GREEK PREPOSITIONS IN A SYSTEMIC FUNCTIONAL LINGUISTIC FRAMEWORK

Stanley E. Porter McMaster Divinity College, Hamilton, ON, Canada

Abstract: Greek prepositions belong to a class of words that are usually called particles. These function words are morphologically invariable and enable their function by indicating some kind of relationship between larger units. This means that prepositions are part of a larger category of words that include not only prepositions but conjunctions, adverbs, and possibly other lexemes. Systemic Functional Linguistics does not have an explicit theory of the preposition. However, prepositions are important within both syntagmatic and paradigmatic structure, and function at various ranks and as components of various structures at those ranks. In this paper, I discuss five topics regarding prepositions: word groups and phrases, types of prepositions, prepositions and other relators, the meaning of prepositions, and the function of prepositional groups within SFL architecture. (Article)

Keywords: Preposition, Greek, Systemic Functional Linguistics, conjunction, adverb.

1. Introduction¹

Systemic Functional Linguistics (SFL) does not have an explicit theory of the preposition. This does not mean that prepositions are not interesting or important in a SFL framework. To the contrary, prepositions provide an important test case for illustrating the importance of balancing form and function within

1. I wish to thank my colleague, Dr. Christopher Land, for discussion of this topic that has been extremely helpful in formulating my thoughts.

context. Prepositions are also important within both syntagmatic and paradigmatic structure, and function at various ranks and as components of various structures at those ranks.

Within the Greek language, prepositions belong to a class of words that are usually called particles. These are function words—as opposed to content words (a distinction to which I will return below, if only to explore its ambiguity)—that are morphologically invariable, even if they are situationally phonologically variable, and play a role in enabling the function by indicating some kind of relationship between larger units. In that sense, prepositions are part of a larger category of words that include a number of sub-categories. In Greek, these subcategories include so-called (see below) proper prepositions, improper prepositions (these two categories the ostensive subject of this paper), conjunctions, and even some adverbs, among possibly some other lexemes.

In order to discuss prepositions—or at least to begin such a discussion—I will treat five topics: word groups and phrases, types of prepositions, prepositions and other relators, the meaning of prepositions, and the function of prepositional groups within SFL architecture.

2. Word Groups and Phrases

In SFL, one of the ranks is that of the group or, sometimes called, the phrase.³ This distinction—or not—is part of the discussion of the place of the preposition. In standard theory SFL, prepositions are not treated independently of being parts of prepositional phrases, with the preposition as the head and its complement or completive (typically, though not always, a noun group), as well as any modifiers.⁴ These prepositional phrases function similarly and at roughly the same rank as do word groups, that is, between the word and the clause. Halliday has

- 2. I realize that the notion of relationship is a problematic one. See Huddleston, *Introduction to the Grammar of English*, 336.
 - 3. See Morley, "On Group," esp. 217–20.
 - 4. See Morley, Explorations in Functional Syntax, 80–81.

traditionally made a distinction between prepositional phrases and (other) word groups, however, on the basis of what he contends is their distinct and even opposite origins (he also distinguishes a prepositional group as consisting of two or more prepositional phrases).⁵

For Halliday, the group is the expansion of the word, and hence a word group. As an example in English, the lexeme *hope* can be the headterm of a nominal group consisting of a minimum of one word, itself. An example within a clause, with the nominal group consisting of one word constituting the subject, would be: *Hope is never to be abandoned*. Many nominal groups consist of more than one word. These nominal groups consist of not only their headterm, but various other modifying words. English examples using *hope* might include: But the example of the word of the word of the word of the word.

My hope, which consists of a headterm and a single definer premodifier My unfailing hope, which consists of a headterm and two definer premodifiers

The unfailing hope of the ages, which consists of a headterm, a specifier, a definer (both premodifiers) and a postmodifier prepositional unit.

- Halliday, IFG4, 423.
- 6. This has apparently been part of Halliday's architecture from early on, and is retained in Halliday, IFG4, 362–63: "A *phrase* is different from a group in that, whereas a group is an expansion of a word, a phrase is a contraction of a clause. Starting from opposite ends, the two achieve roughly the same status on the rank scale, as units that lie somewhere between the rank of a clause and that of a word." For a much earlier treatment, see Muir, *Modern Approach to English Grammar*, 50.
- 7. See Aarts and Aarts, *English Syntactic Structures*, 60–78, esp. 61–67, 67–68, and 68–71.
- 8. The terminology used here and throughout is from OpenText.org. We define the following terms: specifier (sp)—modifier that classifies or identifies, such as an article; definer (df)—modifier that attributes features or further defines, such as adjectives and appositives; qualifiers (ql)—modifier that limits or constrains, such as genitives or datives; and relators (rl)—a word specified by a preposition. These are recognizably different from those in standard theory SFL, of which there are several. See Morley, *Explorations in Functional Syntax*, 75–79, where the categories are modifiers (premodifiers) consisting of deictic (article, demonstrative, possessive, interrogative, relative), numerative, epithet, or classifier, and (postmodifier) qualifier.

The same occurs in the Greek of the New Testament:

κτίσις ('creation'), with the lexeme alone as headterm of the word group ἡ κτίσις ('the creation'), with the headterm having a specifier πάση ἀνθρωπίνη κτίσει ('all human creation'; 1 Pet 2:13), with the headterm having two definers as premodifiers πᾶσα ἡ κτίσις ('all the creation'; Rom 8:22), with the headterm having a

πᾶσα ἡ κτίσις ('all the creation'; Rom 8:22), with the headterm having a definer and a specifier as premodifiers

πάση κτίσει τῆ ὑπὸ τὸ οὐρανόν ('all creation under heaven'; Col 1:23), with the headterm (within a prepositional unit) having one definer as premodifier and one postmodifier, consisting of a prepositional unit following a specifier.

One can see from these examples that the nominal group is the expansion of a word. However, Halliday sees the prepositional phrase as having different origins than the nominal or other groups, to the extent that prepositions, he contends, are functionally more closely related to verbs than to adverbials.9 Whereas the word group is the "expansion of a word," the prepositional phrase (and hence the ostensive reason for the descriptive difference) is the "contraction of a clause." This contracted unit consists of two elements, the preposition and the element that is related to the preposition, that is, the preposition and its complement or completive. Even though the prepositional phrase ends up being placed on the rank scale between the word and the clause—and hence roughly at the rank of the group—the configuration and hence function according to Halliday are different. The preposition serves as a minor verb or predicate, with the nominalized element as its complement, and hence its treatment as a contracted clause (that is, a minor clause, one without a finite verb).10

This theory of the preposition, though widely adopted in SFL because of the influence of Halliday, is not accepted by all, even within SFL. The results are several. Some, such as David Morley, wish to reject altogether the notion of group, because group seems to indicate the bringing together into a larger configuration a number of smaller units—just the opposite of

^{9.} Halliday, IFG4, 423.

