

A constructional approach to the marker *(o)pu* [(ó)που]: Diachronic evidence for the relativizer to adverbial polysemy

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Περίληψη

Στην εργασία αυτή ερευνούμε τη διαχρονική εξέλιξη του δείκτη (ó)που από αναφορική σε επιρρηματική λειτουργία κατά τη Μεσαιωνική Ελληνική, υποστηρίζοντας ότι η επανάλυση πραγματοποιείται μέσα από μεταβατικές χρήσεις που καθορίζονται εξίσου από συντακτικά και πραγματολογικά χαρακτηριστικά και επιδέχονται διπλή ερμηνεία. Η συνύπαρξη συντακτικο-πραγματολογικών παραγόντων στα κείμενα για την αλλαγή περιβάλλοντα αναδεικνύει την ανάγκη να αναλυθούν αυτά ως γραμματικές δομές. Η διαχρονική έρευνα σε σώματα κειμένων της μεσαιωνικής δημόδους ενισχύει εμπειρικά την ύπαρξη τέτοιων μεταβατικών δομών, δείχνοντας ότι η επιρρηματική λειτουργία εξαρτάται από την εμφάνιση και καθιέρωσή τους. Οι μεταβατικές δομές αφορούν και την ανάλυση του (ó)που ως πολυλειτουργικού γραμματικού δείκτη αφού ενσωματώνουν τα κοινά χαρακτηριστικά διαφορετικών συντακτικών λειτουργιών.

Λέξεις-κλειδιά: γλωσσική αλλαγή, αναφορικές προτάσεις, επιρρηματικές προτάσεις, μεταβατικές γραμματικές δομές, γραμματική πολυσημία, διαχρονική γραμματική των δομών

1 Introduction

The gradualness of linguistic change is widely accepted in cognitive linguistic and constructional frameworks (e.g. Traugott and Trousdale 2010), where it is captured via concepts such as “bridging contexts” (Heine 2002), “critical stages” (Diewald 2006), “transitional contexts” (Fried 2009), or “critical constructions” (Smirnova 2015). In the present work we examine one such transitional construction in the history of the grammatical marker *(o)pu*, which carries relativizer, complementizer and adverbial connective functions at least since Medieval Greek. We focus on the transition from relativizer to adverbial connective in the medieval period. Analyzing corpus data, we identify crucial contexts for this change and further argue that they should be analyzed as constructions.

A constructional analysis of the source, transition, and output of the change also provides glimpses into the functional unity of the *(o)pu* category which has not been uncontested. Indeed, studies in autonomous syntax frameworks focus on one or another of its syntactic functions treating them as unrelated (e.g. Theophanopoulou 1985, Holton, Mackridge and Philippaki 1997, Alexiadou 1998). From different theoretical viewpoints, others acknowledge, implicitly or explicitly, a relationship among functions (e.g. Christidis 1986, Mackridge 1985, Veloudis 1999, Nicholas 1998, Katis and Nikiforidou 2005, Nikiforidou 2015). We argue that such polysemy is more adequately analyzed as inhering in particular constructional contexts, associated

with specific syntactic and discourse-pragmatic features and related to each other through transitional contexts like those we identify here.

1.1 *(O)pu before the medieval period*

(O)pu derives from Ancient Greek *hórou* ‘where’, a locative anaphoric adverb (Liddell-Scott 1977, Andriotis 1990), also interpreted as temporal already in Classical Greek. Moreover, dictionaries note adverbial uses of manner and cause (e.g. Liddell-Scott 1977), though restricted in the case of manner to fixed expressions (e.g. *οὐκ ἔσθ’ ὅπου* ‘there is no way to’).

In early and later Middle Greek (from Hellenistic Koine to the 5th century A.D.), *(o)pu* acquires “core” (subject and object) relativizing functions. Nicholas (1998: 210-211) suggests the following path for this change: locative > abstract location > general oblique role > subject role with animate reference. However, core relatives are rare (Bakker 1974 and Nicholas 1998: 205-208 find merely three indisputable examples from the 5th century and a bit later) and thus insufficient to motivate reanalysis toward a core relativizing function yet. Moreover, Nicholas (1998: 203) notes their absence from the papyri (3rd c. B.C. to 6th c. A.D.), the most vernacular texts of the middle period. Similarly, Kriki (2013: 429) cites only one, disputed in fact, such instance in the papyri and only uses close to the original locative anaphoric function (430-434). Such findings do not support general relativizer or adverbial uses in that period.

