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ARTICLE

A few or *several*? Construal, quantity, and argumentativity

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Abstract

This study examines two seemingly similar quantifiers, *a few* and *several*, and argues that the differences between them go beyond the (slightly) different quantities they each denote. Specifically, we argue that *several* construes its nominal complement as composed of individuated entities, which renders them more prominent, and thus a stronger basis in support of a conclusion the speaker is arguing for. We base our analysis on two experiments and a corpus study. The experiments show that there is indeed an argumentative difference between the quantifiers, and the corpus study points to the discourse factors behind it. In comparison with *a few*, *several* is associated with a higher discourse prominence for its complement (greater individuation, significance) and with greater argumentative strength. Based on this data, we characterize the quantifiers' prototypical discourse profiles. A typical instance of *several* occurs in persuasive genres, refers to a not-so-small quantity, construes the plural entity as composed of individuated entities, and contributes to a strong argument. A typical instance of *a few* occurs in non-persuasive genres, denotes a small quantity, construes the entities composing the plural entity as un-individuated, and contributes to a weak or neutral argument.

Keywords: quantifiers; argumentation; distinctive collexeme analysis; discourse prominence; individuation

1. Introduction

It has long been recognized that quantifiers such as *all* and *many* affect discourse beyond the contribution they make through the quantities they denote (Moxey & Sanford, 2000). Thus, the sentence *many people came to the party* produces a particular rhetorical effect because the cardinality of the set of people who came to the party is larger than that of some reference set (e.g., the people expected to attend or those who typically come to this type of party). On this view, (1a) is more convincing than (1b) because *several* expresses a larger quantity than *a few*:

1. a. I think the cake turned out good; several people told me they liked it.
   b. I think the cake turned out good; a few people told me they liked it.

Indeed, prior research has found that *several* is associated with slightly higher quantities than *a few* (Newstead & Coventry, 2000; Newstead et al., 1987; van Tiel et al., 2021 inter alia). Nonetheless, we here argue that focusing on the quantities expressed by the quantifiers portrays only a partial picture of the discourse functions served by the quantifiers. While the larger quantity associated with *several* may render it argumentatively stronger than *a few*, we propose that other factors are involved. Specifically, the two quantifiers differently construe the entities they introduce, such that s*everal* construes its nominal complement as composed of individuated entities. Individuated entities are perceived as more prominent. Interlocutors pay more attention to prominent entities; therefore, they are perceived as important and carry heavier argumentative weight. This study demonstrates how cognitive constructs, such as quantity, focus, and individuation, are related to discourse.

We focus on *a few* and *several* because the two share a similar core which delimits a smallish quantity larger than one. Our first goal is to test our intuition that *several* has a stronger argumentative effect than *a few*, one which goes beyond the quantity it denotes. Our second goal is to show how this difference manifests itself in the distribution of the two quantifiers. Our corpus study explores the distributional patterns of the two quantifiers, as they are reflected in their association with specific adverbs, adjectives, and nouns. The combined results show that, indeed, quantity alone cannot account for (1) the inferential patterns licensed by the two quantifiers, nor for (2) their corpus distribution.

In the cognitive-functionalist tradition, meanings are represented as rich conceptual structures, often including detailed information about how language users experience the world. The current study follows this tradition by showing that even expressions that convey schematic relations, such as quantifiers, reflect our models of the world.

Section 2 introduces the theoretical frameworks that inform this study. Sections 3 and 4 provide the empirical basis for our analysis – two experiments and a corpus study, respectively. We discuss the picture that emerges from the combined results in Section 5 and conclude with Section 6.

2. Preliminaries

2.1. Theoretical background

We adopt a usage-based approach to language (Barlow & Kemmer, 2010; Bybee & Beckner, 2010). According to this approach, language use and language structure shape each other in a feedback loop, which is why meaning and distribution are closely related. Corpus analysis can then test such correlations.

We here focus on the two quantifiers as they figure in the left slot of the English nominal. It is possible to represent our objects of study as two partially specified constructions (Croft, 2001; Goldberg, 1995) in (2), or micro-constructions (Traugott, 2008):

2. a. [(ADV) *a few* $_{NP}$ [(ADJ) N_{PL}]]
   b. [(ADV) *several* $_{NP}$[(ADJ) N_{PL}]]

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A central concept in this study is argumentativity in language, the theory developed by Anscombre and Ducrot (1976, 1983). To illustrate, consider (3a) and (3b):

3. a. I need to clean up my house, but I'm very tired.
   b. I'm very tired, but I need to clean up my house.

(3a) as a whole most likely supports the conclusion that I will not clean my house, while (3b) most likely supports the opposite conclusion. According to Anscombre and Ducrot, this is because *but* coordinations introduce two arguments in support of opposite conclusions, such that the hearer is invited to infer that the speaker is leaning toward the conclusion supported by the second argument. Anscombre and Ducrot's theory focuses on how linguistic units license inferential processes, as a fundamental part of everyday interactions.

Argumentativity can be conceptualized as an intersubjective negotiation over modification of the common ground (Verhagen, 2005, 2015). In cognitive-functional frameworks, linguistic meaning is viewed primarily as evoking and modifying conceptual structures, rather than referring to actual objects and states of affairs (Croft & Cruse, 2004; Langacker, 1987, 1991, 2008; Talmy, 2000). Linguistic structures are seen as instructions issued by the speaker to the addressee (Harder, 1996; Langacker, 2008, p. 460), for example, to conceptualize an object of conception in a certain way. If so, we can consider argumentative direction as an instruction or cue to accept or reject certain inferences as valid in the common ground – the knowledge, beliefs, and attitudes shared by the speech event participants (Clark, 1996).

Argumentative strength is defined as follows:

4. p is a stronger argument than *q* for conclusion C, iff one cannot accept using *q* for C without also accepting the validity of *p* as an argument for C, though one can accept p but not q as a valid argument for C (Ducrot, 1980).

Thus, saying that *several* is argumentatively stronger than *a few* means that for two sentences that differ only in whether they contain *a few* or *several*, an addressee who accepts a conclusion based on the sentence with *a few* will also accept a conclusion that relies on the sentence with *several*, but not necessarily vice versa.

When comparing argumentative strength, we need to consider argumentative orientation. Consider the following examples in which the second clause provides evidence for the conclusions stated in the first:

5. a. The exam was easy, a few students failed
   b. The exam was easy, few students failed
   c. The exam was easy, several students failed

One can argue that *a few* is argumentatively stronger than *several*, because (5a) is more convincing than (5c). Nonetheless, the reason for this argumentative difference is that *a few* introduces a *weaker counterargument* to the conclusion that the speaker is trying to establish that the exam was easy. At the same time, (5c) is less convincing overall, because *several* introduces a stronger counterargument to that same conclusion. The difference between (5a) and (5b) further illustrates the role of

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argumentative orientation by contrasting *a few*, which carries a positive argumentative orientation, with *few*, which carries a negative argumentative orientation. That is, it directly contributes to the conclusion opposite the one supported by *a few*, making the overall sentence in (5b) more convincing.[1]

Crucially, however, the difference between (5a) and (5c) is not due to a quantity difference alone. On the view that language is primarily an interactional phenomenon, utterances are rarely isolated events. They are rooted in discourse, comprised of chains of usage events linked by inferential steps. Speakers design their utterances so that their addressees can readily identify what is to be added to that common ground. Crucially, the addressee need not conceptualize the object of joint attention in a fully detailed manner. Instead, they need to understand which inferences are licensed by the speaker (see Pander Maat, 2006, for a similar analysis for gradable adjectives). Argumentativity is then a crucial cue.

2.2. Quantifiers and their meaning

The view that quantifiers express relations between sets is captured by Barwise and Cooper's (1981) theory of generalized quantifiers. Some simplified examples for the meaning of quantifiers according to this theory are listed in (6).

