013).

⁶⁰ προπολ[ιτευομ]ένοις can also be intended as a lexicalised participle, see below.

a marriage contract from the Late Antique period, the first structure (16a) involves a participial relative construction with the structure Noun-Article-Participle and the second (16b) has the structure Noun-Participle.⁶¹

(16a) Χριστοδότη τῇ σὺν θεῷ ἐσωμένη αὐτο[ῦ] συμβίῳ (VI–VII A.D., CPR I 30 fr.2.9–10)

Christodote, who will be his spouse with God's will

(16b) Χριστοδότης σὺν θ(εῷ) ἐσωμένης νύμφης Μεγάλου τοῦ λαμπρο(τάτου) (fr.2.41–42)

Christodote, who will be the spouse of the most illustrious Megalos with God's will

The presence of the article is particularly relevant for the interpretation of the participle as relative or conjunct: when the participle is not in an attributive position, the level of ambiguity between the verbal and adjectival uses of the participle increases.

An important context for ambiguity is the oscillation between a relative and a causal meaning, which is especially present in the illiteracy formula (17). In this formula, which can also be expressed with variation of the participle such as αὐτοῦ ἀγραμμάτου ὄντος, one person is writing on behalf of another, who is illiterate; however, a causal meaning is present, since the person is also writing because the other cannot write. As this constitutes one of the most widespread formulas with the participle in documentary papyri, considering it as a relative participle involves the problem of formulaicity:⁶²

⁶¹ The only different element is here represented by the participle being in the dative in (16a) and in the genitive (16b), although this can hardly be interpreted as a reason of this variation.

⁶² Formulaic participial clauses in documentary papyri can be reduced to several main areas. In addition to the common illiteracy formula, formulae with relative participles include variants of temporal expressions such as τὸ ἐνεστὸς ἔτος and τοῦ διεληθόντος ἔτους, references to letters such as τὰ παρόντα γράμματα, τὰ γραφέντα, τῶν δοθέντων (μοι) βιβλίων, and formulae used in contracts such as χρόνον λογιζόμενον, φόρον νέον καθαρὸν κεκοσκιευμένον, and ὑπατείας τῆς προκειμένης. In turn, there are also finite formulaic relative clauses in a subject position: the ἐὼν ὧσι formula, τῷ δὲ ἀβρόχῳ, τὸ μὴ εἶναι, σήμερον ἥτις ἐστὶ, and ἥτις ἐστὶν κυρία.

- (17) ἔγραψα ὑπὲρ αὐτῶν γράμματα μὴ εἰδῶτων (IV A.D., *BGU XII* 2152.16)

I have written for them who do not know letters

Relative and causal readings are also found beyond this formula: for instance, in (18) the participle ποιήσονται, depending on μοι, can be interpreted as corresponding to a relative clause (“who am very happy”) or to a causal subordinate (“because I will be very happy”). The presence of ὅς (i.e. ὡς) favours here the second interpretation:

- (18) καὶ σὲ δὲ προτρέπομαι ἐπιτρέπειν μοι περὶ ὧν βούλει ὅς ἤδιστα ποιήσονται (II A.D., *P.Brem.* 21.9–11)

and I also ask you to give me orders about whatever you want, as I will be very happy to carry them out

Another context for ambiguity, this time between an adjectival and nominal use of the participle, is the expression of political roles (cf. also (13)),⁶³ a large category of occurrences found mostly in administrative documents: here the participles expressing a political role can assume the function of an apposition rather than a relative clause:

- (19) [Αὐρήλιος Ἑρμόφιλος Ὡρίωνος κοσμητεύσας Ἑρμοπόλεως τῆς μεγάλης ἀρχαίας καὶ λαμπρᾶς καὶ σεμνοτάτης (III A.D., *Stud.Pal.* XX 54.1)

Aurelius Hermophilus, son of Horion, ex-cosmete of the great ancient illustrious and most august city of Hermopolis

Also in these cases, the participle can appear without the article (19) or with the article (20). On a synchronic level, the participle can be considered as fully lexicalised, as proved by the fact that it can be accompanied by an adjective:

- (20) Φλ(αουίω) Ἰωσήφ τῷ αἰδεσίμῳ πολιτ(ευομένῳ) καὶ ῥιπαρίῳ τῆς Ὀξυρ(υγγιτῶν) (V A.D., *SB XVIII* 13596.1–3)

to Flavius Joseph the venerable councilor and riparius of the city of the Oxyrhynchites

⁶³ Rijksbaron, *The Syntax and Semantics* 133, already pointed out that “sometimes a participle can be analysed both as an apposition and a satellite.” He also says that participles that follow a noun usually denote a (semi)permanent feature of the antecedent.