^{10.} See Halliday and Webster, Text Linguistics, 111.

how Halliday theorizes regarding the group (apart from the prepositional group). Others, such as Robin Fawcett, wish to use the terminology of group for both phenomena discussed above, even if they examine their structures similarly as do others in SFL. Fawcett is probably right that the term "group" is satisfactory for labeling the units that rank between word and clause, and that consist of both the prepositional group and (usually, though not invariably) the nominal group (note that I adopt the language of prepositional group, on the basis of this decision).

There are a number of reasons for accepting this terminology, besides simplicity. One reason is that the placement on the rank scale is admittedly so similar, even for Halliday, so as to make no difference in structural significance. If the results were quantifiably different on the rank scale, then it would be useful to distinguish the two structures.

A second reason is that the nominal group and the prepositional group are similar in structure. Both of them consist of a headterm with its appropriate modifiers. The headterm is modified in various ways by other constituents (SFL is considered a constituency grammar, but this raises questions regarding constituency and dependency; I am not convinced that there is a significant difference for the purposes of this paper). In the case of the prepositional group, this consists of a minimum of one required modifier, the preposition, with any of its own modifiers (in English: *directly to the rear*). In the Greek of the New Testament, this modifier is now pre-positioned (hence preposition), although in earlier Greek it could be post-positioned. In the OpenText.org model, the headterm of the prepositional group is the nominalized element, not the

^{11.} Morley, "On Group," 218–19, with the term 'group' reserved for a 'word complex.' See further his *Explorations in Functional Syntax*, 80–81; cf. 52–54

^{12.} Fawcett, *Theory of Syntax*, 204–206. Fawcett suggests that the prepositional group be called the 'relator group,' but that the term 'preposition' is so firmly enshrined as to resist this. Since we use relator to describe a wider range of words, this term is not useful for our description of Greek (especially when conjunctions are given group status in standard-theory SFL).

preposition (referred to as the preposition heading the phrase)—a difference from many if not most other linguistic frameworks, and discussed further below.¹³

A third reason is that the nominal group and the prepositional group are similar in function. I will take clausal structure as an example of how the cases and prepositions are functionally similar, but the same could be said of their functioning at group level (as elements of groups). Within clausal structure, some nominal groups function as the subjects of their clauses, while others function as complements. Those that function complements in Greek are (except in relational clauses) found in the so-called oblique cases, indicating a functional difference within the clause as shown by the change of case. In the history of Greek, for reasons that we do not need to discuss here, these nominal groups functioned differently on the basis of their context, with the alteration in case indicating the different function. However, the case system was restricted, and expression of these differences in function was simply by means of morphology. Prepositions (many if not most of them perhaps originally adverbs) were used as modifiers (usually but not always as premodifiers) of the nominal group to enhance the use of the cases and to indicate different types of relations that went beyond those of case and to make it clearer how the nominal group functions within its larger (complement) structure. This is the function performed by the preposition, to a greater extent than cases.¹⁴ When the nominal group has this prepositional modification, it forms a prepositional group. In this way, the prepositional group is, like the nominal group, an expansion of the word. (I also note that, at least at the clausal level, the formal differences between the prepositional and nominal group are also indicated by a distinction in semantics, because the prepositional

^{13.} See Huddleston, *Introduction*, 336. This includes SFL. See, e.g., Hudson, *English Complex Sentences*, 292.

^{14.} See Porter, *Idioms*, 139; cf. 80–100 on case. Cf. Sgall, Bémová, and Hajcová, "Remarks on the Semantic Features," esp. 71–73, where from a different framework they at least acknowledge the relationship between cases and prepositions.

group is no longer a complement but an adjunct of the clause. This has semantic implications, in that complements indicate direct participants, but adjuncts indicate circumstances and indirect participants. This distinction is not true at the group level.) Therefore, the headterm of the prepositional group remains the nominal group, with the preposition serving as a relator, that is, a type of modifier that relates the function of the prepositional group within its appropriate structure.

The prepositional group—which we have seen is best treated as similar to a nominal group—relates the nominal group (as head) to its structural environment whether it functions at the group or clause level.

The unfailing hope of the ages, in which the prepositional group is a postmodifier (relator) of the headterm hope in the nominal group He entered into the room, in which the prepositional group is the adjunct of the clause.

ὅλεθρον αἰώνιον ἀπὸ προσώπου τοῦ κυρίου καὶ ἀπὸ τῆς δόξης τῆς ἰσχύος αὐτοῦ ('eternal destruction from the face of the lord and from the glory of his strength'; 2 Thess 1:9), in which there are two postmodifiers (prepositional groups) of the headterm ὅλεθρον καθίσατε ἐν τῆ πόλει ('sit in the city'; Luke 24:49), in which the prepositional group is the adjunct of the clause.

In at least one respect, Halliday's argument regarding the prepositional phrase as a minor clause is worth considering, because he recognizes that there is an important relational function of the preposition similar to that of other words labeled relators. Conjunctions are a type of relator. Conjunctions relate components at various ranks to each other. Similar functions occur in both English and Greek for the use of conjunctive relators—they relate elements at various levels. These include conjunctive relators that link wordgroups, clauses, clause complexes, and even larger units, such as paragraphs (or the equivalent).

This function of relators may be found at the word level:

big and boisterous person, where the two modifiers are joined by the relator

πολλὰ καὶ ἄλλα σημεῖα ('many and other signs'; John 20:30), where the two modifiers are joined by the relator

or it may function at the group level:

the big man and the tall woman καὶ ὁ ἄνεμος καὶ ἡ θάλασσα ('both the wind and the sea'; Mark 4:41)

or it may function at the clause level:

he bought and ate the meat τινες ἐσκληρύνοντο καὶ ἡπείθουν ('certain ones were hardened and unpersuaded'; Acts 19:9)

or it may function at the clause complex level:

he saw the boy and he smelled the food ή χαρὰ ή ἐμὴ ἐν ὑμῖν ἦ καὶ ή χαρὰ ὑμῶν πληρωθῆ ('my joy might be in you and your joy might be fulfilled'; John 15:11)

or it may function at the paragraph level (and possibly beyond):

However we begin..., with a normal use of the conjunction that might be used at the beginning of a paragraph

καὶ ἐγένετο ἐν ἐκείναις ταῖς ἡμέραις ('and it came about in those days'; Mark 1:9), beginning the episode of John the Baptist after the opening section of Mark's Gospel.

