Appendix E: Mean ratings and standard deviations by subject-noun and structure for the adjectival items

Subject-noun	Basic		Within		Bet1s		Bet2s		Every		Most		Some	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
tree	5.68	1.91	5.88	1.77	4.76	2.18	3.76	1.92	6.20	1.13	4.84	1.95	4.08	2.00
vegetable	5.96	1.61	4.76	1.99	4.68	1.89	2.12	1.21	4.44	2.00	4.08	1.65	4.52	1.88
flower	6.88	0.59	6.36	1.23	4.44	2.10	2.64	1.44	5.56	1.79	5.52	1.63	4.64	1.79
bush	4.44	2.12	4.56	2.16	3.96	1.95	2.24	1.30	4.12	2.25	3.00	1.94	2.96	1.64
fruit	5.96	1.66	6.64	0.84	4.92	1.79	2.40	1.36	5.76	1.61	4.68	1.91	4.52	1.92
farm animal	5.00	2.19	5.08	1.96	3.80	1.94	2.88	1.58	3.48	2.21	3.84	2.01	3.80	1.81
insect	4.36	2.35	4.04	2.36	2.80	1.65	2.16	1.32	4.24	2.10	3.56	1.86	3.36	1.57
bird	6.96	0.20	6.44	0.90	4.84	1.83	2.68	1.57	5.92	1.23	5.60	1.65	4.36	1.81
reptile	6.16	1.22	5.92	1.60	5.12	1.53	2.32	1.26	5.32	1.78	4.72	1.56	4.56	1.72
predator	6.40	1.30	6.00	1.55	4.16	1.97	3.08	1.87	5.76	1.66	4.40	2.37	4.92	1.70
place	7.00	0.00	6.52	0.70	5.44	1.72	3.16	1.62	6.52	1.14	5.92	1.65	5.32	1.62
clothing	6.52	1.02	5.96	1.66	4.48	1.72	2.20	1.33	4.80	2.17	4.44	2.14	4.28	2.11
car	6.96	0.20	6.68	0.61	4.96	1.66	2.92	1.57	5.60	1.60	5.16	1.76	5.08	1.62
booklet	6.32	1.26	6.20	1.26	4.56	1.94	2.32	1.38	5.64	1.96	5.04	1.61	5.20	1.67
container	7.00	0.00	6.68	0.84	4.88	1.77	3.56	1.86	5.40	1.88	5.00	1.79	4.96	1.80
journalist	6.76	0.59	6.56	1.06	5.28	1.69	2.44	1.77	6.40	1.10	5.28	1.48	4.84	1.59
artist	7.00	0.00	6.68	0.61	4.96	1.84	3.20	1.60	6.28	1.28	6.32	0.93	5.60	1.41
football player	6.88	0.43	6.64	0.62	4.88	1.77	3.46	1.85	6.36	1.02	5.76	1.45	4.80	1.62
person	6.84	0.37	5.88	1.39	5.12	1.75	3.60	2.10	6.24	0.95	5.84	1.43	4.92	1.83
colleague	5.68	1.49	6.08	1.41	5.56	1.47	2.80	1.60	5.04	1.68	5.08	1.57	4.88	1.82

Appendix F: Mean ratings and standard deviations by subject-noun and structure for the nominal items