The choice of a participle instead of a noun indicating the political role (e.g. κοσμητής) could have here been made because of the greater ductility of the participle, with the possibility of being inflected by tense: the mark of tense⁶⁴ allows the writer to express synthetically whether the political position was exercised in the past, as in (19), in the present (20), or even in the future (21):

- (21) μετὰ τὴν ὑπατείαν Φλ(αοῦ) Βιβιανοῦ τοῦ λαμπρ(οτάτου) καὶ τοῦ δηλωθησομένου Φαμενώθ κα (V A.D., *SB XVIII* 13596.1)
the year after the consulship of Flavius Bibianus the most illustrious and the one to be appointed, 21 Phamenoth

The participial forms of the verb ἔχω in the papyri also are a source of ambiguity, as they are rarely accompanied by the article and can cover a range of different values, from the more verbal uses with the meaning of “keeping” (22) to more adjectival uses referring to a quality of the head noun (23):

- (22) ὁ προειρημένος Παβᾶνος π[αρατυ]χῶν ἔχων μετὰ χίραξ ξοῖδιον ἀνελεῖν τοὺς χοίρους βουλόμε[νος] (IV A.D., *P.Oxy.* LIV 3771.9–11)
the said Pabanus happened by, having a chisel in his hands, and wanted to kill the pigs
- (23) ἔστιν δὲ σημεῖον τῆς ταφῆς· σινδῶν ἔστιν ἐκτὸς ἔχων χρῆμα ρόδι-
νον (II A.D., *Chr. Wilck.* 499.9–12)
there is an identification mark on the mummy: a linen shroud is on the outside, rose-colored

Since it is especially difficult to distinguish between relative and non-relative uses of postnominal participles when these are not accompanied by the article,⁶⁵ for the purposes of numerical comparison between finite and participial relative clauses I will provide in sections §5 and §6 figures both (i) for participial relative clauses in general and (ii) for those in which the participle is preceded by the definite article.

⁶⁴ Although in the case of participles, as noted by Pompei, *Il participio* 117–120, the value expressed is more aspectual rather than temporal.

⁶⁵ But as we have seen, the presence of the article is not consistent.

5. *Comparison between participial and finite relative clauses: case marking*

As pointed out above, Mugler and Hayes have conducted investigations on the competition between participial and finite relative clauses: we can take these studies as a starting point and verify whether the same factors identified by them as affecting the choice between the two options might be relevant also for the analysis of documentary papyri.

In order to better understand the relationship between participial and finite relative clauses, Mugler highlights three functional categories in which participles directly compete with finite relative clauses, which he attempts to explain:⁶⁶

(i) In the function of ornamental or characteristic epithet, e.g. the formula Ὀλύμπια δώματ' ἔχοντες compared with a similar expression introduced by (τ)οἱ and followed by a finite verb, the variation of case is the relevant feature, as some cases are excluded for metrical reasons.

(ii) In the function of defining persons, things, and institutions, e.g. the participle of ἀνάσσω compared with a relative pronoun and a finite form of the same verb, the finite relative clause shows a preference for the genitive singular and never occurs in the masculine nominative or feminine accusative form.

(iii) In the function of evocation of past events and anticipation of future events (“rappel et anticipation”), e.g. ὃς ἤδη τὰ τ' ἐόντα τὰ τ' ἐσόμενα πρό τ' ἐόντα (*Il.* 1.70, but mostly post-Homeric), a great increase of participles in historiographical texts creates an effect which can be attributed to a conscious decision whereby an apparent “substitution” of relative clauses with participles happens when the subject is relativised. In Herodotus in particular, the choice can be linked to the nominative form of the participles, which is rare in the antecedent of the relative clause.