However, these conjunctive relators, whether in English or Greek, function at various ranks, only some of which are clausal. For Halliday, he must posit that his prepositional phrases as minor clauses function at the clause level but must rankshift to function at the group level (I am not sure how he sees them functioning at higher than the clause level). I believe that group expansion provides a better explanation, with the prepositional group functioning at various ranks as it fills higher levels of structure. There is the further problem for Halliday that minor clauses (clauses without a finite verb) are expandable with other elements of clause structure, but prepositional groups are not. Finally, whereas Halliday sees a parallel between prepositions and non-finite verbs, I find more compelling the parallel between prepositions and other types of relators, even if it is a cline of similarity and difference.¹⁵

This placing of the prepositional group together with the nominal group is in distinction to the adjectival group (which is now being called the quality group in more recent OpenText.org discussion, following Fawcett's Cardiff grammar) and to some extent the adverbial group (as discussed below). Whereas the prepositional group and nominal group have more in common with each other, they have some distinctions from the adverbial group and more distinctions from the adjectival group. Adjectival and adverbial groups do not take specifiers (or deictics in SFL or determiners in other frameworks), and hence do not, without such specifiers or within a noun group, function as subjects (etc.) of clauses. When an adjectival or adverbial group takes a specifier, it functions as a nominal group (or complex) with the group as headterm of a larger structure. Thus, we may have:

The book is largely unknown, in which the adjectival group, largely unknown, consists of the headterm adjective, unknown, and the modifying adverb, largely

όμολογουμένως μέγα ἐστὶν τὸ τῆς εὐσεβείας μυστήριον ('confessedly great is the mystery of the godliness'; 1 Tim 3:16), in which the adjectival group, ὁμολογοθμένως μέγα, consists of the headterm adjective, μέγα, and the modifying adverb, ὁμολογουμένως.

He ran quite quickly, in which the adverbial group, quite quickly, consists of the headterm adverb, quickly, and the modifying adverb, quite πολυμερῶς καὶ πολυτρόπως πάλαι ('in diverse fashions and in diverse ways from long ago'; Heb 1:1), with the use of three adverbs, perhaps in two adverbial groups.

But then we might also have:

The small and the mighty perform the greatest deeds, with the adjectival group filling the headterm of a nominal group with the specifier

- ό δὲ μικρότερος ἐν τῆ βασιλεία τοῦ θεοῦ μείζων αὐτοῦ ἐστιν ('the smaller one in the kingdom of God is greater than he'; Matt 11:11), where an adjectival group, μικρότερος ἐν τῆ βασιλεία τοῦ θεοῦ, fills the role of the headterm of a nominal group.
- 16. Fawcett, Theory of Syntax, 206–207.
- 17. See Aarts and Aarts, *English Syntactic Structures*, 61–67, 67–68, and 68–71; Halliday, IFG4, 391.

In the dark backward and abysm of time (Tempest, I.2.50), where these two adverbs are used as the headterms of nominal groups within a prepositional group

τὰ ἄνω ζητεῖτε ('seek the above'; Col 3:1), where the adverb is the headterm of the nominal group with the specifier.

The use of the specifier changes the function of the group. Prepositions may appear with adverbs without the article, in which instances they are sometimes considered as separate words (prepositional groups with the adverb as the headterm) or sometimes as adverbial groups with a prefixed preposition. Examples include: $\hat{\nu}\pi\hat{\epsilon}\rho$ $\hat{\epsilon}\kappa$ $\pi\epsilon\rho\iota\sigma\sigma\sigma\tilde{\nu}$ or $\hat{\nu}\pi\epsilon\rho\kappa\pi\epsilon\rho\iota\sigma\sigma\tilde{\nu}$ ('more than abundantly'; Eph 3:20 as conjunctive relator, but as adverb in 1 Thess 3:10; 5:13). ¹⁸

I incidentally note that the verbal group in Greek is probably best analyzed as consisting of the simple or complex verb as head, whether that consists of an auxiliary/finite and head (as in periphrastic or catenative constructions) or simply the head (a single finite verb). The OpenText.org project has found it useful to have no further elements in the verbal group (and hence as the only element of a predicator), so that prepositional groups at clause structure are adjuncts of the clause, used to indicate circumstances and indirect participants (see below).

Further, OpenText.org does not consider relators (or conjunctions) to be a separate word group, as do some other SFL frameworks, for many of the reasons that have already been intimated in the discussion of prepositions. However, we do recognize that prepositions can form groups or complexes of their own, in the sense that there are prepositional groups that consist of more than one preposition, and these prepositional groups form the relator element in a larger (complex) prepositional group. We could specify these as prepositional

^{18.} See Robertson, *Grammar*, 547–48, although some of his discussion of adverbs appears to be highly misleading (e.g. on adverbs with other adverbs, where he appears to be speaking about adjectives with adverbs).

^{19.} See, e.g., Halliday, IFG4, 77; Benson and Greaves, *Language People Really Use*, 13.

^{20.} There is not much significant research on these types of prepositions or prepositional groups. See Morley, *Explorations in Functional Syntax*, 53,

complexes, but do not do so. However, we do recognize that these prepositions form complex relational units.

Thus, in conclusion to this first section, prepositions are relators, that is, words that relate one element to another, and they occur as relators with nominal groups to form prepositional groups, similar to nominal groups.

3. Types of Prepositions

There are typically said to be two types of prepositions in Greek, proper (or essential) and improper (or accidental) prepositions.²¹ So-called proper prepositions are those that are prefixed to verbs. of which there are eighteen such prepositions in the Greek New Testament, and they consist of: $d\mu\phi i$, $d\nu d$, $d\nu\tau i$, $d\pi d$, δid , ϵic , $\dot{\epsilon} x$, έν, ἐπί, κατά, μετά, παρά, περί, πρό, πρός, σύν, ὑπέρ, and ὑπό. The so-called improper prepositions are those that are not prefixed to verbs, of which there are around 50 or so in the Greek New Testament. They consist of: ἄμα, ἄνευ, ἄντικρυς, ἀντιπέρα, ἀπέναντι, ἄτερ, ἄχρι(ς), ἐγγύς, ἐκτός, ἔμπροσθεν, ἔναντι, ἐναντίον, ένεκα, ἐντός, ἐνώπιον, ἔξω, ἔξωθεν, ἐπάνω, πέκεινα, ἔσω, ἕως, κατέναντι, κατενώπιον, κυκλόθεν, κύκλω, μέσον, μεταξύ, μέχρι(ς), όπισθεν, όπίσω, όψέ, παραπλήσιον, παρεκτός, πλήν, πλησίον, ύπεράνω, ύπερέκεινα, ύπερεκπερισσοῦ, ύποκάτω, χάριν, and χωρίς. Some, if not most, of these so-called improper prepositions are considered adverbs, as well as any number of other forms (sometimes compound forms, as noted above). Many believe that the preposition originated with the adverb, as evidenced by earlier usage (e.g. independent prepositions used for circumstances in Homer).

who gives four lines to "complex prepositions" consisting of "more than one word"; and Hoffmann, *Grammaticalization*, 1–3, 166–69, although in a very limited way and using grammaticalization theory to explain the phenomenon in English.