	Basic		Small		Within		Bet1s		Bet2s	
Subject-noun	M	SD	M	SD	M	SD	M	SD	M	SD
Tree	6.48	1.30	6.76	0.43	4.12	2.10	4.08	2.15	2.68	1.71
Vegetable	6.84	0.46	6.56	0.80	2.52	1.81	3.00	1.92	1.64	0.89
Flower	6.96	0.20	6.76	0.51	3.52	2.17	3.92	2.28	2.40	1.41
Bush	5.20	2.43	4.52	2.44	2.96	2.18	3.48	1.96	2.52	1.68
Fruit	6.44	0.94	6.72	0.60	3.28	2.01	2.72	1.91	2.40	1.77
farm animal	6.60	0.98	5.88	1.73	2.52	1.90	2.68	2.01	2.08	1.29
insect	6.84	0.61	6.44	1.33	3.60	1.96	3.40	2.06	2.60	1.62
Bird	6.92	0.39	6.32	1.29	3.16	1.97	3.64	2.31	2.68	1.46
reptile	6.56	1.13	6.76	0.59	3.88	2.23	4.76	1.94	2.52	1.50
predator	6.28	1.15	6.28	1.11	3.48	2.08	3.08	1.92	2.60	1.65
Place	7.00	0.00	6.36	1.13	3.60	1.90	4.64	2.30	2.84	1.71
clothing	6.44	0.80	6.00	1.41	4.52	2.02	5.56	1.90	3.36	1.83
Car	6.56	0.98	5.76	1.75	3.48	1.88	4.48	2.08	2.48	1.47
booklet	6.56	1.24	5.56	1.81	4.58	1.87	5.64	1.69	3.84	1.71
container	6.40	1.30	6.28	1.11	5.08	2.00	4.72	2.13	2.80	1.62
journalist	5.76	1.45	2.68	1.83	4.72	2.22	5.68	1.69	3.00	1.47
Artist	6.40	1.20	3.04	2.05	5.52	1.58	5.76	1.58	3.24	1.92
football player	6.76	0.59	3.40	2.19	5.00	1.81	5.48	1.63	3.28	2.01
person	6.88	0.43	2.32	1.83	4.64	2.10	5.52	1.70	2.72	2.27
colleague	5.84	1.29	4.04	2.05	4.68	2.09	4.76	1.84	2.48	1.86

	Every		Most		Some	
Subject-noun	M	SD	M	SD	M	SD
Tree	4.76	1.77	3.88	1.95	3.60	1.81
vegetable	3.80	2.23	2.96	1.87	2.36	1.26
flower	5.20	1.77	4.32	2.03	2.80	1.85
Bush	4.24	2.34	2.80	1.67	2.84	1.62
Fruit	4.68	2.22	3.48	1.86	3.12	1.75
farm animal	4.28	2.24	2.28	1.78	2.04	1.15
insect	4.92	1.96	4.00	1.90	3.04	1.82
Bird	4.56	1.81	2.96	1.84	2.52	1.75
reptile	4.16	2.07	3.28	1.91	2.64	1.65
predator	4.48	1.72	2.92	1.67	3.16	1.67
Place	4.88	1.86	4.28	1.56	4.16	1.99
clothing	4.36	1.96	4.52	1.90	3.72	1.93
Car	4.48	1.92	3.40	1.98	4.20	1.52
booklet	5.40	1.79	4.32	1.83	4.64	1.87
container	4.80	1.94	4.32	1.87	4.16	2.09
journalist	5.16	1.87	4.60	2.21	4.08	2.08
Artist	5.80	1.39	4.88	1.66	4.88	1.58
football player	6.60	1.23	6.08	1.02	4.72	1.78
person	6.04	1.51	4.60	1.83	5.32	2.03
colleague	4.84	1.87	3.92	1.96	3.68	1.95

Appendix I: Comparisons between quantifier structures differing by quantification force

The study included quantificational forms with *some respects*, *most respects* and *every respect*. Since the study focused on positive adjectives, which previous research suggests to generally be universal on their dimensions (e.g., *This tree/place is safe* is paraphrased as in (1a)), quantification structures were predicted to rank higher with *every* than with *some* or *most* (1a) > (1b,c)). Since universal quantification may often be too strong, the alternative hypothesis that constructions with *most* would rank higher has also been a viable option, rendering the question of preferred quantifier-type non-trivial ((1b) > (1a,c)).

(1) **Quantifications over dimensions:**
   a. Adjectival *every*: This tree/place is safe in every respect.
   b. Adjectival *most*: This tree/place is safe in most respects.
   c. Adjectival *some*: This tree/place is safe in some respect.

To test this point, we fitted a model with quantification type (every vs. most vs. some) and Predicate type (noun vs. adjective) as fixed factors to a data-set consisting of only the quantificational structures. We initially ran a maximal model. Due to convergence failure, slopes for interactions (but not for factors) were removed, for both subjects and items.