1.2 *(O)pu in the medieval vernacular; the corpus*

Tracing relativizer or other uses of *(o)pu* in the medieval period is obstructed by the lack of vernacular texts from the 6th to the 11th centuries (Manolessou 2004).¹ We thus examine uses of *(o)pu* as a relativizer and adverbial connective in vernacular texts from the 11th to the 17th centuries. Consistently with the developments outlined above, we consider use of *(o)pu* as a general (non-adverbial, non-locative) relativizer to develop after the 5th c. A.D., and we argue that it is *productive* use of *(o)pu* as a relativizer for all anaphoric functions which motivates the rise of the adverbial connective in medieval Greek through particular transitional constructions.

Our analysis relies on two corpora constructed from texts available at the Center for the Greek Language (<http://georgakas.lit.auth.gr/dimodis/>). They represent two historical periods, 11th to 15th and 16th to 17th centuries, each consisting of 95,000 words and proportionate amounts of poetic and prose texts. All spelling variants of *(o)pu* (see (1)) were examined with respect to appearing in relativizing or adverbial connective functions.

(1) *οπού, άπου, όπου, όπου, που, όπου, που, άπου, π(ό)χεις, όπου(ώρισεν), όπου*

We begin with a qualitative analysis of our data and then proceed to a quantitative one.

¹ Scholarly texts that are available remain close to Classical Greek (cf. Kriaras 1997, 2000 and Kriki 2013 on the diglossia prevailing since the period of Hellenistic Greek).

2 (O)pu as a relativizer and adverbial connective

2.1 Extension of the relativizer uses

In the texts of the vernacular, especially (but not exclusively) of later centuries, (o)pu appears to have extended to all kinds of relative clauses. Examples (2)–(3) illustrate object relatives, (4)–(5) subject relatives and (6)–(8) oblique relativization (cause, instrument and partitive, respectively).

(2) *Και παρευθύς ο πραγματευτής επήρε τα ξύλα **οπού** είχε, τα μυριστικά,....*
'And immediately the merchant took the woods **that** he had, the aromatic ones...'
(Σιντίπας, 11th c.)

(3) *Ἐγραφεν εἰς τὴν γραφὴν τὴν λύσσαν **ἀποῦ** ἐκίνησεν ὁ μιαρὸς βασιλεὺς εἰς τὰς ἀγίας εἰκόνας*
'he wrote in the text the fury **that** the unholy king started against the icons'
(Κλίνη Σολομώντος, 16th c.)

(4) *ἔχω τὸν θεὸν κριτὴν **ὀποῦ** θέλει ποίσειν κρίσιν*
'I have God as judge, **who** will judge (me)'
(Εξήγησις της γλυκειάς χώρας Κύπρου, 15th c.)

(5) *νὰ σκοτώσω τὸ σκύλλον τὸν ψωριάρη **ὄπου** πόντισεν τὸ μαργαριτάριν*
'(me) kill the miserable dog **that** dropped the pearl into the sea'
(Εξήγησις της γλυκειάς χώρας Κύπρου, 15th c.)

(6) *βλέπουσι ἕναν παράδοξον θαῦμα **ἀποῦ** ἐξέστησαν ὅλοι*
'they see a strange miracle (**because of**) **which** they all marveled'
(Κλίνη Σολομώντος, 16th c.)

(7) *Το γκόλφι της εκκλησίας το μεγάλο **οπού** ελειτούργουνα*
'the big chest ornament of the church (**with**) **which** I conducted mass'
(Η διαθήκη του Γαβριήλ Σεβήρου, 17th c.)

(8) *καὶ Ἀναξίμανδρος καὶ ὁ Ξενοφάνης καὶ ὁ Φιλόλαος, **ὀπού** τίς λέγει ὅτι ...*
'and Anaximandros and Xenophanes and Philolaus, (**of**) **whom** one says that...'
(Παλαιά τε και Νέα Διαθήκη, 16th c.)

Examples (6)–(8) further highlight an aspect of (o)pu relativization perhaps unnoticed in the other examples: as an uninflected invariant form, (o)pu instantiates “-Case relativization” (Comrie and Keenan 1979) and may allow for underspecified semantic relations with the head. While the subcategorized arguments in examples (2)–(5) impose a unique (subject or object) interpretation, in examples

(6)-(8), the absence of an explicit preposition makes interpretation context-dependent and thus open to variation.

The distinction between restrictive and non-restrictive relatives (e.g. Lambrecht 1988) is also relevant for our discussion. Non-restrictives have an anaphoric (rather than modificational) function, entailing that the antecedent of the proword is syntactically a maximal category. In terms of discourse-pragmatic properties, they “accept some entity as having been fully identified on its own, and add some comment, or otherwise advance the discourse in a way that refers back to that entity” (Fillmore 1989). In one type of constructional representation (Fried 2015) we can represent the basic syntactic and pragmatic features of non-restrictive relatives as in Figure 1.