21. Cf. Morley, *Explorations in Functional Syntax*, 52–54. See also Watt, "From Adams (1885) to Zimmermann (2009)," 10, for the use of this alternative terminology. As the discussion illustrates, none of the terms is entirely satisfactory, as there is nothing either proper or essential to one set or that is improper or accidental to the other.

What is the difference between a proper and improper preposition? Nothing much. They are both relators, with the only difference being that some prepositions are preposed on verbs and others are not. There is a change in function of the preposition that occurs when it is prefixed to a verb, however, so that it is sometimes difficult to analyze the function of the verbal (or nominal) prefixed preposition. I will discuss the meaning of the prepositions, including the prefixed prepositions, below. Otherwise, their distribution and function is similar to each other and generally to the function of other relators.

4. Prepositions and Other Relators

Prepositions have a number of similarities with other relators. As a result, the boundary between prepositions and other relators is not an easy one to find. Some of their similarities are as follows.

First, prepositions and other relators function at different ranks of the language structure but in similar ways, as already noted above.²² There are both prepositions and other relators that conjoin material at the word level, group level, clause level, clause complex level, and possibly even higher.

An example of a preposition functioning at the word level might include:

ὑπὲρ ἐγώ ('indeed I'; 2 Cor 11:23), with clear similarities to an adverbial function.

22. See Huddleston, *Introduction*, 336, who under "Functional potential, II," states that (English) prepositional phrases "have a considerable variety of functions in larger constructions, notably: in clause structure, complement . . . or modifier; in NP structure, complement . . . or modifier; in NP structure, complement . . . or modifier structure, complement . . . or modifier structure, as the Greek does not use the prepositional group in predicate structure, as the Greek verbal group consists only of the verbal element (whether simple or complex). The Greek prepositional group also extends beyond clause structure to relate clauses within clause complexes, as discussed below. See also Thompson, *Introducing Functional Grammar*, passim.

An example of a preposition conjoining at the group level includes a prepositional group embedded within a nominal group as a relator, a very common usage:

χάριν ἀντὶ χάριτος ('grace instead of grace'; John 1:16), with the nominal group consisting of its headterm and the prepositional group.

An example of a preposition conjoining at the clause level includes a variety of examples. One example includes an embedded clause linked by a prepositional relator, such as a relative clause:

ό τόπος ἐν ὧ ἦσαν συνηγμένοι ('the place in which they were gathered'; Acts 4:31), in which the prepositional conjunction relates the relative clause to the noun group to form a complex subject.

An example of a preposition conjoining at the clause complex level includes two clauses linked by a prepositional conjunction:

... κυρίου ήμῶν Ἰησοῦ Χριστοῦ, δι'οὖ νῦν τὴν καταλλαγὴν ἐλάβομεν ('... our Lord Jesus Christ, through whom now we receive reconciliation'; Rom 5:11).

An example of a preposition conjoining at the paragraph level involves opening a paragraph with a prepositional conjunction that relates to a previous paragraph:

διὰ τοῦτο . . . ('because of this'; e.g. Rom 5:12; 2 Cor 4:1), where the reference is anaphoric.

Second, there are a number of words for which classification is very difficult. Sometimes these words are called prepositions (usually improper prepositions), other times conjunctions, and still others adverbs, but the significance is that they have similar types of functions, regardless of what they are called. I will distinguish here between what might be called prepositional relator and conjunctive relator function and adverbial function. Some examples include:

- πᾶσαι οὖν αἱ γενεαὶ ἀπὸ Ἀβραὰμ ἔως Δανίδ ('all the generations from Abraham to David'; Matt 1:16), the prepositional relator function²³ ἔως ἐλθὼν ἐστάθη ἐπάνω οὖ ἦν τὸ παιδίον ('until, arriving, it [the star] stood above . . . '; Matt 2:9), the conjunctive relator function.
- ἄχρι τοῦ νῦν ('until now'; Rom 8:22), the prepositional relator function ἄχρι ἦς ἡμέρας εἰσῆλθεν Νῶε εἰς τὸ κιβωτόν ('until the day Noah entered the ark'; Matt 24:38), the conjunctive relator function.
- εἴτε ἐκτὸς τοῦ σώματος οὐκ οἶδα ('if I do not know apart from the body'; 2 Cor 12:2; cf. 1 Cor 6:18), the prepositional relator function ἐκτὸς εἰ μὴ διερμηνεύη ('except if he interprets'; 1 Cor 14:5; cf. 1 Cor 15:2), the conjunctive relator function, with a conjunctive group.
- <u>ἕνεκεν</u> δικαιοσύνης ('on account of righteousness'; Matt 5:10), the prepositional relator function
- οὖ εἴνεκεν ἔχρισέν με εὐαγγελίσασθαι πτωχοῖς ('on account of whom he anointed me to proclaim good news to the poor'; Luke 4:18), the conjunctive relator function.
- ό καθήμενος ἐπάνω αὐτοῦ ('the one sitting above him'; Rev 6:8), the prepositional relator use
- ἐστάθη ἐπάνω οὖ ἦν τὸ παιδίον ('it [the star] stood above where the child was'; Matt 2:9), a possible conjunctive relator use (although admittedly susceptible to other analyses)
- ἴνα ὧσιν εν καθως ἡμεῖς ('so that they might be one as we'; John 17:11), with prepositional relator function, although this may be an instance of ellision
- καθώς γέγραπται ('as it stands written'; Matt 26:24), with conjunctive relator function.
- τὴν κώμην τὴν κατέναντι ὑμῶν ('the village opposite you'; Matt 21:2; Mark 11:2; but cf. Luke 19:30: εἰς τὴν κατέναντι κώμην, 'into the opposite village,' where the word is the modifier within a nominal group), the prepositional relator function
- κατέναντι θεοῦ ἐν Χριστῷ λαλοῦμεν ('oppositely, we speak of God in Christ'; 2 Cor 2:17; 12:19), a possible conjunctive relator use; cf. also Rom 4:17: κατἐναντι οὖ ἐπίστευσεν θεοῦ ('opposite of which he believed God'), another possible conjunctive relator function.
- περιῆγεν τὰς κώμας κύκλω ('he went around the villages in a circle'; Mark 6:6), adverbial function
- εὶς τοὺς <u>κύκλω</u> ἀγροὺς ('into the surrounding fields'; Mark 6:36; Luke 9:12), a modifying function in a nominal group
- 23. I note that the Moulton-Geden-Marshall concordance differentiates $\mbox{\~{e}}\omega \varsigma$ conjunction from $\mbox{\~{e}}\omega \varsigma$ preposition.

