



# 'I haven't got a clue!'

Assessing negation in classical Greek support-verb constructions

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#### **Abstract**

Support-verb constructions are combinations of a verb and a noun that act as the predicate, as 'made the suggestion' in I made the suggestion that she join. They are frequent, variable, and ambiguous across texts, as well as language-specific in their lexical and syntactic properties. The article examines patterns of negation with δίκην δίδωμι 'to pay the price for one's actions', ὅπλα ἔχω 'to be armed', and συμμαχίαν ποιέομαι 'to ally up' in classical literary Attic. Syntactically and lexically, support-verb constructions can behave like a word or like a syntagm. A word does not have an internal syntax but only an external one; a syntagm has an internal syntax. Negation in support-verb constructions can be achieved either morpho-syntactically or lexically as long as the syntagm character has not faded. Morpho-syntactically, support-verb constructions can be negated by drawing on their external or their internal syntax. Lexical negation can be achieved by means of negative verbs of realisation indicating a zero-degree of multiplication. If available for a support-verb construction, lexical negation appears to add a nuance of intensity; morpho-syntactic negation appears primarily in contrastive contexts.

#### **Keywords**

 $support\text{-}verb\ construction\ -\ verb\ of\ realisation\ -\ syntagm\ -\ negative\ determiner\ -\ intensity\ -\ contrast$ 

#### 1 Introduction

Support-verb constructions (SVCs henceforth)<sup>1</sup> are combinations of a verb and a noun that act as the predicate, as 'made the suggestion' in *I made the suggestion that she join*. We could replace 'made the suggestion' by the simplex verb 'suggested'. SVCs are frequent, variable and ambiguous across texts, thus creating difficulties for translation and analysis applications.

For example, he took a picture does not involve a physical frame (i.e. he picked up a picture frame from the mantel) nor does he took heart involve barbaric behaviour (i.e. he ripped the blood-pumping organ out of someone's chest). Rather, the former refers to photographing and the latter to being courageous. Misunderstanding the former is non-critical, unlike misunderstanding the latter. In less studied or newly discovered texts, we lack contextual knowledge resolving such ambiguity. Understood correctly, SVCs can reveal context-specific nuances of meaning and information packaging.

SVCs are verbal multi-word expressions (Constant et al. 2017: 840–841). Multi-word expressions are 'a lexical unit that consists of more than one orthographical word, i.e. a lexical unit that contains spaces and displays lexical, syntactic, semantic, pragmatic and/or statistical idiosyncrasy' (Nagy, Vincze & Farkas 2013: 329). SVCs consist of a verb and a noun. The noun is the semantic head and the verb the syntactic head (Nagy, Vincze & Farkas 2013: 329). For example, in *I had an idea of what to do*, the combination of *to have* and *idea* fills the predicate slot. The tense and mood are marked on the verb (*had*); the semantic object is attached to the noun (*of what to do*).

In SVCs, 'the predicate structure (or event structure) is determined by more than one element' (Bowern 2008: 165). This makes them complex predicates. While there is a mismatch between the lexical form and the syntactic function of SVCs as regards segmentation, the lexical structure is often reflected in the syntax of SVCs, in that SVCs that tend towards non-compositional lexical units place constraints on the analyticity of the syntagm. One operation in which this surfaces is negation, which can be achieved lexically and morpho-syntactically in SVCs. However, not all SVCs behave in the same way. Rather, SVCs form a heterogenous group of constructions (Kamber 2008).

<sup>1</sup> Many terms exist for the structures in question. 'light-verb construction' is widely used in language-contact studies; 'function-verb construction' is applied primarily to verb-prepositional phrase combinations; 'support-verb construction' comes from a research tradition that considers verb-object structures of primary interest (Giry-Schneider 1987; Gross 1984). Therefore, this term has been chosen.

SVCs have received limited scholarly interest in classical literary Greek (Jiménez López 2016; Marini 2010; Pompei 2006; Jiménez López 2021; Ittzés 2007), primarily due to issues surrounding data collection (e.g. Sag et al. 2002; Savary et al. 2018). This article assesses patterns of negation with SVCs in literary classical Attic historiography, oratory, and prose,<sup>2</sup> therein focusing on what patterns of negation reveal about the lexical and morpho-syntactic structure of SVCs. Section 2 characterises SVCs based on the parameters of ambiguity, variability, and discontiguity. Section 3 reviews patterns of negation with verb phrases in Greek and singles out those that are specific to SVCs. Section 4 considers the lexical structure and Section 5 the morpho-syntactic structure of SVCs in light of the evidence from patterns of negation. Section 6 summarises the results and offers conclusions.

#### 2 Ambiguity, discontiguity, variability

SVCs are verbal multi-word expressions which syntactically can tend towards a word or a syntagm and form a lexical unit that is more or less semantically compositional. We take a word as a unit that 'associates a stable phonological/orthographic form with a coherent semantic category, with its distribution in the language being determined by the syntax' (Taylor 2014: 9).<sup>3</sup> A word in this sense does not have an internal syntax (Taylor 2014: 8), but only an external one. By contrast, a syntagm has an internal syntax.

In a compositional lexical unit, the meaning of the unit is a function of the meaning of its constituent parts. However, this compositionality may fade over time in complex words, such as compounds (Booij 2014: 172), and in multiword expressions (Saviary et al. 2018: 88). The loss of semantic compositionality and syntactic analyticity often go hand in hand. Diachronically, SVCs can univerbate (Schutzeichel 2014; Creissels 2016; Lehmann 2020; Rosén 2020), thus reflecting their internal structure in their external form. Univerbated and non-univerbated forms can co-exist for a long time (e.g. Pl. *R*. 456b12 ἐνομοθετοῦμεν

<sup>2</sup> Corpus of texts: Thucydides, *Histories*, vol. 1–5 (98,945 words); Xenophon, *Anabasis*, vol. 1–4 (32,034 words), *Memorabilia*, vol. 1–4 (36,465 words), *Hellenica*, vol. 1–4 (35,742 words); Antiphon, Speeches 1–6 (18,605 words); Isocrates, Speeches 1–6 and 13 (37,311 words); Isaeus, Speeches 1–8 (25,018 words), Lysias, Speeches 1, 3, 7, 12, 14, 19, 22, 30, 31, 32 (24,130 words); Demosthenes, Speeches 1, 2, 3, 4, 6, 9, 18 (38,873 words); Plato, *Gorgias* (27,790 words), *Phaidrus* (17,271 words), *Republic*, vol. 1–3 (28,688 words); Aristotle, *Rhetoric* (44,312 words), *Politics*, vol. 1–3 (27,436 words).