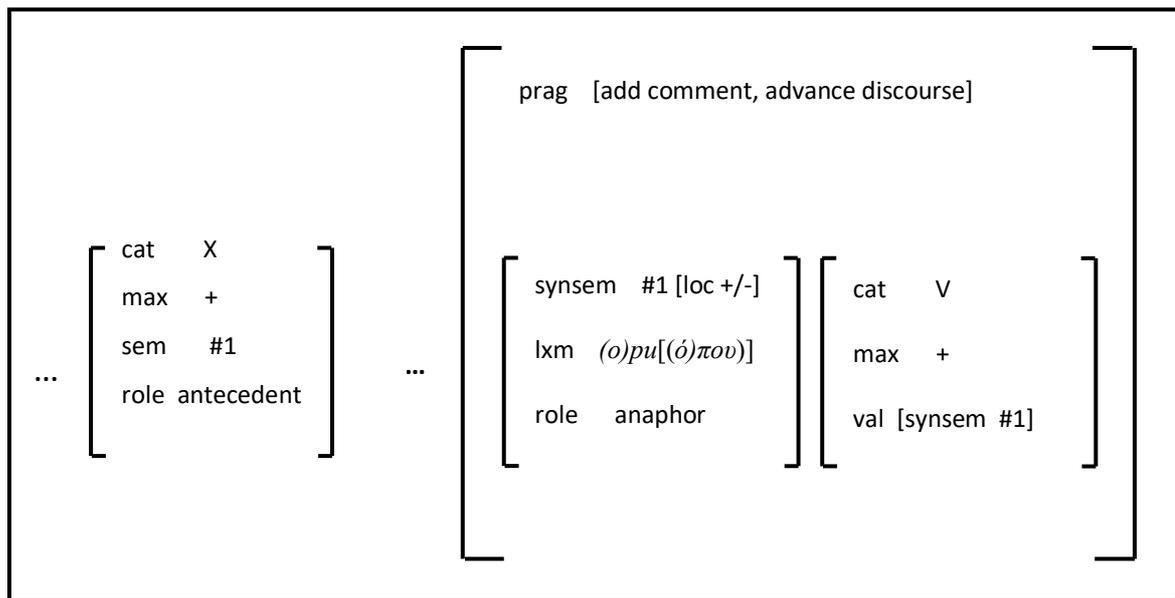


Figure 1. Non-restrictive relative construction

Straightforward specifications in the Figure include the anaphor-antecedent roles, which capture the relation between the relativizer *(o)pu* and an antecedent in the preceding clause, necessarily a maximal category [max +]. The sem(antics) of the antecedent and the anaphor are naturally the same (cf. the identical index #1). The specification [loc(al) +/-] conveys that this is a representation of both subject relatives, where *(o)pu* instantiates locally the subject argument, as well as object and other types of relativization, where *(o)pu* instantiates an object or another embedded valence requirement of the relative clause (in recognizing a difference between subject and non-subject relatives, we follow Sag 1997: 23, 25). Finally, the prag(matic) attribute captures the discourse-pragmatic function of non-restrictives outlined above.

Figure 1, however, also incorporates less straightforward assumptions relating to the syntactic integration of non-restrictives with their antecedent. On the basis of syntactic tests (*one* pronominalization, extraposition, stacking, parenthetical intervention), McCawley (1988: 418-27) concludes that the more likely structure is

one in which the antecedent and the non-restrictive do not make up a constituent. This is contested by Arnold (2004) (also Chatsiou 2010 for Modern Greek) who proposes that the structure of restrictive relatives can be extended to non-restrictives. Without taking an irrevocable stance, our analysis aligns with the non-constituency option on the basis of examples showing the relative freely separated from the antecedent - by a whole line (example (9)) or a period or question mark (example (10)). This distancing flexibility indeed facilitates the development to adverbial connective we outline below.

(9) *εσέναν και την αλεπούν την μακρουραδάτην,*

.....

πού πνίγει τα ερίφια και τα μικρά αρνία

‘you and the fox with the long tail,.....**which** throttles the young goats and lambs’

(Διήγησις παιδιόφραστος των τετραπόδων ζώων 188-90, 14th c.)

(10) *να φυτευτεί τέτοιο δέντρο, πώς στην καρδιά σου αφήκε; **Οπού** ‘χει φύλλα βλαβερά,...*

‘How did he allow for a tree like that to grow into your heart? **Which** has harmful leaves...’

(Ερωτόκριτος A 163-4, 17th c.)