- κύκλω τοῦ θρόνου ('around the throne'; Rev 4:6; 5:11; 7:11), a prepositional relator function.
- <u>μέχρι</u> τῆς σήμερον ('until today'; Matt 11:23), prepositional relator function
- μέχρις οὖ ταῦτα πάντα γένηται ('until when all these things might occur'; Mark 13:30; cf. Gal 4:19), conjunctive relator function.
- κράζει <u>ὅπισθεν</u> ἡμῶν ('cried after us'; Matt 15:23), prepositional relator function
- γέμοντα ὀφθαλμῶν ἔμπροσθεν καὶ <u>ὅπισθεν</u> ('being covered with eyes before and after'; Rev 4:6), adverbial function.
- <u>οψὲ</u> δὲ σαββάτων ('after sabbath'; Matt 28:1), prepositional relator function
- ἕρχεται ἢ ἀψὲ ἢ μεσονύκτιον ('he comes either later or in the middle of the night'; Mark 13:35), adverbial function.
- οὺκ ἔστιν ἄλλος <u>πλὴν</u> αὐτοῦ ('there is no other except for him'; Mark 12:32), prepositional relator function
- <u>πλὴν</u> λέγω ὑμῖν ('except I say to you'; Matt 11:22, 24; 26:64), conjunctive relator function.
- νυκτὸς καὶ ἡμέρας ὑπερεκπερισσοῦ δεόμενοι ('praying night and day far more'; 1 Thess 3:10), adverbial function
- ύπὲρ πάντα ποιῆσαι ὑπερεκπερισσοῦ ὧν αἰτούμεθα ('above all things to do far more than which things we ask'; Eph 3:20), probably conjunctive relator function.
- ώς ἕνα ἕκαστον ὑμῶν ὡς πατὴρ τέκνα ἑαυτοῦ ('as each one of you as a father his children'; 1 Thess 2:11), with prepositional relator function. ὡς ἐπαύσατο ('as he finished'; Luke 11:1), with prepositional conjunctive function

Third, prepositions and conjunctions have similar scope in relation to other elements. Prepositions, as noted above, have scope over minimal to maximal units. There are numerous places where the scope of the preposition extends over more than one unit within the language:

κατὰ τὸ εὐαγγέλιόν μου καὶ τὸ κήρυγμα Ἰησοῦ Χριστοῦ, κατὰ ἀποκάλυψιν μυστηρίου χρόνοις αἰωνίοις σεσιημένου φανερωθέντος δὲ νῦν . . . ('according to my good news and the proclamation of Jesus Christ, according to the revelation of the mystery silent for eternal times but now manifested and . . . '; Rom 16:25–26), with the second use of κατά extending its scope over several embedded clauses.

This extended scope is also found in the use of conjunctions, where the scope of the conjunction may extend over minimal units up to maximal units connecting paragraphs within a discourse:

ἀποκαλύπτεται γὰρ ὀργὴ θεοῦ ἀπ'οὐρανοῦ ἐπὶ πᾶσαν ἀσέβειαν καὶ ἀδικίαν ἀνθρώπων ('for the wrath of God is revealed from heaven upon all ungodliness and unrighteousness of humans'; Rom 1:18), with the scope of the conjunction linking at least the opening of the body of the letter on the guilt of humankind to the rest of the letter.

Instances of this sort require differentiation of the scope of the function of the relator, whether prepositional or conjunctive.

Fourth, some grammarians try to distinguish conjunctive and prepositional relators on the basis of clausal configurations. Thus, it has been argued that English subordinating conjunctions that conjoin a following clause and prepositions that do the same have different clausal patterning. As an example, an English clause such as *because he had trained hard* can become *he had trained hard*, but *from what we understand* cannot become *what we understand* and stand on its own.²⁴ This explanation is not satisfactory in Greek, where at least some, although not all, prepositions and conjunctions are found in similar clausal environments up to the clause complex level, as the examples above demonstrate.

5. Meanings of Prepositions

As mentioned above, prepositions are labeled not content words but function words—they perform the function of relating one unit to another. However, there is some ambiguity regarding the differentiation between function and content words. In the Louw-Nida lexicon, domain 89 is concerned with relations. This domain includes mostly particles such as prepositions and conjunctions, as Louw and Nida indicate.²⁵ However, throughout

^{24.} See Morley, *Explorations in Functional Syntax*, 56–57. Morley does entertain other examples that show their similarity in English, although he rejects these.

^{25.} Louw and Nida, Greek-English Lexicon, 777 n. 1.

the domain, there are other words included as well that would normally be thought of as content words, such as: αἰτία, κρέμαμαι, ἀναλογία, μετασχηματίζω, θεμέλιον, ἀρχή, ῥίζα, λόγος, ἄλογος, δωρεάν, αὐτόματος, ἀφορμή, ἔκβασις, τέλος ἀποβαίνω, ὀψώνιον, ἔρχομαι, κενός, προστίθεμαι, πάλιν, περαιτέρω, σύμφυτος, and κοινός, besides some phrasal units. These so-called content words can be used in functional ways, ways in which they resemble function words. Within the lexicon, a number of prepositions and conjunctions are also included within other semantic domains that are usually thought of as content domains (e.g. the preposition ἐν is found in domains 13, 67, 83, 84, and 90, besides its being found in 22, 23, 28, 33, 65, 70, 67, 68, 87, 89, and 90 when used phrasally). These uses of the prepositions and conjunctions indicate that they have a certain amount of content when used in these contexts.

There are, however, at least two specific environments where prepositions appear not to be function words but to be content words. One of these is when the preposition is itself the headterm of a nominal group. The other of these is when the preposition is prefixed to a verb.

As relators, prepositions are words that convey positional status (a form of the localist hypothesis). Most prepositions are spatial locative indicators, such as *toward*, *into*, *out of*, *away*, *above*, *below*, *upon*, *through*, *in front of*, *behind*, and many more. Spatial location situates the element in a particular position in relation to another element or elements. There is also a close relationship between location in space and location in time, so much so that the sense of the preposition is modulated by context to indicate not simply spatial location but temporal location. As a result, such notions as *in front* become *before*, *behind* become *after*, *through* space become *through* time, and the like. Similarly, location in space leads to location in time, and

^{26.} See Porter, *Idioms*, 142. Robertson, *Grammar*, 568, referring to Kühner and Gerth, *Ausführliche Grammatik*, I:451, believes in a 'ground-meaning' of the prepositions. He also articulates an analysis using the meaning of the case, then the preposition, and then the context, similar to the one in Porter, *Idioms*, 81–82, for case.

this leads to location in relation to another, that is, the relator function. In other words, space leads to time leads to relation. Positional *before* becomes temporal *before* becomes relational *before* (in priority or cause, etc.). In the same way that a conditional clause indicates a relationship between protasis and apodosis, the relator can indicate a relationship between two units, whether they are words, groups, clauses, or beyond. This is why prepositions, conjunctions, and even some adverbs have so much in common lexicogrammatically and semantically. They perform very similar functions in relating elements to each other on the basis of some type of location.