6. a. All A are B: $|A| \subseteq |B|$
   b. Most A are B: $|B| > |A|/2$

There are several problems with this account. First, seemingly synonymous quantifiers, such as *most* and *more than half*, exhibit differences in the inferential patterns they license and in the way they are used in discourse (Ariel, 2004; Hackl, 2009). Moreover, the theory cannot account for data showing that "synonymous" quantifiers express different quantities, in a distributional pattern reflecting prototype effects (van Tiel et al., 2021).

Langacker (1991, 2016) offers a characterization of quantifiers from a cognitive linguistic perspective. In line with Milsark (1976), Langacker divides quantifiers into relative quantifiers, such as *all* and *most*, and absolute quantifiers. *A few* and *several* are of the latter type. While the primary function of relative quantifiers is grounding some subset (with respect to the whole set it is a part of), absolute quantifiers are adjectival. That is, they profile a relationship in which their complement maps onto a portion of a measurement scale, much like adjectives such as *small* or *pretty*. However, when in initial position, absolute quantifiers too function as grounding elements (Langacker, 2016). As such, they instruct the interlocutor to direct their attention to an intended discourse referent (Langacker, 2008, ch. 8).

Absolute quantifiers are semantically characterized along four parameters: the quantified mass (plural, in this case), the measurement scale (quantized or continuous), whether the quantity is assessed in reference to the origin of the scale or the scalar norm, and whether the assessment is made by scanning the scale in a positive or negative direction (Langacker, 2016). *A few* and *several* differ only with respect to one of these parameters – the type of scale. *Several* evokes a quantized scale, while *a few*

[1]This is a simplification of Anscombre and Ducrot's idea of argumentative orientation. For a more detailed account see the discussion of French *peu* 'little' and *un peu* 'a little' in Anscombre and Ducrot (1989).

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evokes a continuous scale. Langacker does not elaborate on how this difference manifests itself in their use.

As for quantity, many factors may affect the specific quantities or proportions denoted by a quantifier, including the nature of the counted entity and the size of the reference set (Newstead et al., 1987). In these studies, *a few* is associated with smaller values than *several*. It is, therefore, tempting to conclude that this quantitative difference is responsible for all the differences between the two quantifiers. Nevertheless, there are several problems with this conclusion. First, there is a significant referential overlap between the two quantifiers. That is, they can often be used to describe the same quantities. Second, there are differences in the behavior of the two quantifiers when they are used in a context in which there is a salient background set.[2] Consider the difference in felicity between (7a) and (7b):

7. a. In the U.S. elections, a few people voted for the third-party candidate.
   b. ?? In the U.S. elections, several people voted for the third-party candidate.

Several sounds odd when associated with very large numbers (U.S. voters), while *a few* doesn't. This is surprising under the view that reduces the differences between the quantifiers to the set size denoted by the quantified NP, since it is *several*, rather than *a few*, that is supposed to denote a larger quantity.

Third, as this study argues, quantity by itself is not enough to predict the inferential patterns licensed by the quantifiers and their distribution in the corpus. As argued in the previous subsection, the communicative intention of a speaker using a vague quantifier is not necessarily to (only) communicate a certain quantity. Facilitation of certain argumentative inferences is at least sometimes equally important. As Nouwen (2010, p. 240) argues, "Elimination of vagueness from a term, strips this term from some of its key communicative functions." While quantity plays a role in facilitating these inferential patterns, we identify other factors as well: individuation and argumentative significance.

3. Experimental studies

We conducted the first experiment to test whether there is an argumentative difference between *several* and *a few* and, furthermore, whether this difference should be attributed to factors beyond the quantity expressed by the quantifiers (at least sometimes). The second experiment builds on some of the results of the first and aims to see whether *several* and *a few* patterns with purely quantitative items (i.e., numerals) with respect to dialog coherence.

Participants of both experiments were native speakers of American English, raised as monolinguals, with no diagnosis of dyslexia, autism, or mild cognitive impairment. The participants were recruited over the commercial platform Prolific (www.prolific.co.uk), and they provided informed consent before participation in the study.

Analyses were carried out using R (R Core Team, 2021). Regression analyses were conducted using the packages lme4, lmerTest, car, MuMin, emmeans, and ordinal (Barton, 2022; Bates et al., 2015; Fox & Weisberg, 2019; Kuznetsova et al., 2017). The

[2]We thank one of our referees for bringing this fact to our attention.

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data and the scripts used for the analyses are available at https://osf.io/kxaht/?view_only=00503082a44b4207bb505bd04f658bc2.

3.1. Experiment 1

Participants read sentences that reviewed products. All the target items were negative reviews, mentioning specific problems with the product. The quantifier specifying the number of problems was varied (e.g., *the laptop arrived with [**a few** / **several**] dents*). Participants were then asked to assess the writer's satisfaction with the product. We assumed that if *several* is argumentatively stronger than *a few*, products reviewed with sentences containing *several* will receive lower ratings than those with *a few*. Next, in order to see whether raw quantities can account for argumentative strength, participants were also asked to assess the quantity expressed by the quantified NP for each item. The results from both tasks were taken into account in the statistical analysis.

3.1.1. Participants

Ninety-three adults participated in the study (47 females, mean age = 42.7, range = 20–75, *SD* = 14.5). Six participants were excluded due to failure to follow the experiment's instructions, and five others because their answers to the debriefing question at the end of the study indicated they noticed experimental manipulation.

3.1.2. Materials

The experimental items were comprised of four sentence types, each containing one of two quantified nominals (a total of eight items). Each sentence described an item with a problem. The items were divided into two lists with four items each, such that each participant saw two of the sentences with *several* and two with *a few*. Items appeared in a pseudo-random order. Each participant saw one sentence from each type (only one nominal per type).

The experimental items and names used for coding the results are in Table 1.

3.1.3. Task and procedure

Participants were told that they were going to read sentences taken from product reviews and then answer questions about them. For each experimental item, participants were asked to perform two tasks. The first was a customer satisfaction (CS) evaluation. Participants were presented with a sentence and asked, "Based on this review, how satisfied is the customer with the product they purchased?" To answer, participants marked their assessment with a ticker on a scale from "very satisfied" to "very unsatisfied." The second task was to assess the quantity denoted by

Table 1. *Items used in Experiment 1.*

Item	Name
The laptop arrived with [*a few/several*] dents.	Laptop
The notebook had [*a few/several*] missing pages.	Notebook
The remote control has [*a few/several*] useless buttons.	Remote
The art set had [*a few/several*] missing crayons.	Art set

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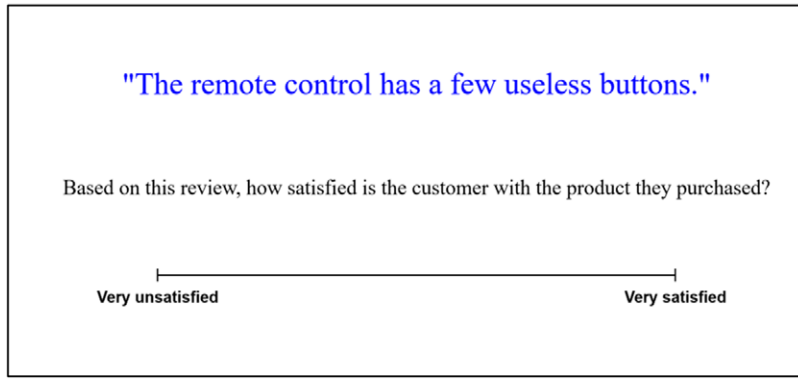

Figure 1. An experimental item and a CS evaluation task.

the quantified NP. Once again, participants were shown the sentence and asked, "Based on this review, how many dents did the laptop have?" Here they had to type their answer. Each occurrence of an item was separated by two or three filler items. The quantity assessment task appeared only after the participants completed all four CS evaluations. This simulated a more natural understanding of quantifiers in discourse and ensured that participants did not consciously think about quantities when performing the CS evaluation just because of the experimental manipulation.