2.2 From relativizer to adverbial connective: The transitional constructions

Some of the non-restrictive relatives - fewer in the early vernacular period and more frequent later (see section 3) - have special features, illustrated in examples (11) - (13):

(11) *Ὁ Ἔρων ἔναι συνεργός καὶ βοηθός ’ς ἐμένα*

ὀπού ἤξεύρει πόσα ἐκακοπάθησα διὰ σέναν εἰς τὸν κόσμον

‘Eros is my accomplice and helper, **who/since** (he) knows how much I endured for you in the world’

(Λίβιστρος και Ροδάμνη, 13th – 15th c.)

(12) *πῶς δύνεσαι τὸν κόσμον νὰ κοιτάξεις*

σὲ τόσα πλήσια βάσανα, καὶ δὲν ἀναστενάξεις,

ὀπού ῥχονται καθημερνὸ καὶ βρίσκουσιν ἐμένα;

‘how can you stand to look at the world in so many hardships, without sighing, **which/although** (the hardships) come and find me daily?’

(Κρητικός πόλεμος, 17th c.)

(13) *Σὲ σκότισην ἀμέτρητη, σὲ βάσανο περίσσο,*

*καθὼς μὲ βλέπεις βρίσκομαι, **ἀποὺ** νὰ τὸ μετρήσω*

δὲ μοῦ ’ναι μπορεζάμενο, κι ἀληθινὰ φοβοῦμαι

‘In great darkness, in much hardship, as you can see, I find myself, **that/so that** I cannot count it, and I’m really afraid’

(Ερωφίλη 77-79, 16th c.)

Examples (11) and (12) contain subject relatives, where the valence requirements of the relative are all locally satisfied; the relativizer instantiates *in situ* the subject argument assigning a [NP VP] structure to the relative clause (see Sag 1997: 23). Additionally in (11), where the verb of the relative is transitive, the object of *ἠξέυρει* ‘knows’ is also present in the clause. Example (13) contains an object relative, assigning a [NP S] structure (Sag 1997: 25), whose valence requirements are nevertheless still locally satisfied due to the resumptive pronoun *τὸ* ‘it’. Syntactically, therefore, the non-restrictive relatives in these examples are self-standing, clausally delimited units. Pragmatically, now, their content is completely known to the reader from the preceding context. In example (11) a narrative of the trials and tribulations of the hero has preceded, in (12) the hardships referred to in the appeal to God are totally given, while in (13) the relative essentially rephrases the preceding line.

In such contexts, we suggest, the relative is not necessarily interpreted as anaphoric to a constituent in the preceding clause, although such a constituent *is* available and the construction is still an instance of relativization sanctioned by the constructional schema in Figure 1. However, given the “independent” clause nature of the relative, such examples support a Quantity-based inference along the lines of ‘find some non-redundant interpretation for the otherwise repetitive, given and in this sense redundant content of the relative clause’. In turn, this motivates the reinterpretation of the relative as expressing another type of connection between the two clauses, i.e. a contextually-derived, adverbial kind of meaning, illustrated by the double glossing in the examples above. In accordance with the indeterminate character of the (*o*)*pu* relativizer, the exact interpretation is context-dependent and hence open to different adverbial relations such as cause (11), concessiveness (12), and result (13).

The examples above correspond, therefore, to the bridging or critical stage for the transition at hand, including both pragmatic and syntactic specifications; it is only in this conglomerate of features that the relevant implicature can arise, while blocked when one of these features is missing (examples (14) and (15)).

(14) *Ἐνα παιδί που σπούδαζεν έκλεψε πινακίδα...*

‘A child, **who** was going to school, stole a small tablet...’

(Αισώπου μύθοι, Μύθος κλέπτου παιδίου, 16th c.)

(15) *καί ἦρε τοὺς Ἰουδαίους καί παίρνει τὰ τριάντα ἀργύρια ὅπου τοῦ ἔταξαν*

‘And he found the Jews and he takes the thirty silver coins **which** they promised him’

(Παλαιά τε και Νέα Διαθήκη, 16th c.)

In example (14) all valence requirements are locally satisfied (subject relative with intransitive verb) but the content of the relative is not given, as the sentence is the first in the myth and the relative provides new information about the referent. Conversely, in example (15) the content of the relative is both hearer-old and discourse-old, but since this is an object relative (without a resumptive pronoun) valence requirements are not satisfied locally. Predictably, none of these examples allows for a non-relative, adverbial interpretation.

The co-presence of syntactic and pragmatic requirements in the licensing contexts strongly suggests that these contexts should be represented as constructions. The transitional construction varies only minimally from the non-restrictive relative construction above, but it is sufficiently entrenched in medieval texts to be a distinct construction (see section 3). We can thus represent it as in Figure 2.