<sup>3</sup> Opinions are however divided (see Taylor 2014 for further references and discussion).

next to ἐτίθεμεν τὸν νόμον). This reflects the functional difference between the syntagmatic SVC and the univerbate.

Synchronically, SVCs are ambiguous, discontinuous, and variable (Constant et al. 2017). Ambiguity between the literal and idiomatic meanings has already been mentioned. *He took heart* has nothing to do with barbaric behaviour. Ambiguity however also exists between categories of multi-word expressions, e.g. *to make a mistake* is an SVC, but *to make a meal of something* is an idiom (Savary et al. 2018: 88), as through abstraction, reconceptualization, or metaphorical extension of the meaning of the noun (*meal*), we cannot arrive at the meaning of the phrase (Radimský 2011), such that the noun is not the semantic head.

SVCs are discontinuous, in that items can intervene between the verb and the noun of the SVC in what we call the SVC field. In languages with syntax-driven word-order patterns, such as English and French, the intervening elements are modifications of the verb (e.g. adverbs) and the noun (e.g. determiner phrases, attributive phrases) (Pasquer 2017: 168–170) along with parentheticals, which lie outside the sentence grammar (Schneider 2007; Koev 2022). In languages with information-structure-driven word-order patterns, such as Classical Greek (Dik 1995; Celano 2013; Matić 2003), the range of intervening items is in theory unlimited, except if the SVC places constraints on the type and number of intervening items.

Pasquer et al. (2018) only consider the number of syntactic units intervening between the verb and the noun of the SVC (similarly Doucet & Ahonen-Myka 2004). However, verbal multi-word expressions can place constrains on the type of item that can intervene, as e.g. seen in phrasal verbs such as English to look up, in which heavy nominal components are dispreferred between the verb and the particle (Gries 2003). In SVCs, nominal and verbal components intervening between the verb and the noun of the SVC introduce the additional difficulty of ambiguity of the structure, in that it may no longer be clear which verb and/or noun belongs to the SVC. In line with the principle of iconicity, that structural links are reflected in formal proximity (Lakoff & Johnson 1980), and in line with the diachronic potential of SVCs to univerbate, thus eliminating discontinuity, it appears that small and constrained SVC fields correlate with SVCs tending towards a word rather than a syntagm.

SVCs are lexically and morpho-syntactically variable. Tutin (2016) suggests as commonly appearing variations on the SVC the pluralisation of the noun, the variation of the determiner phrase<sup>4</sup> with the noun, the addition of attribu-

<sup>4</sup> Determiner phrases include articles (definite and indefinite), quantifiers, interrogatives, and

tive phrases to the noun (e.g. in the form of adjectives), the availability of morphological passivisation of the SVC, and the permissibility of replacing the noun by a relative pronoun (e.g. *the idea which I had*) (similarly Langer 2004). (1) applies these tests to three English SVCs, one with an abstract noun, one with a concrete noun, which in the SVC is reconceptualised to refer to the process resulting in the concrete object the noun otherwise refers to (Radimský 2011), and one with a noun that is metaphorically extended when used in the SVC.

## (1) Variability in English SVCs

SVCs	to have an idea	to take a picture	to take heart
pluralisation	to have ideas	to take pictures	?to take hearts
determiner phrase variation	to have an / the idea	to take a / the picture	?to take a / the heart
attributive phrase variation	to have a great idea	to take a great picture	?to take great heart
relative construction	the idea which I had	the picture which I took	?the heart which I took
morphological passivisation	(the idea was had	the picture was taken	?the heart was taken
	by me)	by me	by me
Type of noun in the SVC	abstract noun	reconceptualised con-	metaphorically extended
		crete noun	noun

It appears that to take heart is the least variable of the three SVCs selected. It also appears that the three SVCs behave differently with regard to permissible variation. Sheinfux et al. (2019: 66) caution that variability of even otherwise inflexible constructions may be attested in very large corpora. Importantly, adding an adjective such as 'framed' would break up the SVC to take a picture since it would render the noun referential (Savary et al. 2018: 89; Pasquer et al. 2018: 2583). Furthermore, variation can create new form-function pairings if the semantic change attached to e.g. pluralisation exceeds what is expected based on the formal change (e.g. to have reasons / to justify vs to have reason / to be sensible).

Akin to the three English SVCs, we select three SVCs that are (i) of high frequency in the select corpus of literary classical Attic, (ii) the most established ones in the family of SVCs with the same noun, and (iii) representative of the three types of nouns in SVCs (i.e. abstract, concrete and reconceptualised, metaphorically extended). In (2), the criteria of variability are applied:

demonstratives of all kinds (Crystal 2008: 140). Possessives are technically adjectives in Greek (e.g. ὁ ἐμὸς οἶκος the—my—house 'my house').