Although metrical reasons are not pertinent to documentary papyri, the case distribution of the head noun, which in the participial strategy also corresponds to the case of the participle,

⁶⁶ Mugler, *R Phil* 16 (1942) 146–160.

indicated by Mugler as a relevant parameter of variation, can be observed in the two constructions:

	Nominative	Genitive	Dative	Accusative
Finite RCs	34 (11%)	105 (33%)	52 (16%)	126 (40%)
Partic. + Article	1440 (18%)	3242 (40.5%)	989 (12.5%)	2342 (29%)
All partic. RCs	558 (31%)	764 (42%)	146 (8%)	344 (19%)

TABLE 2: Case of head noun in finite and participial relative clauses

In general terms, both finite and participial relative clauses are attested with head nouns marked by all cases. Although the differences encountered in papyri do not justify a choice between the two strategies based on case-marking, the rarity of the nominative as the head noun of finite relative clauses can be confirmed also for the papyrological examples; conversely, finite relative clauses more often refer back to accusative head nouns, whereas the participial strategy is more frequently marked by the genitive case.

6. *Comparison between participial and finite relative clauses: restrictiveness*

Like finite relative clauses, relative participles can be either restrictive (24) or non-restrictive (25):

(24) μετέλαβον πα[ρ]ά τινων ἀπὸ Ἰβιῶνος σήμερον ἐλθόντω[ν] (II A.D., *P.Giss.Apoll.* 9.3–4)

I have learned from men who arrived today from Ibion

(25) Ἰσίδωρος ὁ κ[α]ὶ [νὺν ἀπ]οσταλείς πρὸς ὑποδοχὴν τῶν καμηλαρίων (IV A.D., *CPR XXIII* 28.4–5)

Isidoros, who was once again sent with the task of receiving the camel-drivers

According to Hayes,⁶⁷ restrictiveness is the main factor affecting the choice of participial and finite relative clauses in New Testament Greek: in a subject relative clause with a restrictive meaning, the participle will always be preferred. A complementary distribution can be observed overall in the New Testament, with participles primarily being used restrictively, viz. in 84% of the instances, and finite subject relative clauses primarily being used non-restrictively, in 80% of instances.

⁶⁷ Hayes, *An Analysis of the Attributive Participle* 213–216.

As emerges from Table 3, however, participial clauses in papyri show a different situation: on the one hand, as in the New Testament, the pronoun strategy is mainly used to express non-restrictive meanings. On the other hand, in contrast to Hayes' observations, the participial strategy is also mainly used non-restrictively, although with a more balanced proportion of restrictiveness compared to finite relative clauses. Multiple reasons may account for a higher frequency of non-restrictive relative clauses (both finite and non-finite) in documentary papyri. For instance, 115 finite relative clauses with a subject function in the corpus are introduced by ὅστις, a pronoun normally used in non-restrictive contexts.⁶⁸ At the same time, a common use of participial relative clauses in papyri is in the formula ὁ προκειμένος, “the aforesaid,” which necessarily carries a non-restrictive meaning, as it refers to someone previously identified.⁶⁹

	Restrictive	Non-restrictive
Finite RCs	70 (18%)	324 (82%)
Participial + Article	2484 (32%)	5292 (68%)
All participial RCs	655 (37%)	1124 (63%)

TABLE 3: Restrictiveness in finite and in participial relative postnominal clauses

Moreover, the presence of non-restrictive clauses can be connected to the features of the head noun: as pointed out by

⁶⁸ This observation reflects a broader textual tendency for papyri rather than implying a specific order of choices in production: it highlights a recurring correlation in usage, without assuming that writers first selected the pronoun and only then determined the (non-)restrictive interpretation.

⁶⁹ A reviewer suggests that such examples might be pragmatically restrictive, as they would serve to indicate to the reader that the referent, e.g. Philoxenus in (15), is the one already mentioned in the document, rather than anyone else with the same name. However, this is not the primary function of these expressions in papyrus texts: rather than disambiguating among multiple possible referents, these participial forms (“aforesaid, aforementioned”) refer back to individuals introduced earlier in the same document (Philoxenus was mentioned in line 1 of the papyrus) and thus function as anaphoric markers, serving to maintain referential continuity within highly formulaic contexts.