We included 29 filler items, for which participants performed one of four tasks. The first task was a CS evaluation, identical to the one in the experimental task. In the second, participants were asked to mark on a scale how likely it is that the customer would recommend the product to friends or family. In the third, participants were asked how much they thought the customer paid for the product, and they needed to respond by typing in a value. In the fourth task, used as catch trials, participants were asked about some quantity mentioned in the sentence. All filler items were taken from actual product reviews on Amazon. Some sentences presented a positive attitude towards the product, some negative, and some mixed. Four sentences were repeated twice with different tasks.

3.1.4. Results and analysis

Items with *a few* received a higher average CS score (M = 30.79, SD = 19.17) than items with *several* (M = 18.9, SD = 16.32). Fig. 2 presents the means and interquartile ranges of the CS scores per quantifier. In all boxplots used in this article, the boxes indicate the interquartile ranges, the vertical lines are the medians, and the diamond indicates the mean. The whiskers extend to the interquartile range × 1.5 in each direction or the minimum/maximum values.

Fig. 3 presents the distribution of CS scores grouped by items. The pattern in which items with *several* received lower CS scores than those with *a few* is repeated in every item. The means, medians, and SDs for each item are listed in Table 2.

As for quantity, items with *a few* received a mean quantity assessment of 3.71 (SD = 1.95), while items with *several* received a mean score of 5.47 (SD = 3.46). This finding is significant ($t(293.34) = 6.059$, $p < .001$) and replicates previous research on quantifiers and quantities. Fig. 4 presents the means and interquartile ranges of the assessed quantity per quantifier.

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Figure 2. Boxplot representing the distribution of CS scores per quantifier. The boxes indicate the interquartile ranges, the vertical lines are the medians, and the diamond indicates the mean. The whiskers extend to the interquartile range × 1.5 in each direction or the minimum/maximum values.

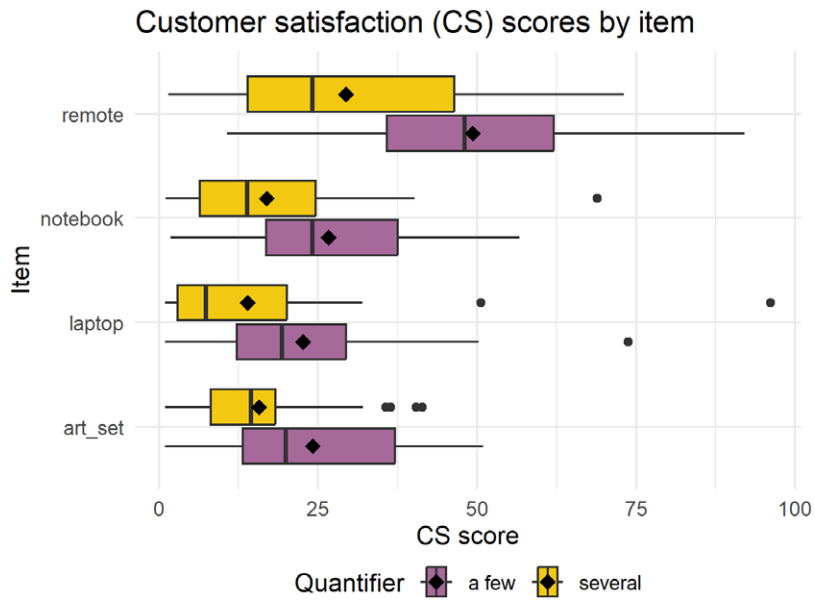

Figure 3. Boxplot representing the distribution of CS scores grouped by items. The boxes indicate the interquartile ranges, the vertical lines are the medians, and the diamond indicates the mean. The whiskers extend to the interquartile range × 1.5 in each direction or the minimum/maximum values.

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Table 2. Means, SDs, and medians of CS scores grouped by item.

Item	Quantifier	*n*	*M*	*SD*	Median
Art set	*A few*	46	24.2	15	19.9
	Several	47	15.7	10.6	14.5
Laptop	*A few*	49	22.7	15.9	19.7
	Several	46	14	16.8	7.4
Notebook	*A few*	45	26.6	14.7	24.1
	Several	49	16.9	13.7	13.8
Remote	*A few*	49	49.3	18	48
	Several	45	29.4	19.1	24.1

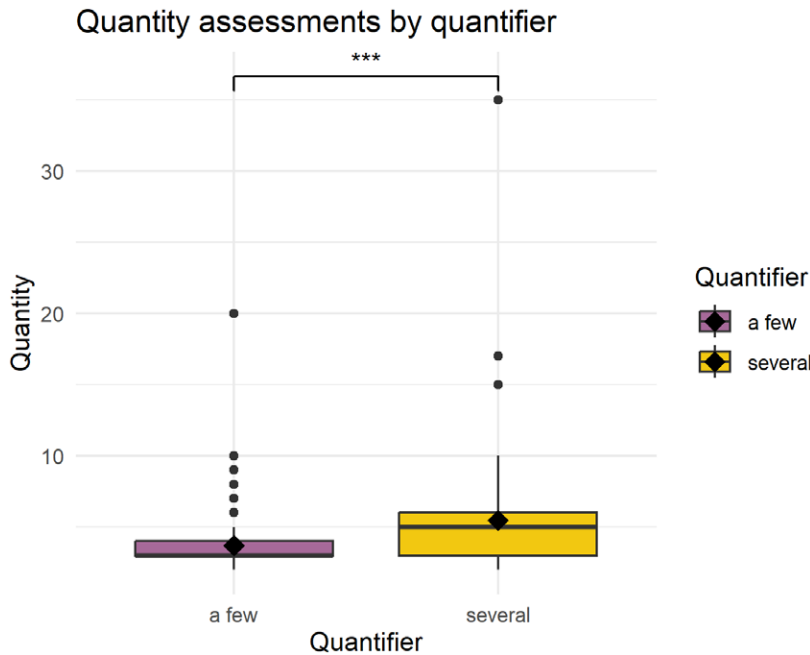

Figure 4. Boxplot representing the distribution of assessed quantity per quantifier. The boxes indicate the interquartile ranges, the vertical lines are the medians, and the diamond indicates the mean. The whiskers extend to the interquartile range × 1.5 in each direction or the minimum/maximum values.

3.1.4.1. Regression analysis. We fitted two mixed-effects linear models to see whether the quantifier has an effect beyond the quantity associated with it. The first is a model with fixed effects for z-scored quantity and random intercepts for participants and items. The second is a model with fixed effects for z-scored quantity and quantifier (factors were sum-coded). Both models included random intercepts for participants and items. We did not include interactions as we do not have a hypothesis regarding their interpretation. Variance inflation factors for the second model indicated no problems with collinearity. To compare the two models, a likelihood ratio test was performed using the function anova(), which revealed a significant difference between models ($\chi^2(2) = 40.45$, $p < .001$).

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Table 3. Linear mixed-effects model. Formula: CS score ~ quantity + quantifier + (1|participant) + (1|item).

Fixed effects	Estimate	SE	*t* value	*p*
Intercept	25.13	4.26	5.90	<0.01
Quantity	−2.71	0.89	−3.04	<0.01
Quantifier (*several*)	−10.12	1.53	−6.62	<0.001

R^2 marginal = 0.12, R^2 conditional = 0.44.

The mixed-effects model coefficients for the second model are presented in Table 3. We see that an increase in quantity has a negative impact on the CS score; when the assessed quantity of an item is higher, it is more likely to receive a lower CS score. Additionally, the choice of *several* as a quantifier also leads to lower CS scores.

3.1.5. Discussion

Results from the experimental study indicate that *several* is indeed argumentatively stronger than *a few* – negative reviews based on *several* "problems" received lower CS scores than those based on *a few*. This means that participants interpreted the negative traits denoted by the quantifier's complement as having more weight in their estimation of the speaker's satisfaction with the products. Interestingly, however, while quantity was indeed a significant predictor, adding the quantifier as an additional predictor turned out to be significant and increased the variance predicted by the model. In other words, the difference in quantities is not sufficient to account for the difference in argumentative strength. Factors other than quantity must have influenced the participants' evaluation of the reviews. The experimental results, however, do not tell us what these factors are.