This explanation of the meaning of prepositions may appear to have relations to various proposals in cognitive linguistics, and so it does. Cognitive linguistics has reinforced what we have already realized about how various elements are conceptualized in relation to each other, and how we metaphorically transfer or extend core meanings.²⁷ However, this conception of the semantic relationship between Greek prepositions predates cognitive linguistics, as is seen in the conceptual understanding of the semantic space of prepositions in Bruce Metzger's *Lexical Aids for Students of the New Testament* and in my own depiction of their semantic relations.²⁸ The semantic overlap and interconnection among prepositions does not need to rely upon cognitive linguistics, however.²⁹ They can also be explained as

- 27. Other frameworks have arrived at similar conclusions. For example, see Lindstromberg, *English Prepositions Explained*, esp. 7, who acknowledges his debt to Lakoff and Johnson, *Metaphors We Live By* and Lakoff, *Women, Fire and Dangerous Things*, the latter incorporating prototype theory; Bennett, *Spatial and Temporal Uses*; Herskovits, *Language and Spatial Cognition*, drawing on cognitive linguistics and artificial intelligence; Luraghi, *Meaning of Prepositions and Cases*, 82–314; Bortone, *Greek Prepositions*, 47–53; and (following Bortone) Harris, *Prepositions and Theology*, 28–30. An important essay in the history of cognitive linguistics is Lakoff, "Cognitive Semantics." For the notion of space from a general cognitive and linguistic perspective, see Regier, *Human Semantic Potential* and Bloom et al., eds., *Language and Space*.
- 28. See Metzger, *Lexical Aids*, 80 (a chart that may go back as early as 1954 or even 1946); and Porter, *Idioms*, 143–79.
- 29. Cognitive linguistics, as well as prototype theory, relies upon theories of polysemy. See Taylor, *Linguistic Categorization*, 99–121, with 109–16

lexical metaphorical (in the SFL tradition) expansion of the core meaning if viewed from a monosemic bias.

The spatial, temporal, and hence relational elements of the preposition help us to understand that the prefixed preposition takes on some characteristics of a content word by how its locational, temporal, and even relational senses relate to the verb to which it is prefixed. This is clearly seen in verbs of motion, where we have εἰσέρχομαι ('go in'), ἐξέρχομαι ('go out'), etc., which add the locational sense of the prefixed preposition to the verb. The temporal and relational senses are less clearly seen, but are present nevertheless, even if the semantic features of the individual prefixed prepositions are difficult to estimate, although there are often signs that the locative sense is still present (e.g. κατεσθίω, 'eat up' or 'chow down'; καταδιώκω, 'hunt down,' in which the preposition still maintains its idea of 'ground'). Intensification and transformation of the meaning of the verb are two of the ways in which these other senses are expressed, although still often with local meaning.³⁰

Instances in which the preposition has some characteristics of a content word are found when a preposition is itself the headterm of a nominal group.³¹ There are a number of prepositions that function in this way.

λαμψάτω τὸ φῶς ὑμῶν <u>ἔμπροσθεν</u> τῶν ἀνθρώπων ('let your light shine before people'; Matt 5:24), prepositional relator function προδραμὼν εἰς τὸ <u>ἔμπροσθεν</u> ('running into the lead'; Luke 19:4), content function

τὰ μὲν ὀπίσω ἐπιλανθανόμενος τοῖς δὲ ἔμπροσθεν ἐπεκτεινόμενος ('losing sight "upon" the things "after" but reaching "out" "upon" the things "before"; Phil 3:13), with several instances to consider. There are two instances of prepositions as the headterms of nominal groups (the things 'after' and the things 'before') and several uses of prefixed prepositions—all indicate the tendency for prepositions to modulate their spatial and temporal locations to indicate their content.

devoted to the preposition *over*; and 264–81, with recognition of the two-levels problem and treatment of *in* and *round*. On monosemy in a New Testament Greek framework, see Porter, *Linguistic Analysis*, 51–53.

- 30. See Porter, Verbal Aspect, 66-70.
- 31. See Peters, The Greek Article, 219-25.

- Λάζαρε, δεῦρο <u>ἔξω</u> ('Lazarus, come outside'; Matt 13:48), adverbial function
- προφήτην ἀπολέσθαι ἔξω Ἰεροσαλήμ ('a prophet to die outside of Jerusalem'; Luke 13:33), prepositional relator function
- έν σοφία περιπατεῖτε πρὸς τοὺς <u>ἔξω</u> ('in wisdom walk with those outside'; Col 4:5), content function
- ἔως ἔξω τῆς πόλεως ('until outside of the city'; Acts 21:5; cf. also Acts 26:11: ἐδίωκον ἔως καὶ εἰς τὰς ἔξω πόλεις, 'they were pursuing until and up to those outside cities,' where the adverb functions as a modifier within a nominal group), content function
- <u>ἔξωθεν</u> μάχαι ἔσωθεν φόβοι ('outside wars inside fears'; 2 Cor 7:5), adverbial function
- ἐπατήθη ή ληνὸς ἔξωθεν τῆς πόλεως ('the wine press was trampled outside the city'; Rev 14:20), prepositional relator function
- καθαρίζετε τὸ <u>ἔξωθεν</u> τοῦ ποτηρίου καὶ τοῦ παροψίδος ('purify the outside of the cup and the lip'; Matt 23:25; cf. Luke 11:39, 40), content function
- εἰσελθὼν ἔσω ('entering inside'; Matt 26:58), adverbial function οἱ δὲ στρατιῶται ἀπήγαγον αὐτὸν ἔσω τῆς αὐλῆς ('the soldiers took him away into the hall'; Mark 15:16), prepositional relator function
- ἡκολούθησεν αὐτῷ ἔως ἔσω εἰς τὴν αὐλήν ('they followed him until inside into the hall'; Mark 14:54; cf. Eph 3:16: εἰς τὸν ἔσω ἄνθρωπον, 'into the inside person,' as the modifier within a nominal group; and Rom 7:22), content function
- μεταξύ τοῦ ναοῦ καὶ τοὺ θυσιαστηρίου ('between the temple and the altar'; Matt 23:35; cf. Luke 11:51), prepositional relator function ἐν τῷ μεταξύ ('in the between place'; John 4:31), content function εἰς τὸ μεταξῦ ('into the between place'; Acts 13:42), content function
- ρυσάσθω <u>νῦν</u> εὶ θέλει αὐτόν ('he should rescue him now if he wants him'; Matt 27:43), adverbial function
- νοῦν δὲ πολλὰ μὲν μέλη ('now [therefore?], there are many members'; 1 Cor 12:20), conjunctive relator function³²
- νῶν οὖν πορεύεσθε ἐν εἰρήνη ('now therefore, go in peace'; Acts 16:36), conjunctive relator function
- καὶ τὰ <u>νῦν</u> λέγω ὑμῖν ('and the present things I speak to you'; Acts 5:38; cf. Acts 4:29; 17:30; 20:32; 24:25; 27:22), content function
- ὁ ἐν τῷ ἀγρῷ μὴ ἐπιστρεψάτω ὀπίσω ('don't let the one in the field return
- 32. This and the following example are argued for by Thrall in her *Greek Particles*, 30–34. See Porter, *Idioms*, 213–14.