Nikolaeva,⁷⁰ restrictive relative clauses are generally headed by common nouns, non-restrictive relative clauses by personal pronouns and proper nouns. In the New Testament, the (few) occurrences found by Hayes⁷¹ of non-restrictive participles were connected to proper names such as divine names, proper names of supernatural beings and humans, and personal pronouns. As documentary papyri are particularly filled with mentions of names (cf. (25)), including family members, wrongdoers, possessor of items, and authoritative figures of various kinds, from which subject relative clauses might depend, their presence could account for the participial strategy often expressing non-restrictive meanings.

7. Contexts of direct comparison

The approach of Mugler was focused on individuating specific functional categories in which to conduct a comparison between finite and participial relative clauses. In this section, I also look at some contexts where it is possible to establish a direct comparison in documentary papyri, namely (i) the attribution of names with the verb *καλέω* “call,” and (ii) the use of participial and finite relative clauses in death notices with the verb *τελευτάω* “die,” and I discuss the possible motivating features of the variation between the different constructions.

(i) A first context where finite and participial options are found is the attribution of names with *καλέω*: this can be expressed either by a finite relative clause introduced by *ὅς* or by the participle of the verb. The number of attestations, however, is far from balanced, as the finite option is used only in two occurrences (26, 27), while the participial clause (28) accounts for more than a hundred:⁷²

⁷⁰ I. Nikolaeva, in K. Brown (ed.), *Encyclopedia of Language and Linguistics*² X (Amsterdam 2006) 501–508, at 502.

⁷¹ Hayes, *An Analysis of the Attributive Participle* 216.

⁷² A third option is also available, namely the construction with the relative pronoun and no verb expressed, which is mainly used for aliases.

- (26) ἔγγιστα τῆς διώρυγος, ὃ καλεῖται Παλαι[ᾶ] Διώρυξ (II A.D., *Chr.Mitt.* 316.22)
near the canal, which is called the Old Canal
- (27) ἐν ἀριθμῷ ἀνδρῶν οἱ καλοῦνται ναυτοκολυμβηταί (II A.D., *P.Mich.* III 174.4)
a certain class of men who are called sailor-divers
- (28) [Ἰού]δας ὁ καλούμενος Κίμβερ (II A.D., *P.Yadin* I 18.21)
Judas, who is called Cimber

In terms of text types, (26) is from a contract of will and (27) from a petition addressed to the prefect, while the participle is found in all text types,⁷³ with a prevalence in contracts; moreover, no chronological evolution of a formula is at play, since the two options are attested in the same period. In this case, the finite relative clauses might have been discouraged by the necessity of using a non-active finite form of the verb, while the writers were more familiar with the forms of the participles. Moreover, the case of (27) is quite peculiar: the choice of the finite relative clause could have been influenced by the fact that it was not a proper name to be assigned, as in the prototypical examples with the participle, but the definition of a category.

(ii) The second functional context⁷⁴ involves the verb *τελευτάω*

⁷³ I list here only some other examples of the participial constructions, illustrating its range of applications, from persons to places: ἀπὸ κόμης [καλο]υμέν[ης] Ἀφρο[οδιτ]ῶν (VI A.D., *P.Cair.Masp.* I 67032.12–13), τοῦ γεωργί[ου] Βίκτορος καλουμένου Βησέλικος (VI A.D., *P.Michael* 45.19), τῆς οἰκίας καλουμένης Πκολᾶ (III A.D., *Chr.Mitt.* 172.10), τοῦ ἀγίου εὐκτηρίου [ἄ]ββα Ἰωάννου βαπτιστοῦ καλ[ο]υμένου [Π]εριπάτου (VI A.D., *CPR* IX 32.6–7). The productivity of the constructions extends also to the verb *ἐπικαλέω*: δ[ι]ὰ Διονυσίου τοῦ καὶ Πλάντα ἐπικαλουμένου Λούπου Διονυσίου (II A.D., *P.Ryl.* II 157.2).