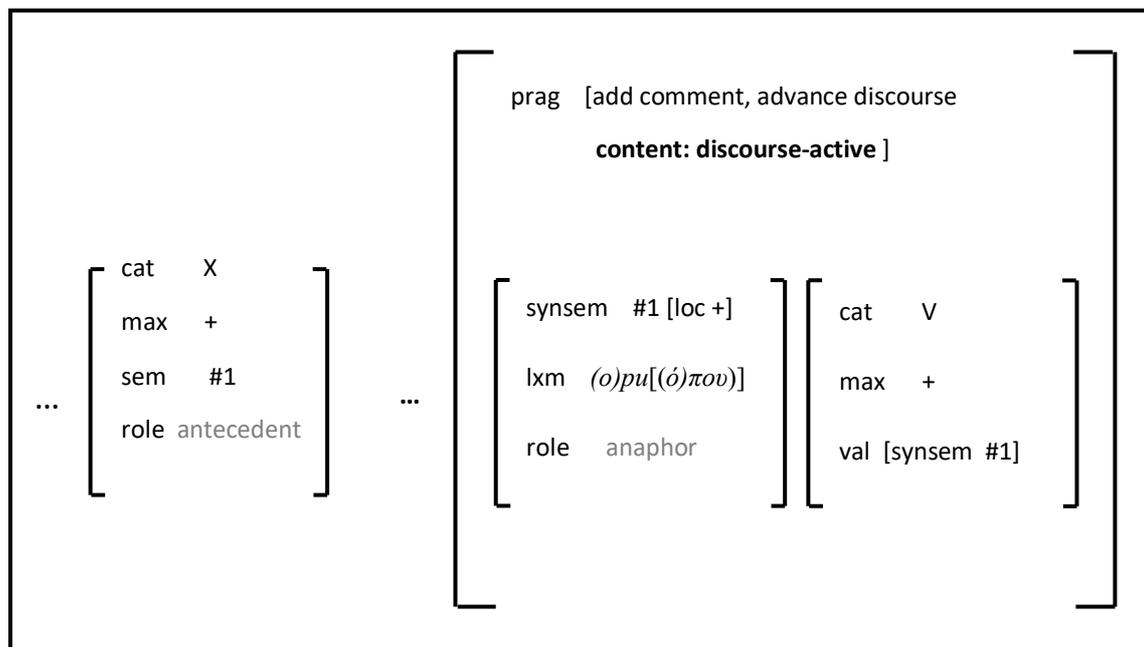


Figure 2. Transitional construction

The crucial differences from Figure 1 relate to: a) the value of the [loc(al)] feature now constrained to [+] since all valence requirements should be satisfied within the relative, and b) the prag(matic) attribute, now necessarily constrained to information characterized as *discourse-active*; this feature, elaborated in Lambrecht (1994), includes both ‘hearer-old’ (known by the addressee) and ‘discourse-old’ (evoked in preceding discourse) information - and is thus fully appropriate for characterizing the content of the clauses at hand. In this constructional configuration, the anaphoric relationship (a possible antecedent for *(o)pu* is still available in the matrix clause) is weakened, as represented iconically by the grey color of the antecedent and anaphor values. In other words, transitional examples like (11) – (13) are licensed both by the more general construction in Figure 1 and by its more specific and restricted variant in Figure 2; the latter inherits the non-restrictive relative construction and at the same time features additional properties.²

The last stage in the development is illustrated by examples (16) - (17), where the main clause no longer contains a suitable antecedent and the only possible interpretation is adverbial; the exact adverbial meaning (e.g. cause, result,

² In constructional frameworks, the grammar of a language is seen as an inventory of constructions organized in networks, which capture their formal and/or semantic and functional overlap. The structuring principle is *inheritance* (Kay and Fillmore 1999, Goldberg 1995; Fried 2015), which refers to hierarchical relations where the most general pattern, with all its formal and functional features, is inherited by more specialized and restricted variants.

concessiveness/contrast, temporal), as always, is not *lexically* expressed through the marker but remains context-dependent throughout.

(16) *Καὶ ἀποστότε πλέον οὐδὲ ὁ ἀφέντης ἐκεῖνος οὐδὲ ἄλλος, ἀποὺ εἶναι τόσοι ἀφεντάδες γινομένοι, οὐδένας ἐποκότησε πλέον νὰ κάμει τίποτας βλάψιμον*
 ‘And since then neither that ruler nor anybody else, **although** there have been many rulers, dared do anything bad...’