# (2) Variability of SVCs in Greek

SVC	συμμαχίαν ποιέομαι	τὰ ὅπλα ἔχω	δίκην δίδωμι
	'to make an alliance'	'to be armed'	'to pay the price for one's actions'
Pluralisation	?συμμμαχίας ποιέομαι	?τὸ ὅπλον ἔχω	δίκας δίδωμι
			12/100
			= 12%
Determiner phrase variation	τὴν συμμαχίαν ποιέομαι 7/28	(ὅπλα ἔχω)	(τὴν δίκην δίδωμι)
	= 25%	10/20	6/100
		= 50%	= 6 %
Attributive phrase variation	(τὴν συμμαχίαν ποιέο- μαι)	(τὰ ὅπλα ἔχω)	(τὴν μεγάλην δίκην δίδωμι)
	(Th. 5.39.3 ἰδίαν, Thuc. Hist. 1.63.3 ἀναγ- καίαν)	(X. HG 2.4.12 ἄλλα; Arist. Pol. 1265a23 τοιούτοις)	(Lys. 12.37 and 12.82 ἀξίαν; Th. 5.27.2 and 5.79.1 ἴσας καὶ ὁμοίας)
	2/28		4/100
	= 7 %	2/20 = 10%	= 4 %
Relative construction	-	-	-
		[Arist. Pol. 1253a34– 35 (pronominalised, ὅπλοις χράομαι)]	[Lys. 12.82 pronom- inalised (δίκην λαμβάνω)]
Morphological passivisation	-	_	-
	[Th. 1.35.5 passive (ξυμμαχίαν δίδωμι)]		
Type of noun in the SVC	abstract noun	reconceptualised con-	metaphorically
		crete noun	extended
SVC field (average size)	0.74	0.5	o.3 (sg)
			0.38 (sg and pl)
SVC field (types of items)	ATT (1); DP (1); NEG (1); PRT (2); PRN	PRT (5), NEG (1),	sg: NEG (8); PRN (2); PRT (5); DP (2); ATT
	(1);	VD (a)	(1); VP (2)
	ADV (1); PTC (1);	VP (2)	VP (3)
	clause (1)		pl: PRT (3), ATT (2),
	ciause (1)		clause (1),
			VP (3),
Tokens	28	20	88 (+ 12 plural)
Alternative SVs with same voice / aspect / transitivity	-	-	(παρέχω only in Pl. R. 405c)

<sup>\*</sup>Abbreviations: ATT = attributive phrase; DP = determiner phrase; NEG = negative; PRT = particle; PRN = pronoun; ADV = adverbial phrase; VP = verb phrase; PTC = participial phrase; sg = singular; pl = plural.

(2) shows that neither συμμαχίαν nor ὅπλα allow for variation in number when appearing in an SVC; for δίκην, variation is attested albeit infrequently. Determiner phrases are dispreferred with δίκην, preferred with ὅπλα, and flexible with συμμαχίαν. Attributive phrases are infrequent across SVCs. Felativisation and passivisation is not attested with the select SVCs although appearing with other SVCs with the same nouns. The SVC field is  $\leq$  1 for all three select SVCs, with δίκην having the smallest SVC field and συμμαχίαν the largest.

The only items that appear in the SVC field that are neither attributive nor parenthetical (e.g. Th. 5.31.5 ωσπερ προείρητο 'as mentioned before' with συμμαχίαν ποιέομαι) are several verb phrases. They are modifications of the verb of the SVC which appears in the infinitive. Relevant instances with δίκην / δίκας δίδωμι are: Th. 1.28.2 ἤθελον 'they wanted' (plural SVC); Arist. *Pol.* 1272b9 βούλωνται 'they want' (plural SVC); Antipho 5.73 εἰκός ἐστι 'it is likely' (singular SVC); Antipho 6.38 ἕτοιμοι ἦσαν 'they were ready' (singular SVC). 6 Relevant instances with ὅπλα ἔχω are: X. An. 4.3.6 ἦν 'it was (possible)'; Th. 5.47.5 ἐᾶν 'to let'. Lexical variation of the verb without changing the meaning of the SVC is attested only for δίκην δίδωμι as a one-off (παρέχω in Pl. R. 405c).

Based on the variability profile of each SVC, δίχην δίδωμι seems to tend towards a word, whereas συμμαχίαν ποιέομαι behaves like a syntagm. ὅπλα ἔχω seems to occupy an intermediate position between a word and a syntagm.

## 3 Negation in support-verb constructions

SVCs can be negated in four different ways, as shown in (3), although not all the patterns are applicable to each SVC.

## (3) Patterns of negation with SVCs

-				
	To have an idea	To take a picture	To take heart	
Sentence negator / negative adverb	I haven't got an idea / I <b>never</b> have an idea	I did <b>n't</b> take a picture / I <b>never</b> take a picture	I won't take heart / I never take heart	
Negated superordinate verb	I don't think I have an	I don't think I took a	I don't think I will	
phrase	idea.	picture	take heart.	

<sup>5</sup> Objective genitives do not describe the noun of the SVC but rather provide a semantic object to the SVC (e.g. Lys. 30.16 μηδεμίαν τιμωρίαν ποιήσεσθε 'to take no revenge' with an objective genitive).

<sup>6</sup> In Lys. 12.82, the verb of the SVC appears in a participial form and the auxiliary εἴησαν appears between the noun and the participle of the (singular) SVC.

(cont.)

	To have an idea	To take a picture	To take heart
Negative determiner	I have <b>no</b> idea.	I took <b>no</b> picture (?) / I took <b>no</b> pictures	Ø
Negative verb of realisation	I am <b>lacking</b> an idea.	Ø	Ø

Negation can be by means of a sentence negator or negative adverb (I haven't got an idea | I never have an idea). Negation can be expressed on the superordinate verb (I don't think I have an idea). Negation can be on the noun by means of a negative determiner (I have no idea). Negation can be by means of replacing the SV with a negative item (I am lacking an idea). $^7$  (4) to (7) illustrate these options in classical Attic with the SVC δίχην δίδωμι:

# (4) Sentence negator

έπειδή ἐκείνων δίκην οὐ δέδωκεν

'because he has not paid the price for those actions' (Lys. 30.4)

#### (5) Negated head verb

ούκ οἴει ἐμοὶ καὶ τουτοισὶ ⟨δεῖν⟩ δοῦναι δίκην;

'do you not think that it is necessary that you pay the price for your actions to me and those people' (Lys. 12.3)

## (6) Negative determiner

σὺ μὲν τὸν Ἀρχέλαον εὐδαιμονίζων τὸν τὰ μέγιστα ἀδικοῦντα δίκην οὐδεμίαν διδόντα

'and you praise Archelaos, who wronged greatly but in no way paid the price for his actions' (Pl. Grg. 479d)

## (7) Negative verb of realisation

κινδυνεύουσι γὰρ ἐκ τῶν νῦν ἡμῖν ὡμολογημένων τοιοῦτόν τι ποιεῖν καὶ οἱ τὴν δίκην φεύγοντες, ὧ Πῶλε

'based on those things that have been agreed between us by now, **those who avoid punishment** seem to do something like this, Polos' (Pl. Grg. 479b)

<sup>7</sup> Negative verbs are those that negate the existence of a state or the happening of an event. Negative verbs differ from terminative verbs (e.g. to lose heart or Greek συμμαχίαν ἀνίημι 'to end an alliance') which indicate that an event or state is actively brought to an end.