3.2. Experiment 2

Number words lack argumentative orientation (Anscombre & Ducrot, 1989).[3] They can then serve as a baseline for assessing the argumentative work performed by quantifiers in discourse. We used the average quantity estimates from the previous study (*four* and *six*) to see how *a few* and *several* compare to their numerical counterparts. By comparing the behavior of quantifiers to that of numbers, we can learn whether the difference between *several* and *a few* is primarily quantitative or not. As a second point of reference, we sought out two quantifiers that express the same quantities. If such a pair exists, it would be reasonable to assume that its members will differ on another, non-denotational dimension. We chose a pair of multal quantifiers, *a lot* and *many*, which, according to previous studies, are associated with roughly the same quantities (van Tiel et al., 2021). Although the evidence for the quantitative equivalence is not very robust, we nevertheless decided to include the multal pair, at least as an approximation to a referentially equivalent pair of quantifiers.

[3]As pointed out by one of the reviewers, there are some exceptions. One example is the special hyperbolic use of numerals, which can convey an argumentative stance (such as, "There were a million people at the party").

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3.2.1. Participants

Four hundred and eighty participants (240 females, mean age = 39.56, range = 18–80, *SD* = 13.58) took part in the study.

3.2.2. Materials

The experimental items were comprised of three pairs of quantity expressions paired with two different plural nouns, *problems* and *books* (a total of six items). Items appeared in dialogs. In each dialog, the first interlocutor predicates some quantity, and the second interlocutor replies with another quantity expression. Each item appeared in one of two conditions – negation or affirmation. In "negation" (8), the second interlocutor prefaces their response with *no*, while in "affirmation" (9), the response is prefaced with *yes*.

8. A: She has a few problems.
   B: No, she has several.

9. A: She has a few problems.
   B: Yes, she has several.

In addition, the order of the members of each pair alternated, such that half of the times one member appeared in A's utterance and the second in B's, and half of the times the order was reversed. We used a single-trial experimental design, in which each participant sees only one item in one condition.

3.2.3. Task and procedure

Participants had to rate the coherence of the dialogs on a seven-point Likert scale (1 – not coherent at all, 7 – totally coherent).

3.2.4. Predictions

We predicted that dialogs involving numbers would receive higher coherence ratings in "negation" than in "affirmation," because *four* and *six* are clearly different in quantity, but carry no argumentative force. Thus, the negation can easily target the quantitative difference, while the affirmation is left with no target. We expected that the two multal quantifiers, *many* and *a lot*, would show the opposite pattern, with higher ratings in "affirmation" than in "negation," inasmuch as they express the same quantity. Here, the affirmative response confirms quantitative information, while the negation has no argument (but see the discussion in Subsection 3.2.6). If *a few* and *several* are only different in quantity, they should behave like the number dialogs and favor "negation." However, if they stand for roughly the same quantity, they should behave more like denotationally equivalent quantifiers (*a lot* and *many*, presumably) and favor "affirmation."

3.2.5. Results and analysis

The results of the study are summarized in Table 4 and Fig. 5. *Many* and *a lot* were acceptable in the affirmation condition ($M = 6.19$, $SD = 1.11$), but much less so in the negation condition ($M = 4.08$, $SD = 1.83$). For the numbers, the coherence ratings were very low in the affirmation condition ($M = 2.01$, $SD = 1.35$) and very high in the

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Table 4. Means, SDs, and medians of coherence ratings.

Condition	Quantifiers	*n*	*M*	*SD*	Median
Affirmation	*A few + several*	86	5.78	1.45	6
	Four + six	80	2.01	1.35	2
	Many + a lot	73	6.19	1.11	7
Negation	*A few + several*	82	5.32	1.72	6
	Four + six	73	6.23	1.35	7
	Many + a lot	86	4.08	1.83	4

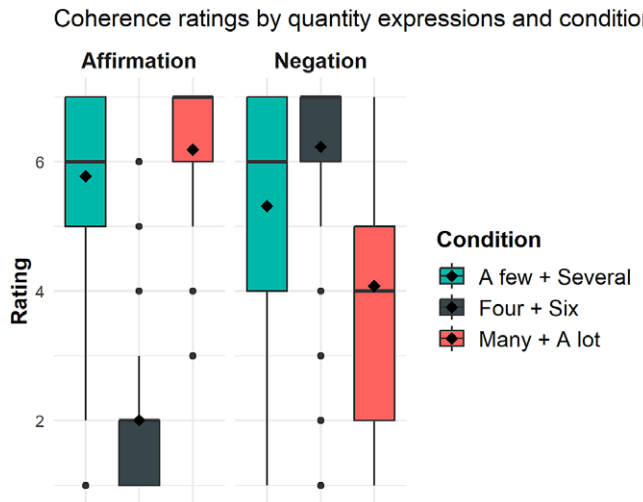

Figure 5. Coherence ratings by quantity expressions and condition. The boxes indicate the interquartile ranges, the vertical lines are the medians, and the diamond indicates the mean. The whiskers extend to the interquartile range × 1.5 in each direction or the minimum/maximum values.

negation condition ($M = 6.23$, $SD = 1.35$). Finally, for *a few* and *several*, the coherence ratings were similar in the affirmation ($M = 4.78$, $SD = 1.45$) and negation ($M = 5.32$, $SD = 1.72$) conditions, indicating that participants found the dialogs generally coherent, although not maximally so.

A cumulative link model was fitted with coherence rating as a response variable and quantifiers, condition, and an interaction term between them as call variables. Factors were sum-coded. The model's coefficients are presented in Table 5. The model revealed a significant effect of quantifiers on coherence rating, with *a few* and *several* leading to higher ratings than the grand mean (estimate = .59, SE = .12, $p < .001$) and *four* and *six* leading to lower ratings (estimate = −.8, SE = .13, $p < .001$). Additionally, the model showed a significant effect of condition, with affirmation leading to lower ratings (estimate = −.36, SE = .09, $p < .001$). The interaction between quantifiers and condition also had a significant effect, with *a few* and *several* in affirmation resulting in higher scores (estimate = .59, SE = .12, $p < .001$) and *four* and *six* in affirmation resulting in lower scores (estimate = −2.1, SE = .15, $p < .001$).

Post-hoc pairwise comparisons with Bonferroni correction showed that in the affirmation condition, *four* and *six* received significantly lower coherence ratings

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Table 5. Cumulative link model.

Fixed effect	Estimate	SE	*z* value	*p*
Quantifiers (*a few* + *several*)	0.59	0.12	4.83	<0.001
Quantifiers (*four* + *six*)	−0.8	0.13	−5.93	<0.001
Condition (affirmation)	−0.36	0.09	−4.11	<0.001
Quantifiers (*a few* + *several*) × Condition (affirmation)	0.59	0.12	4.94	<0.001
Quantifiers (*four* + *six*) × Condition (affirmation)	−2.1	0.15	−13.9	<0.001

Formula: Rating ~ quantifiers × condition. Log-likelihood = −719.91; AIC = 1461.82.

compared to the negation condition ($p < .001$). Conversely, *a lot* and *many* received significantly higher coherence ratings in the affirmation condition than in the negation condition ($p < .001$). The difference was not significant for *a few* and *several*.

3.2.6. Discussion

The results of the study showed that, as predicted, the number dialogs were accepted in the negation condition and rejected in the affirmation condition. Additionally, the "yes" responses for the multal quantifiers received significantly higher ratings than the "no" responses, which is in line with the predicted patterns for referentially equivalent expressions. However, the "no" responses for the multal quantifiers were not completely rejected but received a low acceptability rate. We consider two possible reasons that can account for this. The first is that while the referential difference between the two quantifiers is small, it is nevertheless large or salient enough for some participants to be targeted by negation. The second interpretation is that there is some other difference between the two quantifiers, such as stance (with the newer *a lot* being more subjective than the older *many*), although the exact nature of this difference is unclear at this point. We find the second explanation more appealing in light of the high ratings in "affirmation," which are unexpected under a salient quantitative difference.