(Κλίνη Σολομώντος, 16th c.)

(17) *Ξανάστροφα μοῦ φαίνεται πὸς εἶναι γυρισμένος
 ὁ ὑψορόφος οὐρανὸς κ’ εἶναι σκοτεινιασμένος,
 ὀποὺ τῆ χώρα μου θωρῶ κ’ οἱ Χριστιανοὶ χαθῆκα*
 ‘The high sky seems to me to have turned upside down and be dark, **since/now** that I’m looking at my country and the Christians are gone’

(Κρητικὸς πόλεμος, 17th c.)

3 Quantitative analysis of the data

Results on the frequency of different *(o)pu* uses are presented in Table 1.

	11 th - 15 th c.	16 th - 17 th c.	Total	Change %
Restrictive relatives	173	498	671	+287
Non-restrictive relatives	107	293	400	+274
Headless relatives	43	30	73	- 70
Transitional contexts	19	89	108	+468
Adverbial connective	0	24	24	-
Unclear	5	15	20	-
Total	347	949	1296	273

Table 1 | Relativizer and adverbial *(o)pu* instances in the corpora

We notice, for one, the near tripling of the overall use of *(o)pu* in the later period. A similar increase holds for restrictive and non-restrictive relatives (though the former are more frequent in both periods). Headless relatives, a common use in the Hellenistic period (see 1.1), are more restricted and also diminish in the later period. The notable proportion and increase of restrictive and non-restrictive relatives indicates the generalizing to all relativizing functions – something not yet apparent in the middle period, as noted above. Importantly for our purposes, transitional contexts

also appear, in fact increasing dramatically in the later period (468%), while adverbial uses appear only in the later period.

Such results are certainly consistent with the development from relativizer to adverbial connective as sketched above. They show that adverbial uses a) follow the establishment of relativizer *(o)pu* as a productive and generalized function, and b) follow the appearance and correlate with the increase of transitional contexts, which motivate the rise of adverbial meanings. They are also consistent with the late(r) appearance of subject and object relatives compared with the earlier locative, temporal, and oblique role relativization (see 1.1), since the current account presupposes a full development of all relativizing functions; indeed, most transitional contexts in our data involve subject and object relatives. The dependence of the adverbial on the relativizer function is further evidenced by the consistently post-posed position of the *(o)pu* adverbial clause, a feature characterizing Modern Greek as well. When considering the absence of truly adverbial uses (besides locatives and temporals which retain an anaphoric function – see 1.1) in the Hellenistic and middle periods, we suggest that the instances of causal meaning in Ancient Greek represent a separate development from the one outlined here; the relativizer to adverbial connective change, which in our account took place in Medieval Greek, gave rise to productive uses that continue into Modern Greek and to a range of adverbial meanings not available in Ancient Greek.

4 Discussion and conclusion

We have motivated the relativizer to adverbial development of *(o)pu* through the gradual entrenchment of one particular transitional context. We analyzed this context as a construction, since it includes both formal (syntactic) and discourse-pragmatic specifications; our research thus illustrates the appropriateness of constructional frameworks for capturing the sanctioning conditions of change, and highlights the explanatory adequacy of the transitional constructions.

In terms of constructional diachronic theory, the shift illustrates typical steps in the creation of a new construction (e.g. Barðal and Gildea 2015: 17-18). Step 1 refers to a given form with its own meaning (whether compositional or conventionalized), starting to be used in certain contexts with an innovative (and not entirely predictable) meaning; this is illustrated by the transitional construction in Figure 2, where the innovative meaning motivates a reanalysis of the syntactic component of the construction (the grey coloring in Figure 2 indeed signals the bleaching of the antecedent-anaphor relationship). Though “invisible to the analyst” (Barðal and Gildea 2015: 17), this step is logically necessary, since the form instantiating the original source construction remains unaltered. The reanalysis (albeit invisible) is empirically supported by the increase of critical contexts (constructions). Although no fixed threshold has been set for the reanalysis of constructions more generally, Giacalone Ramat et al. (2013: 230) note that contexts compatible with both the original and the innovative meanings reach at least 20% of the total occurrences in the relevant period. In fact, *(o)pu* transitional contexts represent 30% of non-restrictive relatives in our data. Finally, in step 3 the original form-function combination

continues to implement the source construction, while the new form and meaning constitute the innovative construction, in our case the adverbial one.

We conclude with a brief note on the appropriate treatment of *(o)pu*'s multifunctionality as a relativizer and adverbial connective since Medieval Greek.³ Treating these uses as unrelated (see relevant references in Introduction) seriously underplays the existence and significance of transitional examples like those identified here and continuing in Modern Greek, e.g. (18).