Of these four ways of negating an SVC, only the negative determiner and the negative verb are specific to SVCs. Sentence negators / negative adverbs and negated superordinate verb phrases are possible with any verb phrase.

The Greek negation system has three peculiarities: first, there are two negator series that are selected by the veridicality of the context of usage; second, there are adverbial negatives and negative determiners; third, Greek is a non-strict negative concord language, which means that two negatives in certain surroundings do not become litotic but rather strengthen each other.

The two negator series are built on  $\sigma \dot{\upsilon}(\varkappa)$  and  $\mu \dot{\eta}$ . The  $\sigma \dot{\upsilon}(\varkappa)$  series appears in veridical contexts, i.e. those referring to a reality, while the  $\mu \dot{\eta}$  series appears in non-veridical contexts (Chatzopoulou 2019: 70). Non-veridical contexts include e.g. volitionals (orders, wishes), negative-bias questions, and purpose clauses, as illustrated in (8) with the conditional protasis:

(8) ἦν δὲ τοῖς μὲν ὀφθαλμοῖς ἐπικούρημα τῆς χιόνος εἴ τις μέλαν τι ἔχων πρὸ τῶν ὀφθαλμῶν ἐπορεύετο, τῶν δὲ ποδῶν εἴ τις κινοῖτο καὶ μηδέποτε ἡσυχίαν ἔχοι καὶ εἰς τὴν νύκτα ὑπολύοιτο·

'It was a protection for the eyes against the snowstorm when someone carrying something black marched in front of the eyes, (it was a protection) for the feet, if one kept moving and **had no rest** and removed the boots during the night.' (X. An. 4.5.13)

Veridical contexts include e.g. factive clauses (that, because), positive-bias questions, and assertions. Furthermore, the  $\mu\dot{\eta}$  series is used for lexical negation and the  $\sigma\dot{\upsilon}(\kappa)$  for constituent negation (Chatzopoulou 2019: 77–78). Since SVCs appear in all contexts, both series are relevant (cf. Butt & Lahiri 2013).

Greek has simplex negators, οὖ(x) and μή, along with complex negatives formed from these simplex negators, including adverbs (e.g. οὐδαμοῦ 'nowhere', οὔποτε 'never'), pronouns, and determiners (e.g. οὔτις 'nobody') (Giannakidou & Zeijlstra 2017). Complex negatives can also be built on the combination of the simplex negator with the particle δέ, e.g. οὐδέποτε 'never' and οὐδείς 'noone' (Gianollo 2021: 2). Denizot (2014) finds that the latter combinations are more recent innovations in Classical Greek. Kiparsky & Condoravdi (2004: 172) consider the latter combinations emphatic. Since SVCs consist of a verb and a noun, both adverbial negatives and negative determiners are possible, as illustrated in (9):

(9) ἀξιῶ δ', ὧ ἄνδρες Ἀθηναῖοι, καὶ δέομαι τοῦτο μεμνῆσθαι παρ' ὅλον τὸν ἀγῶνα, ὅτι μὴ κατηγορήσαντος Αἰσχίνου μηδὲν ἔξω τῆς γραφῆς οὐδ' ἄν ἐγὼ λόγον οὐδέν' ἐποιούμην ἔτερον.

'Athenian men, I ask and beg for this to be remembered throughout the whole trial that I would not have said another word if Aischines had not made allegations beyond the written indictment.' (Dem. 18.34)

Both the emphatic and the non-emphatic series appear with SVCs. Compare (4) above and (9) here.

In non-strict negative concord languages, '[t]he n-word [sc. the Greek complex negatives] can appear without the negative marker [sc. the Greek simplex negatives] in preverbal position or when construed with another preverbal n-word' (Giannakidou & Zeijlstra 2017: 9). In classical Attic, the n-words 'require a negative marker when they are postverbal and disallow one in preverbal position' (Chatzopoulou 2019: 88). Thus, (10) retains a negative meaning, whereas (11) is litotic:

- (10) οὐκ ἐπείθετο τοῖς ἐμοῖς οὐδὲν λόγοις'he did **not** obey my words at all' (Ar. Nu. l. 72)
- (11) οὐδεὶς οὐκ ἔπασχέ τι 'everyone is suffering' (X. Smp. 1.9.4)

Litotic structures, while no longer negative, are of interest as they indicate whether negative determiners and negative verbs are permissible with an SVC. Litotic structures are emphatic assertions (Köhnken 1976; Neuhaus 2016).

(12) summarises the distribution of patterns of negation with the three select Greek SVCs in the select corpus of literary classical Attic:

## (12) Negation with Greek SVCs

	δίκην δίδωμι	ὅπλα ἔχω	συμ- μαχίαν ποιέομαι
Sentence negator / negative adverb	31	1	3
	31%	5%	11%
Negated superordinate verb	5	1	2
	5%	5%	7%
Negative determiner	2	_	_
•	$_2\%$		

(cont.)

	δίκην δίδωμι	ὄπλα ἔχω	συμ- μαχίαν ποιέομαι
Negative verb	3 + 8	_8	0+3
Litotic structure	3% 0+6	_	_
Non-litotic double negative	11% -	_	_
Total of negated passages	41 + 14 41%	2 10%	5 + 3 18%
Total of passages attested in the corpus	100 + 14	20	28 + 3

(12) shows that the SVCs are prevalently negated by means of sentence negators and negative adverbs followed by negated superordinate verbs. These patterns are non-indicative as to the lexical and morpho-syntactic structure of the SVC. However, for two of the three SVCs, negative determiners and negative verbs appear. These are discussed in more detail below.

## 4 Negative verbs of realisation

Negative verbs in the SVC qualify as verbs of realisation rather than support verbs. Verbs of realisation are 'des verbes collocationnels qui ont le comportement syntaxique des  $V_{supp}$ , mais qui, à la différence de ceux-ci, sont sémantiquement pleins: ils sont sélectionnés par le locuteur pour leur signifié et apportent une contribution sémantique' (Mel'čuk 2004: 208). For example, amende 'fine / penalty' combines with the support verb donner 'to give' in French, but also with the verbs of realisation filer 'to slap' (in a colloquial context) and imposer 'to impose' (in an official context). Verbs of realisation replacing support verbs in the SVC are only possible as long as the SVC retains its syntagm character and does not tend towards a word. Negative verbs of realisation, moreover, need to be part of the collocational field of the predicative noun in order to appear in the SVC.