Notably, *a few* and *several* did not pattern exactly the same as either pair of quantity expressions. However, the differences between the mean scores in both conditions indicated that *a few* and *several* are more similar to the multal quantifiers: the difference between the mean ratings is .46 for *a few* and *several*, 2.11 for *many* and *a lot*, and −4.22 for the number pair. If the reason for the response pattern of the multal quantifiers is that they mainly differ on a non-objective level, this could indicate that the primary difference between *a few* and *several* is not the quantity difference, but rather the non-objective (argumentative) difference.

Crucially, the fact that *several* and *a few* are so different from the numbers supports our argument that quantity alone cannot fully explain the difference between these two quantifiers. However, it is still unclear what other factors may contribute to this difference. We turned to corpus data in order to find out.

4. Corpus study

4.1. Motivation

As previously mentioned, the meanings of expressions both shape and are shaped by the contexts they occur in. We therefore hypothesized that discourse distribution

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might reflect different argumentative strengths for the two quantifiers as well as other meaning features possibly contributing to this difference. To test this hypothesis, we examined the lexemes and constructions that combine with the quantifiers to form the nominal, including the plural nouns serving as the nominal head, the adjectives modifying them, and other adverbs and constructions modifying the entire nominal. If the only difference between the quantifiers is in the quantities they communicate, we would expect that (1) there would be only few lexemes that prefer one quantifier over the other, and (2) any differences in preference would be explained by appealing to quantities. We also examined the genres associated with the quantifiers to determine whether register can explain the preferred patterns of association for the quantifiers.

This type of analysis allows us to utilize large datasets, including tens or even hundreds of thousands of tokens (the size of the dataset is discussed in the next subsection). It also has the advantage of limiting the degrees of freedom for researchers, leading to results that are easier to evaluate.

4.2. Data collection

Data were extracted from the Corpus of Contemporary American English (COCA) (Davies, 2008–). First, all sentences with the quantifiers were extracted. The sentences were then parsed using the spaCy library for Python (Honnibal et al., 2020), with the model "en_core_web_lg." spaCy's syntactic parser automatically identifies "noun chunks," which correspond to noun phrases. In addition, it identifies the "root" of the chunk, which corresponds to our definition of head noun in the present study. The head nouns identified were cleaned, removing interjections, punctuation marks, and other tokens mistakenly identified as head nouns.

In order to collect the adjectives modifying the head nouns, all tokens from the noun chunk that were not tagged as an adjective or verb were removed (we kept tokens that were tagged as verbs because they included deverbal adjectives, such as *dedicated*). Additionally, we excluded cases in which more than one adjective modified the head noun, because incorporating them as part of the analysis is not straightforward, while at the same time they are very infrequent (a few hundred cases for each quantifier). Finally, we removed tokens that were tagged as adjectives but were actually determiners (e.g., *many, few*) or modifiers of adjectives (e.g., *very, really*).

Table 6 shows the total and normalized frequencies per 1 million words (in parentheses) of each quantifier in different constructions.

4.3. Method

For the nouns and adjectives, we conducted a Distinctive Collexeme Analysis (DCA) (Gries & Stefanowitsch, 2004), which is part of the family of collostructional methods

Table 6. *Total and normalized frequencies per 1 million words (in parentheses) of each quantifier with different constructions.*

	Determiner	Partitive	Other	Total
Several	189,676 (195.68)	10,473 (10.8)	38,107 (39.31)	238,256 (245.8)
A few	198,814 (205.11)	11,790 (12.16)	97,736 (100.83)	308,336 (318.1)

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(Stefanowitsch & Gries, 2003). This approach is useful for identifying distinctive co-occurring lexemes that occupy a specific slot of each construction, thus distinguishing them significantly from each other. A collexeme is a lexeme that occurs in a particular slot within some pattern. In the present study, the analysis identifies the collexemes that distinguish *a few* from *several*.

We conducted two separate analyses, one for the head noun slot, and another for the optional adjective slot. We first calculated an association measure for each collexeme (i.e., noun or adjective that co-occurs with one of the quantifiers) based on a contingency table. The frequencies we relied on for computing the strength of association are (1) the frequency of the collexeme with *a few*, (2) the frequency with *several*, (3) the frequency of *a few* with all other collexemes, and (4) the frequency of *several* with all other collexemes. Table 7 is an example of such a table for the head noun *minutes*. Data were filtered to only include nouns that co-occur at least 20 times with at least one of the quantifiers, and adjectives that co-occur at least 15 times with at least one of the quantifiers.

The output of the DCA is a list of all the collexemes that figure in the selected slot, together with a number that stands for the strength of the association. We used the association measure log-likelihood, or G^2 (Dunning, 1993). A G^2 score of 3.85 corresponds to a p-value of .05. To determine the direction of the association, when the expected frequency of co-occurrence with *several* was higher than the observed frequency, the G^2 scores were multiplied by -1. Thus, a positive score indicates that a collexeme is distinctive of *a few*, and a negative score indicates that it is distinctive of *several*.

For the adverbs and constructions that mark argumentativity, we conducted a modified DCA to examine the association of the quantifiers with constructions that explicitly mark different aspects of argumentativity. The list of constructions was compiled by the authors. It includes two focus operators (*only* and *just*), the exceptive *except for*, and *but* in its adversative and non-adversative uses.

Only and *just* mark their complements as weak arguments. The same applies to exceptives that typically mark their complements as insufficient counterarguments.

Table 7. A contingency table for the noun minutes that serves as input for the DCA.

	A few	*Several*	Row totals
Minutes	12,468 (7,254.58)	1,668 (6,881.42)	14,136
Other collexemic nouns	161,039 (166,252.4)	162,914 (157,700.6)	323,953
Column totals	173,507	164,582	338,089

The numbers in parentheses indicate the expected frequencies.

Table 8. Number of instances used in the current study.

	All extracted instances	adverbs and constructions	Number of instances for the DCA for adjectives
A few	198,814	197,863	17,066
Several	189,675	188,924	20,712
Total	388,489	386,787	37,778

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The non-adversative functions of *but* are "exceptive" (as in *all neighbors but Cohen paid …*) or restrictive focus (*he is but a child*). Their argumentative contribution is like the other focus particles. In contrast, *but*'s adversative function marks its second conjunct as argumentatively strong (see example (3)), which is the position we examined.

For each construction, we calculated a G^2 score in the same manner as in the DCA. Since *but* is polysemous, we randomly extracted 200 instances with each quantifier, counted the number of relevant senses, and extrapolated the total co-occurrence frequency. Finally, we examined the distribution of the two quantifiers across the different genres in COCA to see if it can account for the results of the DCA.

4.4. Results and analysis

4.4.1. DCA – results

4.4.1.1. Nouns. Overall, the dataset contained 1,376 noun types; 717 nouns were distinctive for *several* and 385 for *a few*. This means that only <20% of the nouns (271, 19.7%) did not have any preference for one of the quantifiers. Since the objective difference between the two quantifiers is rather minor, this result is surprising.

Table 9 presents the top 15 nouns distinctive for each quantifier, ranked by their strength of association.

4.4.1.2. Adjectives. Overall, the dataset contained 369 adjective types; 143 adjectives were identified as distinctive for *several* and 134 for *a few*. Again, only about a quarter of the adjectives were not distinctive for any quantifiers (92, 24.9%).

Table 10 presents the top 15 adjectives distinctive for each quantifier, ranked by their strength of association.

4.4.1.3. Discourse prominence. Looking at the results of the DCA, we argue that they present evidence for *several*'s complements having a higher discourse prominence. This manifests itself differently in nouns and adjectives. For nouns, discourse prominence is achieved via individuation, which we measured as an association with the partitive construction. For adjectives, it is achieved by adjectives of significance and individuation. The analyses were carried out on the full list of significant collexemes of each type.

Prominence is related to strong argumentativity because prominent entities are more difficult to ignore. Thus, when evaluating the strength of the argument, they are more likely to be factored in. In addition to being more prominent, complements that are composed of more individuated entities contribute to a stronger argument. This is because when *distinct* sources support the same conclusion, it is perceived as more firmly established than when the conclusion is supported by a homogenous source, even if it is robust because it is a plurality.