(18) *Τι ώρα να πάω που να μην ενοχλώ;*

What time should I go **at which/so that** I won't disturb (her)?

(personal communication, November 2019)

On the other hand, studies acknowledging the polysemy of *(o)pu* fall short of recognizing that the overarching semantic or pragmatic feature is not associated with a simple morpheme but a whole construction, whose subordinate clause, whether relative, adverbial (or complement), always follows the main clause and pragmatically involves "left or backward reference" (i.e. discourse-active content). The transitional construction in Figure 2 indeed represents the features shared by relativizers and adverbial connectives (not obvious on a purely semantic basis), lending cognitive reality to the *(o)pu* polysemy.

References

- Alexiadou, Artemis. 1998. "On the structure of Greek relative clauses." *Μελέτες για την Ελληνική Γλώσσα* [Studies for the Greek Language], 18:15-29.
- Andriotis, Nikolaos P. 1990. *Ετυμολογικό Λεξικό της Κοινής Νεοελληνικής* [Etymological Dictionary of Modern Greek]. Thessaloniki: Institute of Modern Greek Studies.
- Arnold, Doug. 2004. "Non-restrictive relative clauses in construction based HPSG". In *Proceedings of the HPSG04 conference*, edited by Stefan Müller, 27–47. Stanford: CSLI.
- Bakker, Willem F. 1974. "Pronomen abundans and pronomen coniunctum: A contribution to the history of the resumptive pronouns within the relative clause in Greek." In *Verhandelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Letterkunde, Nieuwe reeks*, deel 82. Amsterdam: North-Holland.
- Barðal, Johanna, and Spike Gildea. 2015. "Diachronic Construction Grammar: Epistemological context, basic assumptions and historical implications." In *Diachronic Construction Grammar*, edited by Johanna Barðal, Elena Smirnova, Lotte Sommerer and Spike Gildea, 1-49. Amsterdam/Philadelphia: John Benjamins.
- Chatsiou, Kikia. 2010. *A Lexical Functional Grammar Approach to Modern Greek Relative Clauses*. PhD diss., University of Essex.

³ Similar arguments can be brought in relation to the relativizer to complementizer extension, also a development of Medieval Greek. Our data and analysis have not however extended in that direction.

- Christidis, Anastasios. 1986. “Το μόρφημα που σαν αναφορικός δείκτης” [The morpheme *pu* as an anaphoric marker], *Μελέτες για την Ελληνική Γλώσσα* [Studies for the Greek Language], 7:135-48. Thessaloniki.
- Diewald, Gabriele. 2006. “Context types in grammaticalization as constructions.” *Constructions*, Special Volume 1. <http://www.constructions-online.de/articles/specvol1/>.
- Fillmore, Charles. 1989. *On Grammatical Constructions*. Berkeley: University of California, Berkeley.
- Fried, Mirjam. 2009. “Construction grammar as a tool for diachronic analysis”. *Constructions and Frames*, 1(2), 262-91.
- Fried, Mirjam. 2015. “Construction Grammar”. In Artemis Alexiadou and Tibor Kiss (eds), Vol. 2 of *Handbook of Syntax*, 2nd ed., 974–1003. Berlin: Mouton de Gruyter.
- Giacalone Ramat, Anna, Catarina Mauri, and Pierra Molinelli. 2013. “Synchrony and diachrony: Introduction to a dynamic interface”. In *Synchrony and Diachrony: A Dynamic Interface*, edited by Anna Giacalone Ramat, Catarina Mauri and Pierra Molinelli, 1-24. Amsterdam/ Philadelphia: John Benjamins.
- Goldberg, Adele. E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: University of Chicago Press.
- Heine, Bernd. 2002. “On the role of context in grammaticalization”. In *New Reflections on Grammaticalization*, edited by Ilse Wischer and Gabrielle Diewald, 83-101. Amsterdam/Philadelphia: John Benjamins.
- Holton, David, Peter Mackridge, and Irene Philippaki-Warbuton. 1997. *Greek: A Comprehensive Grammar of the Modern Language*. London: Routledge.
- Katis, Demetra, and Kiki Nikiforidou. 2005. “Η πολυσημία του δείκτη που: Συμβολή αναπτυξιακών δεδομένων στην εξήγησή της” [Explaining the polysemy of *pu*: The contribution of developmental data]. Vol. 2 of *Proceedings of the 6th International Conference on Greek Linguistics*, edited by Georgia Katsimali, Alexis Kalokerinos, Elena Anagnostopoulou, and Ioanna Kappa, 676-684, University of Crete <http://www.philology.uoc.gr/conferences/6thICGL/ebook>.
- Kay, Paul, and Charles Fillmore. 1999. “Grammatical constructions and linguistic generalizations: The *what's X doing Y?* construction.” *Language* 75:1-33. DOI: 10.2307/417472.
- Comrie, Bernard, and Edward L. Keenan. 1979. Noun Phrase Accessibility revisited. *Language* 55. 649-664. DOI: 10.2307/413321.
- Kriaras, Emmanouil. 1997. *Λεξικό της Μεσαιωνικής Ελληνικής Δημόδου Γραμματείας 1100-1669* [Dictionary of Medieval Greek Demotic Literature]. Thessaloniki.
- Kriaras, Emmanouil. 2000. *Γλωσσοφιλογικά: Ύστερο Βυζάντιο – Νέος Ελληνισμός* [Linguistic and philological studies: Late Byzantium, Modern Greek]. Thessaloniki.
- Kriki, Irini. 2013. *Μορφοσυντακτικοί Νεωτερισμοί στη Γλώσσα των μη Φιλολογικών Παπύρων. Οι Αναφορικές Δομές* [Morphosyntactic Innovations in the Language of the Non-Philological Papyri: The Relative Constructions]. PhD. diss., Aristotelian University of Thessaloniki.
- Lambrecht, Knud. 1988. “There was a farmer had a dog: Syntactic amalgams revisited”. *Proceedings of the 14th Annual Meeting of the Berkeley Linguistics Society*, edited by Shelley Axmaker, Annie Jaissner, and Helen Singmaster, 319-339. Berkeley, CA: Berkeley Linguistics Society.