<sup>8</sup> ἀπέχομαι 'to keep away (from)' appears to become an option in Post-Classical times (e.g. Philostratus, Heroicus 35.3; Cyrillus, Commentarius in Isaiam prophetam 70.337.30).

In the lexicon, the combinatorial freedom of items is traditionally cast into the frequency-based notion of collocations. An item is said to collocate with another item if it appears with bespoke item above chance level (Hollós 2010; Crystal 2008: 87). Various measures of lexical affinity exist in order to measure the strength of a collocation (e.g. the *logDice*<sup>10</sup>). Apart from the strength of collocations, the collocational field of an item can be determined by means of concordances<sup>11</sup> drawn from large corpora, that is the range of items that the item in question appears with above chance level.

Most nouns appear with several support verbs along with a range of verbs of realisation. For example, Gross (1998: 27) cites *ce projet* (a + conserve + garde + prend + perd) *de l'importance pour Luc*, where the noun *importance* combines with the support verbs *avoir* 'to have' and *prendre* 'to gain', but also with the verbs of realisation *conserver* 'to maintain', *garder* 'to keep', and *perdre* 'to lose'. Different verbs with the same noun create SVCs that differ in voice (e.g. active, passive), aspect (e.g. durative, terminative, inchoative), and transitivity. Support verbs are not stacked up but replaced. The thus derived families are not predictable (Kamber 2008: 143), e.g. with English *assumption*, one can form *make an assumption*, *accept an assumption*, but not ?*give an assumption*. SVCs are consequently not fully productive.

Traditionally, a pattern is called productive when 'it is repeatedly used in language to produce further instances of the same type (e.g. the past-Tense Affix -ed in English is productive, in that any new Verb will be automatically assigned this past-tense form)' (Onysko 2012: ch. 10; Crystal 2008: 390); a pattern is called non-productive when the creative formation of new items based on it is not possible, e.g. the plural formations *mouse / mice* and *sheep / sheep* in English. In between sit semi-productive patterns 'where there is a limited or occasional creativity, as when a Prefix such as un- is sometimes, but not universally, applied to words to form their opposites, e.g. happy => unhappy but not sad => \*unsad' (Crystal 2008: 390).

Ocollocations are lexical syntagms unlike colligations which are grammatical syntagms (Gries & Stefanowitsch 2004).

The *logDice* is a measure of lexical affinity between two items (Rychlý 2008). The *logDice* calculation is based on the frequency of each item in addition to the frequency of their co-occurrence. The *logDice* has a maximum value of 14, which would mean that two items always co-occur. Since the *logDice* is a frequency- and distance-based measure, it does not take into considerations differing syntactic environments, e.g. SVC as opposed to non-SVC.

<sup>11</sup> Concordances are vertical tables showing the context of the selected item or lemma. Concordances are primarily used in lexical studies to assess the collocational pairings that exist with a lemma.

Finkbeiner (2008: 402–404) qualifies the abstract idea of productivity, in that she suggests distinguishing between the qualitative ('availability') and quantitative ('profitability') aspects. By qualitative, she means the availability of a pattern, e.g. German öffbar 'can be opened' due to the availability of the derivational pattern for verbs in *-nen* such as öffnen (Finkbeiner 2008: 401); by quantitative, she means the degree to which language users make use of such theoretically available patterns. Available patterns do not necessarily find wider acceptance in the community of users. Negative verbs of realisation reflect this situation.

(13) provides a numeric overview of negative verbs of realisation with the three select SVCs:

## (13) Negative verb of realisation

	δίκην δίδωμι	ὄπλα ἔχω	συμ- μαχίαν ποιέομαι
Negative verb	3 + 8 3%	_12	0 + 3
Litotic structure	0 + 6	_	_
Total of negated passages	41 + 14 41 %	2 10%	5 + 3 18%
Total of passages attested in the corpus	100 + 14	20	28 + 3

(13) shows that negative verbs of realisation appear with δίκην δίδωμι and συμμαχίαν ποιέομαι in Classical Attic. For ὅπλα ἔχω, only later texts evidence a negative verb of realisation. Negative verbs of realisation seem to be more preferable with δίκην δίδωμι than with συμμαχία ποιέομαι as calculating the percentage of their appearance out of the total of negated instances shows.

The negative verbs of realisation that appear with the select SVCs are the following:

With δίκην, we find various verbs of movement away from (in non-litotic contexts: φεύγω 'to flee' (4), ἀποφεύγω 'to flee' (2), διαφεύγω 'to flee', ἀπολείπω 'to leave', ἐκλείπω 'to leave'; in litotic contexts: φεύγω 'to flee' (2), παραβαίνω 'to avoid' (2), διαφεύγω 'to flee', ἀποφεύγω 'to flee'). Noticeably, in X. Mem. 4.4.21

<sup>12</sup> See footnote 8 regarding ἀπέχομαι 'to keep away (from)'.

διαφεύγω τὸ δίκην διδόναι 'to flee from paying the price for one's actions' and Dem. 18.133 τὸ δίκην διδόναι διαδύς 'to avoid paying the price for one's actions', the negative verb of realisation is added to the SVC which is nominalised by means of a definite article instead of the usual deletion and replacement operation.

- With ὅπλα, we find a verb of staying / being away from in later texts (ἀπέχομαι 'to keep away from').
- With συμμαχία, we find δέομαι 'to lack, to miss, to be in need of', a verb of desiring something without having it (cf. Latin *carere*).

Different nouns use different types of negative verbs of realisation because lexical affinity between the verb and the noun plays a role as to the permissibility of support verbs and verbs of realisation with the noun in question (Gross 1999: 83). However, note that dixyn didwhi is passive, summaxian preserving the voice are needed.