4.4.1.3.1. Nouns – association with partitives. We checked whether the entities denoted by the relevant plural nouns are eligible to function as discourse referents. Looking at the list of nouns, we hypothesized that one of *several*'s features is that its complement tends to introduce more individuated entities. In other words, the entities are differentiated from each other in a meaningful way. One way this might manifest itself is in their ability to serve as distinct discourse referents. We

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Table 9. Top 15 distinct collexemic nouns for each quantifier.

a few				*several*			
Collexeme	Co-occurrence with *a few*	Co-occurrence with *several*	G^2	Collexeme	Co-occurrence with *a few*	Co-occurrence with *several*	G^2
Minutes	12,468	1,668	9,111.564	Factors	151	1,833	−1,781.54
Things	6,510	1,409	3,370.821	Studies	468	2,395	−1,534.5
Words	3,167	155	3,221.313	Reasons	424	2,152	−1,369.72
Moments	3,713	424	2,859.872	States	520	2,134	−1,148.85
Seconds	4,354	696	2,798.46	Occasions	265	1,493	−1,017.27
Days	10,682	4,355	2,532.13	Ways	439	1,812	−979.33
Hours	6,589	2,763	1,455.6	Groups	202	1,237	−886.52
Questions	2,880	745	1,244.85	Countries	270	1,367	−866.32
Bucks	1,000	31	1,103.12	Decades	582	1,947	−857.44
Exceptions	841	44	837.28	Members	501	1,663	−725.35
Drops	696	37	689	Sources	66	704	−652.5
Drinks	707	49	652.12	Types	138	840	−599.1
Steps	1,857	599	615.52	Books	467	1,417	−556.19
Weeks	5,510	3,108	571.95	Organizations	72	603	−506.84
Tips	593	54	498.16	Companies	380	1,206	−499.08

Table 10. Top 15 distinct collexemic adjectives for each quantifier.

A few				*Several*			
Collexeme	Co-occurrence with *a few*	Co-occurrence with *several*	G^2	Collexeme	Co-occurrence with *a few*	Co-occurrence with *several*	G^2
Extra	841	36	1097.16	Different	544	2169	−806.81
Simple	595	23	785.07	Other	2173	4064	−328.32
Short	721	105	653.24	Important	150	658	−259.90
Good	874	202	605.83	Major	128	563	−222.40
Bad	310	39	296.61	Possible	58	349	−180.70
Minor	263	43	222.10	European	18	199	−144.83
Quick	204	28	187.40	Recent	85	370	−143.79
Select	111	1	166.20	Previous	11	135	−102.34
Basic	252	63	161.55	Independent	6	95	−78.60
Brief	155	17	155.98	Prominent	26	152	−76.61
Little	186	34	147.30	Smaller	49	196	−69.02
Scattered	101	3	136.92	Distinct	18	121	−67.37
Last	70	2	95.30	National	20	126	−67.08
Precious	68	2	92.23	Alternative	4	73	−62.93
Stray	76	5	89.19	Federal	8	87	−62.72

operationalized this propensity by examining the noun's attraction to the partitive construction (attracted/rejected/neutral). The partitive construction is composed of a quantifier/numeral, *of*, and a potentially modified noun. Some COCA examples of sentences with *several* and *a few* in the partitive construction are presented in (10):

10. a. In **several of Fyodor Dostoyevski's books** we meet men who have gone so far in the analytical direction, that they lose touch with Nature, God or the Harmonious Life […]. In *Crime and Punishment* Raskilnikov […] is reconciled with his "feminine side" with the help of the love of Sonia. In *Notes from the Underground*, the anima nature of this counterpoint is even clearer.
    b. You chose **a few of my favorite scenes** (particularly Hurley and Charlie getting the bus started, which upon rewatching the show really feels to me like the last nice moment before the fit hits the shan; and I also love that musical cue).
    (COCA)

The partitive construction carves out a new discourse referent out of an existing one. In (10a), for example, a subset of Dostoyevski's books is singled out and becomes an entity on its own. The writer then continues to name these books and elaborate on how they support their argument. Thus, the construction is a reasonable strategy to introduce new entities into the discourse. If nouns distinct for *several* are typically perceived as more individuated, we predicted that they would more likely be attracted to the partitive construction than the ones distinct for *a few*. Nouns distinct for *a few*, however, would more likely be rejected from the partitive construction than the ones distinct for *several*.

For example, the noun *moments*, which is strongly distinct for *a few*, may be prominent enough as a whole entity to receive the status of a discourse referent. However, it is (typically) less meaningful for us to distinguish the individual moments composing this whole, as they are too small to be told apart insightfully. Of course, we could construe a plural entity composed of moments such that every moment will carry a crucial contextual weight and thus be individualized. However, this is not the typical way we perceive such entities.

To calculate the association with the partitives, we first extracted all partitive constructions with quantifiers or numerals in COCA. We then applied a collostructional analysis (Stefanowitsch & Gries, 2003) and calculated a G^2 score for each noun. Nouns that received positive, significant scores were tagged as "attracted," significant negative scores as "rejected," and the rest as "neutral."

Fig. 6 presents the distribution of the association level with the partitive construction for the nouns distinctive of each quantifier. We see that for *several*, the distinctive collexemic nouns are rejected from and attracted to the partitive construction in equal proportions (about 40% each). In contrast, the nouns distinctive for *a few* are overwhelmingly rejected by the partitives (70.4%), while only a small minority (18.4%) is attracted to them.

A logistic regression analysis was conducted to examine the relationship between the quantifier (the response variable) and its association with partitives (the predictor variable). The predictor variable was dummy-coded, with the neutral level as the reference level. The results of the analysis revealed that there was a significant effect of

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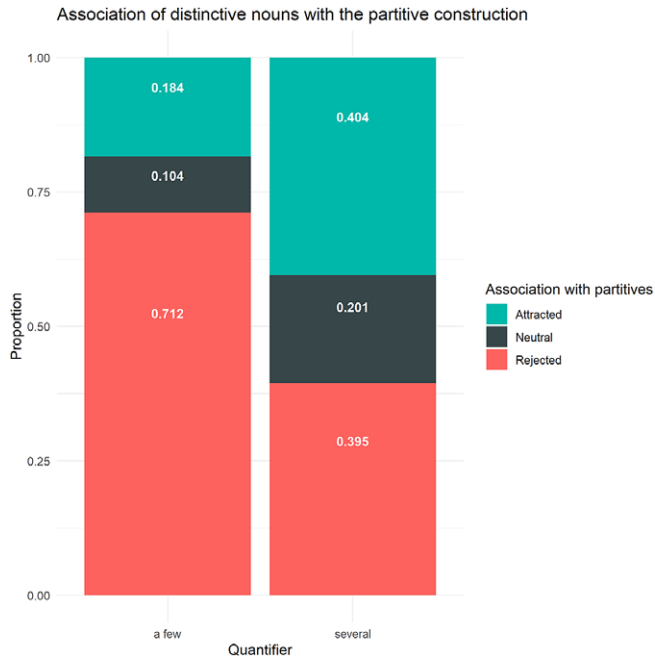

Figure 6. Association of distinctive collexemic nouns with the partitive construction.

Table 11. Logistic regression model. Formula: Quantifier ~ association

	Estimate	SE	*z* value	*p*
Intercept	1.28	0.18	7.17	<0.001
Association (Attracted)	0.12	0.22	0.57	0.57
Association (Rejected)	−1.25	0.2	−6.31	<0.001

association with the partitives on quantifier when the level of association was "rejected" (estimate = −1.2, SE = .2, $p < .001$). However, no significant effect was found when the level of association was "attracted" (estimate = .13, SE = .22, n.s.). The coefficients are presented in Table 11. A post-hoc analysis of simultaneous pairwise comparisons using Bonferroni adjustment indicated that only "Attracted" and "Rejected" ($Z = 8.74$, $p < .0001$) were significantly different.