- Lambrecht, Knud. 1994. *Information Structure and Sentence Form*. Cambridge: Cambridge University Press.
- Liddell, Henry G., and Robert Scott. 1949/1977. *A Greek-English Lexicon*. Revised by H.S. Jones. Oxford: Clarendon Press (Reprinted in 1977 by Oxford University Press).
- Mackridge, Peter. 1985. *The Modern Greek Language: A Descriptive Analysis of Standard Modern Greek*. Oxford: Oxford University Press.
- McCawley, James D. 1988. Vol. 2 of *The Syntactic Phenomena of English*. Chicago and London: The University of Chicago Press.
- Manolessou, Io. 2004. “Οι αναφορικές προτάσεις της ελληνικής: διαχρονική προσέγγιση” [Relative clauses in Greek: A diachronic approach]. In Vol. 1 of *Proceedings of the 6th International Conference on Greek Linguistics*, edited by Georgia Katsimali, Alexis Kalokerinos, Elena Anagnostopoulou, and Ioanna Kappa, 18-21. <http://www.philology.uoc.gr/conferences/6thICGL/ebook>.
- Nicholas, Nick. 1998. *The Story of pu. The Grammaticalization in Space and Time of a Modern Greek Complementizer*. PhD diss., The University of Melbourne.
- Nikiforidou, Kiki. 2015. “A constructional approach to syntactic indeterminacy: Evidence for the relativizer to connective development.” In *Connecting the Dots: Interclausal Relations and Discourse*, edited by Miriam Fried and Eva Lehečková. Amsterdam/ Philadelphia: John Benjamins.
- Sag, Ivan. 1997. “English relative clause constructions.” *Journal of Linguistics* 33(2):431-483. DOI.org/10.1017/S002222679700652X.
- Smirnova, Elena. 2015. “Constructionalization and constructional change: The role of context in the development of constructions”. In *Diachronic Construction Grammar*, edited by Jöhanna Barðal, Elena Smirnova, Lotte Sommerer, and Spike Gildea (eds), 81-106. Amsterdam/ Philadelphia: John Benjamins.
- Theophanopoulou, Dimitra. 1985. “Οι που-αναφορικές προτάσεις της Νέας Ελληνικής και η παράλειψη της προθέσεως” [*Pu* relatives in Modern Greek and the omission of the preposition]. *Μελέτες για την Ελληνική Γλώσσα* [Studies for the Greek Language] 3:17-45. Thessaloniki.
- Traugott, Elizabeth C., and Graeme Trousdale 2010. “Gradience, gradualness and grammaticalization: How do they intersect?” In *Gradience, Gradualness and Grammaticalization*, edited by Elizabeth C. Traugott and Graeme Trousdale (eds), 19-44. Amsterdam/Philadelphia: John Benjamins.
- Veloudis, Ioannis. 1999. “Παρακείμενος και που” [The perfect and *pu*]. *Μελέτες για την Ελληνική Γλώσσα* [Studies for the Greek Language] 19:51-65. Thessaloniki.