- after'; Matt 24:18), adverbial use; cf. Mark 13:16: ὁ εἰς τὸν ἀγρὸν μὴ ἐπιστρεψάτω εἰς τὰ ὀπίσω ('don't let the one in the field return into the after places'), content functions
- βλέπων εἰς τὰ ὁπίσω ('looking at the after things'; Luke 9:62; cf. Luke 17:31; John 18:6; 20:14), content function
- παρεκτὸς λόγου πορνείας ('apart from a word of adultery'; Matt 5:32; 19:9), prepositional relator function
- χωρὶς τῶν <u>παρεκτός</u> ('apart from the exceptional things'; 2 Cor 11:28), content function
- πέραν τῆς θαλάσσης τῆς Γαλιλαίας τῆς Τιβεριάδος ('opposite the sea of Galilee of Tiberias'; John 6:1), prepositional relator function ἦλθεν εἰς τὸ πέραν τῆς θαλάσσης ('he entered into the otherside of the sea': Mark 5:1). content function
- Συχὰρ πλησίου τοῦ χωρίου ὃ ἔδωκεν Ἰακώβ ('Sychar, near the land which Jacob gave'; John 4:5), prepositional relator function
- άγαπήσεις τὸν πλησίου σου ('you will love your nearperson [kinsperson]'; Matt 5:43; 19:19; 22:39; Mark 12:31, 33; Luke 10:27; Rom 13:9; Gal 5:14; Jas 2:8), content function
- εὶς τὰ ὑπερέκεινα ὑμῶν εὐαγγελίσασθαι ('to preach the good news to those beyond you'; 2 Cor 10:16, but see above), content function
- τῶν παραβάσεων χάριν προσετέθη ('on account of transgression it was added'; Gal 3:19), prepositional relator function
- δι'οὖ ἐλάβομεν χάριν καὶ ἀποστολήν ('through whom we receive grace and apostleship'; Rom 1:5), content function, as this is a noun.

6. Functions of Prepositional Groups within SFL Architecture

In the fifth and final section of this paper, I wish to show how prepositional groups may variously function within SFL architecture. Prepositional groups can function at numerous ranks within the lexicogrammar, as already discussed and evidenced. The question here is what is the semantic potential of prepositional groups that other groups do not have.

On the basis of what has been said above, it is clear that there is strong "functional overlap" to some extent with the adverbial group, but certainly between conjunctive relators (what Halliday calls the "conjunction group," hence treatment with the other two groups) and the prepositional group. "They have the same

general functional potential."³³ However, having said that, there are also some differences between them that merit further attention regarding the prepositional group. There are two major distinctives of the prepositional group as opposed to the others that are worth mentioning as to their semantic potential.

The first distinctive is that, "since prepositional [groups] include a nominal group" as the headterm (but as the complement for Halliday, who takes the preposition as the head), "they have greater expressive potential than adverbial groups."³⁴ This is because of the expressive potential of the nominal group. The adverbial group, by contrast, consists of the adverbial headterm and its modifiers, which are limited in number and scope. In fact, there are relatively few adverbial groups within the Greek of the New Testament that instantiate complex modification of the headterm. By contrast, the nominal group, as noted above, consists of the headterm and a number of potential pre- and post-modifiers. These include specifiers (such as articles, demonstrative pronouns, and the like), qualifiers (such as adjectives), definers (such as defining genitives and datives), and relators (such as prepositional groups). As in English, such usage in Greek is found in "the more elaborated registers" of writing, and constitutes one of the predominant ways in which prepositional groups are used.³⁵ The expressive potential, therefore, of the prepositional group is immense, as the semantic potential contained within these elements inexhaustible, especially with the prepositional group forming groups of nested units. Examples of such constructions that demonstrate the instantiation of such potential can be found in Eph 1:5–14, in which there are numerous prepositional groups, some of them serving as adjuncts within clausal structure and others as components of nominal groups expanding their semantic scope.

^{33.} Halliday, IFG4, 363.

^{34.} Halliday, IFG4, 363.

^{35.} Halliday, IFG4, 331.

The second distinctive is that prepositional groups "can construe more experientially complex circumstances."36 The prepositional group may function within the textual metafunction as providing thematic material and within the interpersonal metafunction as providing participant status. However, the prepositional group, because of the complexity already described, has greater expressive potential than the adverbial group. The adverbial group tends to realize the circumstances of time, location, and manner,³⁷ and contributes this to clausal semantics. However, the prepositional group, as adjunct, construes "other, experientially more complex circumstances." 38 (I already noted the distinction between the prepositional group and the nominal group in clause structure.) These circumstances include all of the functions that might be performed by the relators of the prepositional group. These include location or position $(\dot{\alpha}\pi\dot{\phi})$, time $(\dot{\epsilon}\varkappa)$, and manner $(\dot{\epsilon}\nu)$, to be sure, but also the kinds of relations indicated by the range of relators, and so also direction ($\dot{\alpha}\nu\dot{\alpha}$), cause ($\delta\iota\dot{\alpha}$), instrumentation ($\dot{\nu}\pi\dot{\sigma}$), distribution (ἐν), extension (εἰς), purpose or result (εἰς), control or power (sphere) (ἐν), standard or basis (κατά), accompaniment (μετά), focus ($\pi \epsilon \rho i$), benefit ($\dot{\nu} \pi \dot{\epsilon} \rho$), and substitution ($\dot{\alpha} \nu \tau i$). Certain types of participants, which can be specified with a prepositional group as part of its nominal group that serves as head, are sometimes represented, unlike with adverbial groups, as "indirect participants,"39 such as those who are involved in these various functions, especially primary $(\delta\pi\delta)$, secondary $(\delta\iota\alpha)$ or tertiary/ instrumental (ἐν) agents. These indirect participants, again unlike with adverbial groups, can be elevated within transitivity structure to direct participant status, to become the agent or recipient of an action. The function of prepositional groups in causality (realized by the voice system and other

^{36.} Halliday, IFG4, 363.