Verbs of realisation differ from support verbs. Gavrilidou (2004: 299–300) captures this in the following way: 'Le rôle de ces verbes est double: d'un côté, ils doivent apporter aux prédicats nominaux étudiés, des informations de temps, de personne et de nombre (rôle syntaxique); de l'autre, ils dotent la phrase dans laquelle ils se trouvent d'une information aspectuelle et d'une marque d'intensité (rôle sémantique), ils véhiculent donc une information supérieure à celle des verbes supports standards.' She provides, amongst others, the following Modern Greek examples: (i)  $\pi\lambda\eta\mu\mu\nu\rho$ íζω από χαρά 'to overflow with joy', (ii) εκτοξεύω κατηγορία 'to throw blame', (iii) βομβαρδίζω με κατηγορίες 'to bombard with blame'. Gross (1998: 35) sub-divides verbs of realisation into categories. One category is that of intensity in the sense of multiplication (e.g. basic Luc fait un effort / des efforts vis-à-vis Luc accroît / intensifie / réduit son effort; Luc augmente / diminue / raréfie des efforts). Negative verbs of realisation belong to the same category but fall at the extreme end of the size/degree scale (e.g. Luc manque d'énergie).

Negative verbs of realisation appear in litotic structures with δίχην δίδωμι. As mentioned, litotic structures, while no longer negative, are of interest as they indicate whether negative determiners and negative verbs of realisation are permissible with an SVC. The litotic structures with δίχην δίδωμι combine sentence negation (either a sentence negator or a negated superordinate verb) with a negative verb of realisation, see (14) to (18):

(14) οὐκ ἂν ἰδίας μόνον δίκας ἔφευγεν ὁ βιαζόμενος, ἀλλὰ καὶ δημοσία (...)
 'not only can he who was forced not flee any personal fine, but also in public (...)' (Is. 3.62)

- (15) ὅτι κακοῦργος ἀπέφυγον ἀλλ' οὐ τοῦ φόνου τὴν δίκην
   'because the criminal fled, but not the punishment for the murder'
   (Antipho 5.16)
- (16) (sc. δίκην) ἢν οὐδενὶ τρόπῳ δυνατὸν ἀνθρώπῳ διαφυγεῖν '(the fine) from which it is **in no way** possible for a mortal to flee' (X. *Mem.* 4.4.21)
- (17) οὐδεὶς ἄν τολμήσειεν οὔτε δίκην τὴν δεδικασμένην παραβαίνειν 'nobody would dare to avoid the fine **imposed** on them' (Antipho 5.87 and 6.5)
- (18) οὐδενὶ πώποτε οὔτε ἡμεῖς οὔτε ἐκεῖνος δίκην οὔτε ἐδικασάμεθα οὔτε ἐφύγομεν 'neither we nor that man were ever judged and avoided punishment in any way' (Lys. 12.4)

The relevant passages contain a contrastive element (å $\lambda\lambda$ å) or an intensifying element, such as the composite negative adverbial phrase in (16) (Talmy 2007), the figura etymologica in (17) (Giannakis 2021), and the double negative in (18) (Kiparsky & Condoravdi 2004). Thus, the aspect of intensification is retained from the SVC with a negative verb of realisation. However, the litotes pushes intensification into the positive sphere. As mentioned, litotic structures are emphatic assertions.

## 5 Negative determiner phrases

Negative determiners in structures other than SVCs can be attached to the subject and/or object but thus appear outside the predicate phrase. Negative determiners with an SVC qualify as an internal modification thus pointing to an internal syntax still being accessible. While verb phrases, including SVCs, can be modified by an adverb, e.g. he spoke well | he gave the speech well, SVCs can additionally be modified by an adjective and/or a determiner, e.g. he gave a good speech (Didakowski & Radtke 2020: 107). In the latter case, the content of the speech is evaluated; in the former case, the presentation of the speech is evaluated.

Both attributive phrases and determiner phrases can break up SVCs by rendering the predicative noun non-eventive but referential, e.g. he broke her heart vs he broke her chocolate heart (Pasquer et al. 2018: 2583) and he took heart vs he took the heart. The difference between determiner and attributive phrases

is, however, their semantic weight. While attributive phrases can describe the noun in many ways, determiner phrases are largely limited to characterising definiteness and quantity. Negative determiner phrases refer to zero quantity / non-existence of the event referred to by the noun.

The option of modification by means of an attributive and/or determiner phrase disappears when the internal syntax of the SVC fades, e.g. due to lexicalisation, and the SVC thus tends towards a word rather than a syntagm (Didakowski & Radtke 2020: 124). A word in this sense does not have an internal syntax (Taylor 2014: 8), but only an external one. By contrast, a syntagm has an internal syntax. In an SVC that behaves like a word, only the SVC as a whole can be modified; in an SVC that behaves like a syntagm, the verb and the noun can be modified.

(19) provides a numeric overview of negative determiner phrases with the select SVCs:

## (19) Negative determiner phrases

	δίκην	ὄπλα	συμμαχίαν
	δίδωμι	ἔχω	ποιέομαι
Negative determiner	2 2%	_	_
Total of negated passages	41 + 14	2	5 + 3
	41%	10%	18%
Total of passages attested in the corpus	100 + 14	20	28 + 3

(19) shows that of the select SVCs only δίχην δίδωμι allows for a negative determiner phrase. For ὅπλα ἔχω, Section 2 showed that options of modification by means of a determiner phrase and/or attributive phrase are generally limited. This may be so as to avoid breaking up the SVC by rendering ὅπλα non-eventive but referential, i.e. a physical item for the purpose of fighting (e.g. swords, spears, bows and arrows). For συμμαχίαν ποιέομαι, no such constraints seem to exist but no negative determiner phrase is attested. This may be for contextual reasons.