These findings suggest that the critical level of association is rejection. Nouns rejected by the partitive construction are more likely to be distinctive for *a few*. This indicates that the nouns associated with *a few* are indeed less prominent than those associated with *several*. We propose that this results from their lower individuality, which explains why they are worse candidates for strong arguments.

4.4.1.3.2. Adjectives. Adjectives were tagged for prominence (prominent/insignificant/neutral) based on two criteria. First, adjectives that convey significance (e.g., *significant*, *important*) were classified as associated with prominence. Some of these are adjectives from the domain of FOCUS, such as *notable* and *prominent*. Focused

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entities indicate discourse prominence; the more important something is, the more attention we pay to it (Frännhag, 2010, p. 112).

The second criterion is individuation. These adjectives include *different*, *independent*, and *distinct*, but also *similar*, which indicates the likeness (on some dimension) of entities that are actually distinct from one another. The relation between individuation and prominence was discussed in the previous subsection.

Insignificance is likewise effected via different routes. First, there are adjectives that profile a low region on a scale of importance, such as *minor* and *secondary*. Second, there are adjectives that indicate exceptions. Adjectives such as *token* or *exceptional* mark the nominal as an exception, which is not enough to undermine the conclusion supported by the typical case. Other adjectives convey a spatial configuration that underlies an inference of insignificance – *scattered*, *isolated*, and *stray* are some examples. Once again, the nominal is construed as insufficient to support a claim by itself (consider, for example, the type of conclusion established on the basis of *a few isolated incidents*).

Table 12 summarizes the types of adjectives for each quantifier. For *several*, about 20% of the adjectives were tagged as conveying prominence, almost 80% as "other," and only a single adjective was found to convey insignificance. Conversely, for *a few*, only a single adjective was found to convey prominence, while about 14% of the adjectives were adjectives of insignificance. Even impressionistically, it is evident that *several*'s adjectives are much more likely to convey prominence than those of *a few*.

We fitted a logistic regression model with quantifier as the response variable and adjective type (prominent/insignificant/other) as the predictor variable. The predictor variable was dummy-coded, with "other" as the reference level. The results of the analysis revealed a significant effect of adjective type on quantifier when the adjective conveys prominence or insignificance. When an adjective conveys

Table 12. Types of adjectives by quantifier with percentages in parentheses

	A few	*Several*
Prominence	1 (.7%)	29 (20.3%)
Insignificance	19 (14.2%)	1 (.7%)
Other	114 (85.1%)	113 (79%)
Total	134 (100%)	143 (100%)

Table 13. Logistic regression model. Formula: Quantifier ~ adjective type

	Estimate	SE	*z* value	*p*
Intercept	−0.008	0.13	−0.07	0.94
Adjective type (insignificance)	−2.93	1.03	−2.83	<0.001
Adjective type (prominence)	3.38	1.02	3.3	<0.001

Table 14. Pairwise comparisons of adjective types. p values are Bonferroni-adjusted

	Estimate	SE	df	*z* ratio	*p*
Insignificance – other	−0.008	1.03	inf	−2.83	0.014
Insignificance – prominence	−2.93	1.44	inf	−4.37	<0.001
Other – prominence	3.38	1.02	inf	−3.29	<0.001

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prominence, it is more likely to be distinctive for *several*. Conversely, when an adjective conveys insignificance, it is more likely to be distinctive for *a few*. The coefficients are presented in Table 13. A post-hoc analysis of simultaneous pairwise comparisons using Bonferroni adjustment indicated that all comparisons are significantly different (see Table 14). All in all, together with the results for the nouns, we see that nominals modified by *several* tend to have greater discourse prominence, rendering the entire nominal argumentatively stronger.

4.4.2. Adverbs

Table 15 presents the results of the adverbials examined, which show that out of all selected adverbs, only the second conjunct of the adversative use of *but* (the one construction that marks the relevant slot as a strong argument) is distinctive for *several*. The other adverbials, all marking weak argumentativity, are distinctive for *a few* (although *except* is only nearly significant). This finding is in line with the results thus far – *a few* is more highly associated with the markers of weak argumentativity, while *several* is more highly associated with a marker of strong argumentativity.

4.4.3. Genres

We next examined the distribution of *several* and *a few* in different genres in COCA (see Fig. 7) to see whether their distribution can be explained by reference to genre formality. If so, the DCA results might reflect *several*'s preference for more formal genres (academic writing and newspapers) and *a few*'s preference for less formal genres (blogs, fiction, and TV/movies). It is then possible that certain words, such as *factors*, turned out to be distinctive for *several* simply because these words are more prevalent in the same genres as *several*.

To determine whether genre alone could explain the data obtained from the DCA, we examined the co-occurrence of the distinctive collexemes with the two quantifiers in each of the eight genres in COCA. We calculated the expected and observed co-occurrence frequencies of the collexemes with each quantifier and then checked for each collexeme how many genres the relationship between the observed and expected frequencies aligned with the results of the DCA. A genre was considered aligned with the results of the DCA for a collexeme distinctive of *several*/*a few* if the observed frequency of co-occurrence with *several*/*a few* was higher than the expected frequency in that genre. Collexemes that did not co-occur with either quantifier in a genre were also considered non-aligning for this analysis. The results are presented in Tables 16 and 17, respectively.

Table 15. Argumentative constructions and adverbs and their association with the quantifiers.

Construction/adverb	Co-occurrence with *a few*	Co-occurrence with *several*	G^2
Just	7,919	38	878.37
Only	8,589	100	693.68
But (other)	509	0	59.35
Except	692	31	2.6
(adversative) *but*'s second conjunct	704	921	−4,720.26

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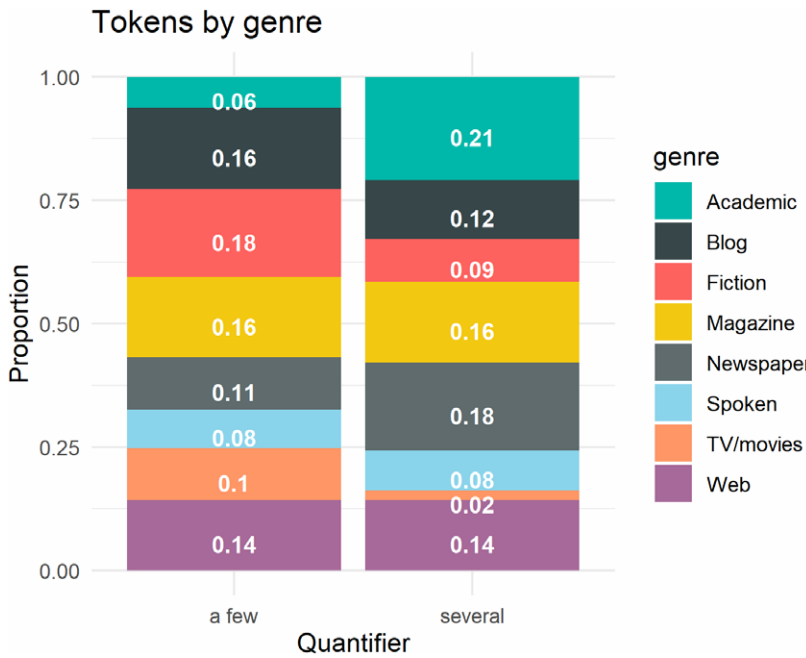

Figure 7. Distribution of tokens in different genres of COCA.

Table 16. Collexemic nouns per aligning genres.

	A few			*Several*		
No. of aligning genres	*n*	Proportion	Cumulative percentage	*n*	Proportion	Cumulative percentage
8	121	0.31	0.31	168	0.23	0.23
7	105	0.27	0.59	193	0.27	0.5
6	95	0.25	0.83	195	0.27	0.78
5	45	0.12	0.95	107	0.15	0.92
4	14	0.04	0.99	37	0.05	0.98
3	3	<0.01	0.99	15	0.02	1
2	2	<0.01	1	1	<0.01	1
1	0	0	1	1	<0.01	1
Total	385	1		717	1	

For *a few*, we see that the observed occurrence frequency of 83% of distinct collexemes is higher than the expected frequency in at least six genres (out of eight). For *several*, this number is 78%. That is, the vast majority of distinctive nouns are distributed in alignment with the results of the DCA in almost all genres. For the adjectives, the proportion of collexemes with at least six aligning genres is lower: 56% for *a few* and 64% for *several*.