⁷⁴ A third context where an alternation is observed, although more indirectly, is the domain of dates: the “present” day can be expressed with a participle as in τῆς ἐνεστώσης ἡμέρας (II A.D., *BGU* III 710.6), but also with a noun further specified with the indication of the date introduced by the feminine form of the pronoun: σήμερον ἥτις ἐστὶν ιθ (II A.D., *P.Oxy.* LXVI 4542.5–6). On this note, R. Mascellari, *La lingua delle petizioni nell’Egitto romano: evoluzione di lessico, formule e procedure dal 30 a.C. al 300 d.C.* (Florence 2021) 333, reports an observation by Bureth, stating that the participle *ἐνεστώσ* remains linked to years, but in the case of the month it is found only before A.D. 138.

in relative clauses, which usually appears in contracts and accompanies a personal name or the indication of a family relation, which constitutes the head noun of the clause. The verb can be introduced by the pronoun ὅς in a finite relative clause (29) or can appear in participial relative clauses (30):

(29) ὑπὸ τοῦ ἀμφοτέρων πατρὸς Λυσιμάχου τοῦ Διδύμου ὃς τετελεύτηκεν (I A.D., *P.Mich.* V 262.14)

by the father of both of them, Lysimachos, son of Didymos, who is dead⁷⁵

(30) Κατιλλίου Οὐαριανοῦ πατρὸς μου τετελευτηκότος ἀδιαθέτου (III A.D., *P.Oxy.* IX 1201.20–21)

to my father Catillius Varianus who has died intestate⁷⁶

The reason motivating this variation is here mainly chronological and situational: the finite forms are earlier, as they are attested only in the first century, and they all belong to two archives, that of Kronion and that of Harthotes. As for the instances with the participles, these date from at least two centuries later, with three examples from the participial group appearing in the archive of Ammonius.

Interestingly, in a passage from the archive of Kronion, both realisations of the formula are given in a pleonastic construction, signaling that the option of the participle was already present at

⁷⁵ The other occurrences of the finite construction, all I A.D., are: τοῦ Λυσᾶ ὑπαρχόντων, ὃς τετελεύτηκεν (*P.Mich.* V 326.61); τοῦ ἐτέρου αὐτοῦ υἱοῦ Ψενκήβκιος, ὃς τετελεύτηκεν (V 322a.2–3); τοῦ ἐτέρου ἡμῶν ἀδελφοῦ Εὐτύχου δευτέρου ὃς τετελεύ(τη)κεν (V 305.18), τοῦ ἐτέρου ἡμῶν ἀδελφοῦ Εὐτύχου δευτέρου ὃς τετελεύ(τη)κεν (26), and τοῦ ἐτέρου ἡμῶν ἀδελφοῦ Εὐτύχου δευτέρου ὃς τετελεύτηκεν (21–22); τῷ ἐμοῦ Ἀρείου πατρὸς Διδύ[μ]ου Εὐηνείου, ὃς ὁμοίως τετελεύτηκεν (*P.Mil.* I 7.15–16) and σὺν τῷ ἐατῆς ἀδελφῷ Ἀρπατοθοῦτι, ὃς τετελεύτηκεν (13–15).

⁷⁶ The other occurrences of the participial construction are, in headed relative clauses: τῷ προκειμένῳ [τετελευτηκ]ότι μου υἱῷ (III A.D., *SB* XX 15188.13); μητρὸς μου? τετελευτηκυῖς ἐπ' ἐμ[οι κλη]ήρονόμωι ἀκολούθως (III A.D., *PSI* X 1101.8–9); ὁ μειζότερος [υ]ί[δ]ος ἐμοῦ τῆς προκειμένης Τεεῦτος τελευτῶν Παπνούθιος τὸ ὄνομα (IV A.D., *P.Lips.* I 28.8–9); in free relative clauses: τοῦ τετελευτηκ(ό)τος (II–III A.D., *P.Oxy.* LIX 3993.24); τῷ τετελευτηκῷ κα[τ' ἀγχι]στειάν διαφέρουσι (IV A.D., *P.Ammon.* II 38.26); τοῖς τῷ τελευτ(ήσαντι) κατ' ἀ[γ]χισ(τείαν) προσήκ[ο]υ[σ]ι (IV A.D., *P.Ammon.* II 41.40)

the time when the finite relative clause was mostly used:

- (31) τῷ τετελευτηκότι ἡμῶν πάντων ἀδελφῶι Λυσᾶτι, ὃς τετελεύτηκεν
(I A.D., *P.Mich.* V 326.47)
the deceased brother of us all, Lysas, who is dead

8. *Extralinguistic factors*

In this section we move to more general considerations, focusing on the role of two extralinguistic factors in the choice of the participle, namely formality and diachrony.⁷⁷

As to stylistic characteristics, the use of participles instead of finite relative clauses can give a different appearance to a text.⁷⁸ This has been observed also in modern texts: e.g., the use of participial relatives in academic discourse shows a significant difference between the soft and hard sciences,⁷⁹ with finite relative clauses being frequent in the humanities, and participial clauses increasing as one moves from the soft to the hard sciences.