Negative determiner phrases primarily appear in contrastive contexts, e.g. *he gave no speech, but a lecture*. Rather than negating the event of speaking entirely (i.e. *he did not give a lecture / he did not speak*), the choice of a negative

determiner phrase in the SVC means that the type of act of speaking that is referred to is negotiated. This contrastive function of the negative determiner phrase is also drawn upon in an instance with δίχην δίδωμι; see (20):

(20) Αρ' οὖν οὐ περὶ τούτου, ὧ φίλε, ἠμφεσβητήσαμεν, σὺ μὲν τὸν Ἀρχέλαον εὐδαιμονίζων τὸν τὰ μέγιστα ἀδικοῦντα δίκην οὐδεμίαν διδόντα, ἐγὼ δὲ τοὐναντίον οἰόμενος, εἴτε Ἀρχέλαος εἴτ' ἄλλος ἀνθρώπων ὁστισοῦν μὴ δίδωσι δίκην ἀδικῶν, τούτῳ προσήκειν ἀθλίῳ εἶναι διαφερόντως τῶν ἄλλων ἀνθρώπων, καὶ ἀεὶ τὸν ἀδικοῦντα τοῦ ἀδικουμένου ἀθλιώτερον εἶναι καὶ τὸν μὴ διδόντα δίκην τοῦ διδόντος;

Did we not argue about this, my friend—you praised Archelaos, who has committed the most severe crimes but did in no way pay the price for his actions, but I believed the opposite; be it Archeloas or anyone else who does not pay the price for their actions when they commit a crime, it is right for him who committed the crime to be more wretched than him who was harmed and (it is right) for him who did not pay the price for his actions (to be more wretched) than for him who did.' (Pl. *Grg.* 479d)

In (20), Socrates compares the perpetrator who pays the price for his actions, i.e. takes responsibility for them (cf. Lys. 30.23–25), and the perpetrator who does not pay the price for his actions, i.e. does not take responsibility for them. He comes to the conclusion that the perpetrator who takes responsibility for his actions is still better off than the one who does not take responsibility for his actions. The SVC δίχην δίδωμι appears four times in (20), three times in full and at the end with the noun inferred ( $\tau$ οῦ διδόντος). Twice it is negated by means of a sentence negator ( $\mu$ ή) and only in the first instance by means of a negative determiner. The negative determiner is chosen in order to underline the contrast between the maximum gravity of Archelaos' crimes ( $\tau$ ον τὰ μέγιστα ἀδικοῦντα) with the zero degree of his taking responsibility for them (δίχην οὐδεμίαν διδόντα). The parallelism between stem-related ἀδικέω 'to wrong' and δίχην δίδωμι underlines this contrast.

A contrast is also underlined in the second instance of a negative determiner with  $\delta$ ixyy  $\delta$ idomi, see (21). The zero degree of taking responsibility for his actions on the part of the defendant is contrasted with the (outrageously small yet existing) physical payment that has been made:

(21) Οὕτω τοίνυν ἀσελγὴς ὢν καὶ βίαιος καὶ τὴν τῶν ἀδελφῶν οὐσίαν ἀπεστερηκὼς οὐκ ἀγαπῷ τὰ ἐκείνων ἔχων, ἀλλ' ὅτι δίκην οὐδεμίαν αὐτῶν δέδωκεν, ἥκει καὶ τὰ τοῦ πάππου χρήματα ἡμᾶς ἀποστερήσων, καὶ τούτῳ δύο μνᾶς, ὡς ἀκούο-

μεν, **μόνας δεδωκώς** οὐ μόνον περὶ χρημάτων ἡμᾶς, ἀλλὰ καὶ περὶ τῆς πατρίδος εἰς κινδύνους καθίστησιν.

'He is so outraged and violent and has stolen his sisters' property but is not satisfied with owning it; rather, since he has in no way paid the price for his actions, he went so far as to rob us of our grandfather's property; having handed over to this man two *minae*, as we hear, he puts us at risk not only with regard to our property but also with regard to our country.' (Is. 8.43)

In (21), the clause-initial focus position is used to underline the contrastive function of díkh oùdemían aùtôn (Dik 1995; Matić 2003; Celano 2013). In the clause containing the entity contrasted with the zero-responsibility taken (i.e. the payment of dúo mnác mónac), the clause-initial position is filled by a pronominal reference to the defendant (a topic in the discourse) and the focus position is occupied by the reference to the payment (dúo mnác).

Negative determiners can be constituent negators for the noun of the SVC, but they can also take scope over an attribute of the noun only (Chatzopoulou 2019: 77), e.g. *he gave no good speech*, *but a bad one*. Attributive phrases with the noun of the SVC are descriptive adjectives, as in (22):

- (22) (...) πρὶν τὴν πόλιν ἀνάστατον ἐποίησαν τοῦ τολμήσαντος ἐξαμαρτεῖν, ἡμᾶς δ' ὅλης τῆς Ἑλλάδος ὑβριζομένης μηδεμίαν ποιήσασθαι κοινὴν τιμωρίαν, ἐξὸν ἡμῖν εὐχῆς ἄξια διαπράξασθαι.
  - '(...) until they make the city of him who dared to wrong (against them) (sc. Trojan Paris) a ruin, but while the **whole** of Greece is maltreated, we **do not make a concerted effort to take revenge**, although it would be possible for us to carry out actions worthy of prayers.' (Isoc. 4.181–182)

In (22), the negative determiner phrase on the one hand underlines the contrast between the zero degree of revenge for the defendant's actions with the maximum impact (i.e. the whole of Greece) of the defendant's actions. Furthermore, the negative determiner takes scope over the attributive adjective ( $\kappa o \iota v \dot{\eta} v$ ), thus underlining the fact that no concerted effort is made, despite this being possible ( $\dot{\epsilon} \xi \dot{\delta} v \dot{\eta} \mu \hat{\iota} v$ ).

The only relevant example with δίκην does not appear in the SVC δίκην δίδωμι. Rather, in (23), δίκην combines with a verb of realisation.

(23) Άλλὰ τάδε οὐκέτι ἀκούω, ἀλλ' οἶδα σαφῶς καὶ ἐγὼ καὶ σύ, ὅτι τὸ μὲν πρῶτον ηὐδοκίμει Περικλῆς καὶ οὐδεμίαν αἰσχρὰν δίκην κατεψηφίσαντο αὐτοῦ Ἀθηναῖοι, ἡνίκα χείρους ἦσαν.