To see if the results of the analysis for the adjectives still hold when the genre is factored in, we took only the adjectives that are distributed in alignment with the DCA results in at least six genres and used the same regressions model as in Subsection 4.4.1.3.2. This time, only insignificance was significantly different from

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Table 17. Collexemic adjectives per aligning genres.

No. of aligning genres	*A few*			*Several*		
	n	Proportion	Cumulative percentage	*n*	Proportion	Cumulative percentage
8	9	0.07	0.07	23	0.16	0.16
7	24	0.18	0.25	30	0.21	0.37
6	42	0.31	0.56	39	0.27	0.64
5	42	0.31	0.87	30	0.21	0.85
4	13	0.1	0.97	18	0.13	0.98
3	3	<0.01	0.99	3	0.02	1
2	1	0	1	0	0	1
1	0	0	1	0	0	1
Total	134	1		143	1	

the baseline "other" category (estimate = −2.6, SE = 1.05, $p < .05$). This means that *several*'s preference of adjectives conveying prominence is partially mediated by genre. However, while genre is a relevant factor, it cannot explain the totality of the results.

Moreover, we propose that these genre findings actually lend further support to our argumentative analysis, since "argumentative" lexical items should occur more frequently in more persuasive genres. Indeed, *several* is more prevalent in academic writing and newspapers, where persuasive discourse is often central. On the other hand, *a few* is more prevalent in blogs, fiction, television, and movies, where persuasion does not figure prominently.

4.5. Discussion of the corpus data

The results of the corpus study point to two major differences between *several* and *a few*. These relate to discourse prominence (*a few*'s complements tend to be less prominent and less individuated) and argumentative strength. In addition, *several* is more prevalent in persuasive genres than *a few*. Together, these findings support our argument that *several* is argumentatively stronger than *a few*. Finally, there are good reasons to believe that genre is responsible for some (though far from all) of the differences between the two quantifiers, in addition to the previously established difference in quantity.

5. Analysis

To summarize, combining previous research with our findings shows that:

a. While both *a few* and *several* are associated with quantities considered small, *several* is associated with a higher quantity than *a few*.
b. *A few* is argumentatively weaker than *several*.
c. *Several* construes its complement as internally composed of more individuated entities than *a few* (and thus as more prominent).
d. *Several* is prevalent in persuasive genres, while *a few* is prevalent in non-persuasive ones.

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We suggest that these tendencies define distinct prototypical discourse profiles (Ariel, 2008) for *a few* and *several.* A discourse profile specifies optional contextual factors that accompany the use of a construction. Note, however, that distinct discourse profiles must not be taken as grammatical rules. *Several* can denote a relatively small quantity of an individuated entity in a spoken conversation without contributing to an exceptionally strong argument. But a *prototypical* instance of *several* (or *a few*) manifests its *prototypical* discourse profile.

What about the core meaning of each quantifier, which is stable across different contexts? We assume that the two share some features, for example, denoting a quantity larger than one. However, building on Langacker's suggestion that *several* evokes a quantized scale, we could incorporate this concept into *several*'s core by postulating that the quantity needs to be count*able* in addition to being larger than one.[4] Although it is possible to interpret the corpus findings as supporting this analysis, it is difficult to say at this point whether this finding actually has implications on the countability of *several*'s complements.

Now, there is some symmetry between the components of the two discourse profiles, but when we examine the diachrony of the two quantifiers, we see that each quantifier took a different route to acquire its profile. Lack of space precludes a detailed account based on diachronic data. Instead, we rely on generally established principles of grammaticization and try to reconstruct the diachronic evolution of the expressions from the synchronic data.

Breban (2008) describes the path leading *several* from the original Latin *sēpar* "separate, distinct" into a grammaticized adjective first and then into a quantifier. According to Breban, in its adjectival form, *several* indicated that the plural entity is a set of distinct individual instances.[5] That is, the individuating components existed prior to argumentativity and quantity. The fact that individuation still prevails in the quantifier use of *several* follows naturally from Hopper's (1991) principle of persistence, according to which traces of original lexical meanings persist despite diachronic changes.

As for quantity and argumentation, we suggest that individuation led to strong argumentation (via prominence, see Section 4.3.3). Next, the use of *several* to form strong arguments most likely biased it toward quantities that are not so low. Intensity schemas, such as "the more X, the more Y," often underlie argumentativity (*topoi* according to Anscombre and Ducrot). Using *several* to forge a strong argument that supports Y may invite the inference that the quantity of X is relatively larger. Thus, the general path we suggest is:

Individuation > Strong argumentativity > Larger quantity

According to the *OED*, *a few* originates from "the same Indo-European base as […] ancient Greek *παῦρος* little, small, classical Latin *parvus* small, classical Latin *paucus*

[4]Note that we distinguish between 'count', which is applicable to the nouns associated with both quantifiers, and 'count*able*', which, we propose, characterizes *several.* We chose to characterize *several* as 'countable' for two reasons. Countable means that the number can be *easily* counted. For that, the relevant entities denoted by the head noun must be clearly distinct from one another (so they can each count separately), and the cardinality cannot be absolutely high.

[5]The adjectival 'separate' meaning survives in the phrase *the several states*, which refers to the separate states of the United states.

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Table 18. Result summary and analysis.

	Several	*A few*
Core	A countable quantity larger than 1	A small quantity larger than 1
Prototypical discourse profile	• Relatively high degree of individuation >> • Strong argumentativity >> • Larger quantity • Persuasive genres	• Small quantity >> • Weak argumentativity >> • Relatively low degree of individuation • Non-persuasive genres
Distributional patterns	Adjectives: • Adjectives of significance and individuation Nouns: • Stronger association with the partitive construction Adverbs and constructions: • Stronger association with *but*'s second conjunct	Adjectives: • Adjectives of insignificance and sparsity Nouns: • Weaker association with the partitive construction Adverbs and constructions: • Stronger association with focus particles and exceptive constructions

few." This explains the salience of the small quantity component of *a few*. A small number is more compatible with weaker argumentativity, which is in turn compatible with lower individuation and prominence.

This analysis also accounts for the difference demonstrated by (7a) and (7b). *Several* might sound odd when there is a large, backgrounded complement set, because there is a connection between individuation and set size. Typically, as the size of a set increases, the individuation of its members decreases.

Table 18 summarizes our analysis. Two points are worth mentioning. First, although we suggested a grammaticization path where one feature led to another, the three components of each discourse profile coexist synchronically as a bundle. Even though for *several* individuation came first, we found no evidence of its primacy over the two other components (strong argumentativity and larger quantity). Second, we treat the distributional patterns presented in the bottom part of the table as lower-level generalizations, because they naturally follow from the two distinct discourse profiles.

6. Concluding remarks

Our findings paint a picture in which quantifiers typically thought of as logical or formal entities are, in fact, associated with rich conceptual structures, much like other linguistic units so analyzed by cognitive linguists. Such analyses highlight the importance of detailed representations of cognitive models of the world for language meaning and use. For the argumentative function to be fulfilled, interlocutors need to have an underlying implicit knowledge of how we decide what type of evidence we may find more convincing or less convincing. This knowledge goes far beyond associating a quantifier with a set of specific cardinality. An example of a model that can account for such knowledge is Fillmore's (1976) semantic frames, according to

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which semantic meaning is comprised of detailed models of situations in which components have different roles.

The results of this study demonstrate how cognitive concepts relate to discourse and vice versa. For example, in the case of *several*, individuation, which relates to how we perceive the internal composition of a plural entity, motivates discourse prominence, which in turn influences the quantity associated with the quantifier. We hope this research will inspire further investigations into the relationship between cognition and discourse.

Data availability statement. The data and scripts used for the analyses are available at https://osf.io/kxaht/?view_only=00503082a44b4207bb505bd04f658bc2.

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