In Ancient Greek, some stylistic uses of participles have been noticed in ancient rhetoric;⁸⁰ in terms of register, it was shown by Thoma in an analysis of participles in a fourteenth-century text that, if we compare high-register and low-register versions of the same text, the high versions show a high frequency in the use of participles, as opposed to finite verbs, while in the low versions the situation is reversed.⁸¹ Finally, Breuer has found

⁷⁷ Moreover, there might be a role played by language contact in the distribution of participles: Nardi, *Journal of Historical Sociolinguistics* 14 (2024) 427–471, observes that, in papyri, one third of the participial clauses occur in documents with a Semitic background.

⁷⁸ According to Lehmann, *Der Relativsatz* 157, brevity is one advantage of the relative participle compared to the relative clause, while a disadvantage is the lower degree of variability of the non-finite form.

⁷⁹ B. Gray, *Linguistic Variation in Research Articles: When Discipline Tells Only Part of the Story* (Amsterdam 2015).

⁸⁰ B. L. Gildersleeve, “On the Stylistic Effect of the Greek Participle,” *AJP* 9 (1888) 137–157.

⁸¹ C. Thoma, “Grammatical Metaphor and the Function of Participles in High-register Versions of the *Life of Aesop*,” in A. Georgakopoulou et al. (eds.),

that, in the *Martyrium Pionii*, dating from the third century, biblical verses containing attributive participles are quoted by different characters substituting the participial construction with a finite relative clause, possibly for the sake of stylistic variation.⁸²

To evaluate the attestations of the two constructions in papyri on the basis of formality,⁸³ we can look at all types of participial relative clauses and finite relative clauses in subject position: relative participles seem to be more used in formal than informal texts compared to finite relative clauses.⁸⁴

	Formal	Informal
Finite head-external	346 (88%)	46 (12%)
Participial head-external	7524 (95%)	422 (5%)

TABLE 4: Distribution of finite and participial relative clauses according to formality

The possibility of a diffusion of participial relative constructions over time has been pointed out by López Romero in order to explain the reduced number of (finite) subject relative clauses

Standard Languages and Language Standards: Greek, Past and Present (Farnham 2009) 137–158. Thoma however does not consider attributive participles, but rather adverbial participles.

⁸² J. Breuer, “Subordination and Competing Constructions in Greek Acts of Christian Martyrs: A Case Study,” in *Subordination and Insubordination* 277–300, at 296–297.

⁸³ The labels “formal” and “informal” are assigned manually on the EVWRIT database on the basis of the social distance perceived in each text. Although these labels do not necessarily coincide with “private” and “public” documents in papyrological contexts, private letters usually belong to the “informal” category, while official letters, contracts, and petitions usually belong to the “formal” category.

⁸⁴ In turn, this might be motivated by the necessity of more conciseness in formal texts, or the possibility of more easily accumulating relative clauses in the case of participles; participial relative clauses could have also played a role of building the structure of the texts.

from Homer to Herodotus.⁸⁵ The same tendency seems to continue in the Post-Classical period, as can be observed in Table 5: if we compare the attestations of finite and participial relative clauses according to the chronology of the texts, we see that finite relative clauses with a subject function decrease between the Roman (I–III) and the Late Antique period (IV–VIII), while participial relative clauses increase, showing that diachrony seems to be one of the most important factors in this variation:⁸⁶

Century	I	II	III	IV	V	VI	VII	VIII
Finite	19 (22%)	79 (36%)	107 (27.5%)	47 (13%)	25 (9%)	101 (14.5%)	17 (10.5%)	0 (0%)
Participial	68 (78%)	142 (64%)	282 (72.5%)	310 (87%)	252 (91%)	593 (85.5%)	145 (89.5%)	20 (100%)