^{37.} See Porter, *Idioms*, 125: time: αὕριον, νῦν, πέρυσι, πρωΐ, σήμερον, τότε; location: ἄνω, ἐκεῖ, ἐκεῖθεν, ἐνθάδε, ἐντεῦθεν, κάτω, πόρρω, ὧδε; manner: ἄπαξ, εἰκῆ, ἐξαίφνης, ἡδέως, οὕτω(ς), παραγρῆμα, ταγέως.

^{38.} Halliday, IFG4, 364.

^{39.} Halliday, IFG4, 364.

morphosyntactical systems), has clear semantic overlap with the function of the nominal group in indicating participants.⁴⁰

7. Conclusion

Whereas there is no single theory of the preposition in SFL, once we examine some of the particular features of the preposition in Greek, we see that we can theorize at least preliminarily about its systemic function within the Greek language. The prepositional group is most like the nominal group, and most unlike the adjectival/quality group, and somewhat like the adverbial group. Its functional potential falls within a category called relators, in which case it has similarities to other relators, such as conjunctions. However, there are a number of similarities that the prepositional group has with other elements of the Greek language, including both some adverbs and content words. In other words, the prepositional group has great expressive potential, whether used to elaborate a nominal group, in which it has an almost infinite nesting capacity for expression, whether adjunct to provide greater circumstantial an expressiveness than an adverbial group, or whether used as part of the relator system, in which case it functions similarly to conjunctions and other connectors.

Bibliography

- Aarts, Flor, and Jan Aarts. *English Syntactic Structures: Functions and Categories in Sentence Analysis*. Oxford: Pergamon; Utrecht: Bohn, Scheltema & Holkema, 1982.
- Bennett, David C. Spatial and Temporal Uses of English Prepositions: An Essay in Stratificational Semantics. Longman Linguistics Library. London: Longman, 1975.
- Benson, James D., and William S. Greaves. *The Language People Really Use*. Agincourt, ON: Book Society of Canada, 1973.
- Bloom, Paul, et al., eds. Language and Space. Cambridge: MIT Press, 1996.

40. Halliday, IFG4, 364.

- Bortone, Pietro. *Greek Prepositions: From Antiquity to the Present.* Oxford: Oxford University Press, 2010.
- Fawcett, Robin P. A Theory of Syntax for Systemic Functional Linguistics. Amsterdam: Benjamins, 2000.
- Halliday, Michael A.K. Halliday's Introduction to Functional Grammar (IFG4).
 Revised by Christian M.I.M. Matthiessen. 4th ed. London: Routledge, 2014.
- Halliday, M.A.K., and Jonathan J. Webster. Text Linguistics: The How and Why of Meaning. Sheffield: Equinox, 2014.
- Harris, Murray J. Prepositions and Theology in the Greek New Testament. Grand Rapids: Zondervan, 2015.
- Herskovits, Annette. Language and Spatial Cognition: An Interdisciplinary Study of the Prepositions in English. Studies in Natural Language Processing. Cambridge: Cambridge University Press, 1986.
- Hoffmann, Sebastian. *Grammaticalization and English Complex Prepositions: A Corpus-Based Study*. Routledge Advances in Corpus Linguistics. London: Routledge, 2005.
- Huddleston, Rodney. *Introduction to the Grammar of English*. Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press, 1984.
- Hudson, R.A. English Complex Sentences: An Introduction to Systemic Grammar. North-Holland Linguistics Series 4. Amsterdam: North-Holland, 1971.
- Kühner, Raphael, and Bernhard Gerth. *Ausführliche Grammatik der Griechischen Sprache*. Part 2, 2 vols. Hannover: Hahnsche, 1898–1904.
- Lakoff, George. "Cognitive Semantics." In *Meaning and Mental Representations*, edited by Umberto Eco et al., 119–54. Bloomington: Indiana University Press, 1988.
- Lakoff, George, and Mark Johnson. *The Metaphors We Live By*. Chicago: University of Chicago Press, 1980.
- Lindstromberg, Seth. English Prepositions Explained. Amsterdam: Benjamins, 1998.
- Louw, Johannes P., and Eugene A. Nida. *Greek-English Lexicon Based on Semantic Domains*. 2 vols. New York: United Bible Societies, 1988.

- Luraghi, Silvia. On the Meaning of Prepositions and Cases: The Expression of Semantic Roles in Ancient Greek. Studies in Language Comparisons Series. Amsterdam: Benjamins, 2003.
- Metzger, Bruce M. Lexical Aids for Students of New Testament Greek. New ed. Princeton, NJ: Privately published, 1969.
- Morley, G. David. Explorations in Functional Syntax: A New Framework for Lexicogrammatical Analysis. London: Equinox, 2004.
- ——. "On Group and Phrase in Functional Grammar." Word 55.2 (2004) 217–26.
- Muir, James. A Modern Approach to English Grammar: An Introduction to Systemic Grammar. London: Batsford, 1972.
- Peters, Ronald D. The Greek Article: A Functional Grammar of o-items in the Greek New Testament with Special Emphasis on the Greek Article. Linguistic Biblical Studies 9. Leiden: Brill, 2014.
- Porter, Stanley E. *Idioms of the Greek New Testament*. Biblical Languages: Greek 2. 2nd ed. Sheffield: Sheffield Academic, 1994.
- Linguistic Analysis of the Greek New Testament: Studies in Tools, Methods, and Practice. Grand Rapids: Baker, 2015.
- Verbal Aspect in the Greek of the New Testament with Reference to Tense and Mood. Studies in Biblical Greek 1. New York: Peter Lang, 1989.
- Regier, Terry. The Human Semantic Potential: Spatial Language and Constrained Connectionism. Cambridge, MA: MIT Press, 1996.
- Robertson, A.T. A Grammar of the Greek New Testament in the Light of Historical Research. 4th ed. Nashville: Broadman, 1934.
- Sgall, Petr, Alla Bémová, and Eva Hajcová. "Remarks on the Semantic Features of Cases and Prepositions as Related to Syntax." In *Toward a Calculus of Meaning: Studies in Markedness, Distinctive Features and Deixis*, edited by Edna Andrews and Yishai Tobin, 71–82. Studies in Functional and Structural Linguistics 43. Amsterdam: Benjamins, 1996.
- Taylor, John S. *Linguistic Categorization: Prototypes in Linguistic Theory*. 2nd ed. Oxford: Oxford University Press, 1995.
- Thompson, Geoff. *Introducing Functional Grammar*. 2nd ed. London: Hodder Education, 2004.
- Thrall, Margaret E. *Greek Particles in the New Testament: Linguistic and Exegetical Studies*. NTTS 3. Leiden: Brill, 1962.

Watt, Jonathan M. "From Adams (1885) to Zimmermann (2009): In, With, and Under the Substance of Prepositions." *BAGL* 6 (2017) 5–16.