'However, I no longer just hear these things, but I know for sure—both you and I know—that Pericles at first **was popular** and the Athenians **did not vote any terrible punishment** onto him, (that is) as long as they were worse (in character).' (Pl. *Grg.* 515e)

In (23), Socrates suggests that Pericles' popularity (ηὐδοχίμει) resulted in the Athenians not inflicting any punishment onto him as long as they were worse in character. Socrates continues, however, that once Pericles had made them better people, they convicted him and condemned him to death (Pl. *Grg.* 516a κλοπὴν αὐτοῦ κατεψηφίσαντο, ὀλίγου δὲ καὶ θανάτου ἐτίμησαν 'they convicted him of fraud and shortly after punished him with death'). The negative determiner thus establishes a contrast between the parallel structures οὐδεμίαν αἰσχρὰν δίκην κατεψηφίσαντο and κλοπὴν αὐτοῦ κατεψηφίσαντο. While in Pl. *Grg.* 515e, no horrid punishment is enforced, in Pl. *Grg.* 516a Pericles is convicted of a heinous crime. In (23), the negative determiner seems to take scope over the attributive adjective (αἰσχράν), thus contrasting a zero degree of being horrible (of the punishment) with the comparative degree of being bad (of the Athenians).

Finally, negative determiners can appear as part of double negatives, which adds the aspect of intensity (Kiparsky & Condoravdi 2004), although none appears with the select SVCs, yet see (24):

(24) ἀξιῶ δ', ὧ ἄνδρες Ἀθηναῖοι, καὶ δέομαι τοῦτο μεμνῆσθαι παρ' ὅλον τὸν ἀγῶνα, ὅτι μὴ κατηγορήσαντος Αἰσχίνου μηδὲν ἔξω τῆς γραφῆς οὐδ' ἄν ἐγὼ λόγον οὐδέν' ἐποιούμην ἔτερον·

'I ask and beg to remember this throughout the whole trial, Athenians, that I would not have said another word if Aischines had not put forward allegations that were outside the official ones' (Dem. 18.34)

However, as in (23) above, the scope of the negative determiner in (24) seems to be specifically over the attributive adjective ( $\xi\tau\epsilon\rho\sigma\nu$ ), as Demosthenes is not saying that he did not speak at all but that he was not going to say any more than he had already said.

## 6 Summary and conclusion

We defined SVCs as combinations of a verb and a noun that act as the predicate, as 'made the suggestion' in *I made the suggestion that she join*. Syntactically and lexically, SVCs can behave like a word or like a syntagm. A word

does not have an internal syntax but only an external one; a syntagm has an internal syntax. The lexical structure is often reflected in the syntax of SVCs, in that SVCs that tend towards non-compositional lexical units place constraints on the analyticity of the syntagm, as shown for δίκην δίδωμι 'to pay the price for one's actions', ὅπλα ἔχω 'to be armed', and συμμαχίαν ποιέομαι 'to make an alliance' in Section 2, with δίκην δίδωμι 'to pay the price for one's actions' tending towards a word and συμμαχίαν ποιέομαι 'to make an alliance' most behaving like a syntagm. SVCs form a heterogenous group of structures both lexically and morpho-syntactically.

Section 3 showed that negation in SVCs (i) can be by means of a sentence negator or negative adverb (*I haven't got an idea* / *I never have an idea*), and (ii) can be expressed on the superordinate verb (*I don't think I have an idea*), (iii) can be on the noun by means of a negative determiner (*I have no idea*), and (iv) can be by means of replacing the support verb with a negative verb of realisation (*I am lacking an idea*). Of these, only (iii) and (iv) are specific to SVCs. Since Greek is a non-strict negative concord language, double negatives (e.g. Dem. 18.34 οὐδ' ἄν ἐγὼ λόγον οὐδέν' ἐποιούμην ἕτερον 'and I did not say another word') and litotic double negatives (e.g. Lys. 12.4 οὐδενὶ πώποτε οὔτε ἡμεῖς οὔτε ἐκεῖνος δίκην οὔτε ἐδικασάμεθα οὔτε ἐφύγομεν 'neither we nor that man were ever judged and avoided punishment in any way') also appear with SVCs.

The availability of negation by means of a negative verb of realisation shows that the SVC is not forming a lexical unit but retains an extent of productivity (cf. Section 4). Productivity here specifically refers to the option of forming families of SVCs based on the same noun, e.g. with English suggestion, one can form make a suggestion, have a suggestion, accept a suggestion. The thus derived families are not fully predictable (Kamber 2008: 143), e.g. not ?give a suggestion. Gross (1998: 35) sub-divides verbs of realisation into categories. One category is that of intensity in the sense of multiplication (e.g. basic Luc fait un effort / des efforts vis-à-vis Luc augmente / diminue / raréfie des efforts). Negative verbs of realisation belong into this category but fall at the extreme end of the size/degree scale (e.g. Luc manque d'énergie). With the select SVCs, φεύγω 'to avoid' and compounds appear with δίκην δίδωμι and δέομαι 'to lack' with συμμαχίαν ποιέομαι; ἀπέχομαι 'to be away from' with ὅπλα ἔχω is a later development. Different nouns use different types of negative verbs of realisation because lexical affinity between the verb and the noun plays a role as to the permissibility of support verbs and verbs of realisation with the noun in question. In negative structures, negative verbs of realisation seem to add the nuance of intensity; in litotic structures, negative verbs of realisation and sentence negation represents an emphatic assertion.

The availability of negation by means of a negative determiner shows that the SVC is not forming a word but retains an extent of analyticity as a syntagm (cf. Section 5). The internal syntax of the syntagm is apparently still accessible if each component can be modified individually. Negative determiners are constituent negators for the noun of the SVC, e.g. he gave no speech, but a lecture, but they can also take scope over an attribute of the noun (Chatzopoulou 2019: 77), e.g. he gave no good speech, but a bad one. Negative determiners appear primarily in contrastive contexts. They also appear in double negatives in line with the non-strict negative concord system of Greek (e.g. Dem 18.34 oပ່ຽ' ຂັນ έγω λόγον οὐδέν' ἐποιούμην ἕτερον 'and I did not say another word'). In theory, litotic structures would be possible, but none appears in the data sample. Of the three SVCs, only δίκην δίδωμι allows for a negative determiner phrase. For ὄπλα ἔχω, options of modification by means of a determiner phrase are generally limited, which may be so as to avoid breaking up the SVC by rendering ὅπλα non-eventive but referential. For συμμαχίαν ποιέομαι, no such constraints seem to exist but no negative determiner phrase is attested. This may be for contextual reasons, i.e. just because the morpho-syntactic and lexical structures allow for certain negative patterns, they do not necessarily appear in the corpus (cf. Finkbeiner 2008).

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