TABLE 5: Finite and participial relative clauses distributed by century⁸⁷

Moreover, if we combine the distribution of finite and participial relative clauses, examining both the period and the text types, we can see that the use of participial relative clauses increases in all text types, but especially in contracts. This might be connected to the spread of certain formulae, such as ὁ προκεῖμενος, “the aforesaid,” in this text type:

⁸⁵ López Romero, *Oraciones de relativo* 96: “El nominativo es el caso preponderante salvo en Heródoto. Con todo, sufre un retroceso con el paso del tiempo: en Homero representa el 57,2% de los casos, en Heródoto el 24,8% y en Tucídides el 28,8%. Mugler (1939, pp. 32–33) explica el predominio en términos de accesibilidad: es el caso, dice, cuyas funciones son más sencillas y requieren menos esfuerzo. Al retroceso, en cambio, le atribuye una causa sintáctica: la proliferación de las construcciones de participio atributivo.”

⁸⁶ Also in English academic writing, participles are said to be increasing diachronically at the expense of finite relative clauses: M. Hundt, D. Denison and G. Schneider, “Relative Complexity in Scientific Discourse,” *English Language and Linguistics* 16 (2012) 209–240.

⁸⁷ For both finite and participial relative clauses, when it was not possible to assign a precise date to the papyrus but only a general indication of the period (e.g. 200–350 A.D.), I have picked the earlier of the centuries (thus III A.D.).

	Letters (I–III)	Letters (IV–VIII)	Petitions (I–III)	Petitions (IV–VIII)	Contracts (I–III)	Contracts (IV–VIII)
Finite	39 (31%)	37 (20%)	31 (31.5%)	21 (19%)	124 (29.5%)	128 (11%)
Participial	86 (69%)	151 (80%)	67 (68.5%)	91 (81%)	298 (70.5%)	1062 (89%)

TABLE 6: Finite and participial relative clauses distributed according to text type in the Roman vs Late Antique periods

Finally, it should be pointed out that the rise of participial relative clauses does not correspond to the rise of the entire category of participles in the Post-Classical period: as noted by Manolessou,⁸⁸ some types of participles, such as the predicative participle and some uses (final, conditional) of the circumstantial participle, are actually reduced both in the New Testament⁸⁹ and in the papyri, while other uses, such as absolute participial constructions, significantly expand in the Koine.⁹⁰ We can therefore now add to the second group relative participles as well.

9. *Conclusions*

This paper has investigated the participial strategy in a corpus of Greek documentary papyri. Starting from typological considerations and then moving to Ancient Greek, the degree of equivalence of the participial strategy with the pronominal strategy was determined. The types of relative clauses that can be expressed by the participle were described in syntactic terms, showing also that the pronominal strategy is more widespread in externally-headed constructions in documentary papyri.

It was also seen that the presence and position of the article with attributive participles can considerably vary, and that it is applied less systematically than in Classical Greek: this causes ambiguity in relative participles especially when the participial

⁸⁸ Manolessou, in *Advances in Greek Generative Syntax* 245.

⁸⁹ Where, however, according to Boyer, *Grace Theological Journal* 5 (1984) 176, one word every twenty is still a participle.

⁹⁰ For the use of the participle with the accusative in complementation in the papyri, see Bentein, *JGL* 17 (2017) 3–36.

forms are not preceded by the article, in expressions such as the illiteracy formula or the stating of political roles.

Following the work of Mugler and Hayes, parameters such as the case-marking of the antecedent and the restrictiveness of the relative clause were investigated, showing that an interpretation of the choice between the two constructions only according to these features cannot be supported in the case of documentary papyri. Both participial and finite relative clauses in subject position are particularly used with a non-restrictive function, which can be linked to the character of the head noun.

Some functional contexts where the two constructions directly compete were observed in the papyri, and extralinguistic factors were also taken into account: in stylistic terms, participial relative clauses are more used in formal than in informal texts. Finally, an important element turns out to be the diachrony of the attestations, both in a specific formula and in general terms, with participial relative clauses increasing from the Roman to the Late Antique period, especially in contracts, in contrast to finite relative clauses. More research is needed in order to understand whether these findings are relevant only for documentary papyri or can be extended to other stages of the language, and how the situation evolves in the subsequent periods of Greek.⁹¹

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