As Table 6 indicates and Figure 6 illustrates, this analysis yielded a main effect of quantification type ($p < .001$). Planned pairwise comparisons with an application of a Bonferroni correction (X3) for multiple comparisons revealed that *Every* quantifications (M = 5.16 , SD = 1.96) were rated higher than *most* quantifications (M = 4.4, S = 2.04, $t(87.9) = 4.54$, $p < .001$) and *some* quantifications (M = 2.08,S = 1.9, $t(84.5) = 6.24$, $p < .001$). No significant difference was observed between *some* and *most* quantifications ($t(78.6) = 1.47$, $p = .43$).

This analysis also yielded a main effect of Predicate type ($p < .001$), where nominal items (M = 4.11, SD = 1.98) were rated lower than adjectival items (M = 4.98, SD = 1.92). The two factors did not interact significantly ($p = .26$); i.e., quantification structures with *every* were ranked higher than with *some* or *most* in both the adjectives and the nouns.

	F	***p***	***β***	***SE***	***t***	***P***
Quantifier	$F(2,85.76) = 20.7$	**< .001**	$\beta_{most} = -.6$	.3	$t(42.3) = -2.1$	= .03
			$\beta_{some} = -.9$	0.24	$t(39.6) = -3.5$	< .001
Predicate	$F(1,138.54) = 33.3$	**< .001**	$\beta_{noun} = -.6$	.24	$t(40.3) = -2.3$	=.023
Quant×Pred	$F(2,73.5) = 1.37$	**= .26**				

Table 6: Quantifier-type effects in the quantification data.

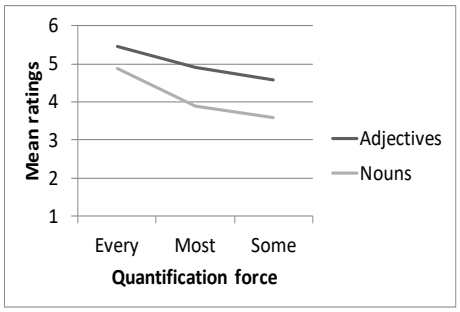

Figure 6: Mean ratings for Quantification types by Predicate type

In sum, as the adjectives in this study were positive, **quantifier-type effects** were also predicted and confirmed. Quantification structures ranked higher with *every* than with *some* or *most* ((1a) > (1b,c)). This finding aligns with previous experimentation and corpus patterns obtained using exception phrases (Sassoon 2012, 2013b; Shamir 2013; see section 1). This result can be accounted for formally by identifying the membership norm of these adjectives with the scale maximum, following the literature on scale-structure (see Kennedy and McNally 2005 and Kennedy 2007; Author1 in progress).

However, the same quantifier-type effects occurred also within the nouns, possibly because no negative nouns were included (e.g., *idiot* or *enemy*), an option that merits future research. Furthermore, sentences with explicit quantifiers over dimensions of positive **one-dimensional** adjectives such as *tall* and *wide* were included among the 24 fillers. These adjectives as well preferred *every* to *most* and *some*, in line with their positivity. Their averaged ratings ranged between 4.36 and 3.12 (see appendix B), below those of the multidimensional adjectives. However, as in Shamir's (2013) study of Hebrew, they were not crushingly bad. Shamir (2013) hypothesized that an alternative interpretation rescues them, involving quantification over different plausible ways to set the standard (rather than on dimensions).

Appendix J: Comparisons between different comparison structures

All views seem to predict that nouns and adjectives would exhibit different syntactic profiles; e.g., with adjectives, ordinary within-predicate comparisons would be judged more natural than between-predicate comparisons (e.g., (2c) > (3c)). However, with nouns, the reversed pattern would be manifested (e.g., (2a,b) < (3a,b)). Introspection does not yield any clear predictions about the construction in (4), sometimes called *subdeletion comparison* (as it includes two fully explicit clauses with both a subject and a predicate in each). To test the predictions and gain some systematic evidence about subdeletion comparatives, we went back to the Overall model and inspected further pairwise comparisons.

(2) Within:
   a. Natural nominal: This tree is more a pine than that one;
   b. Social nominal: This place is more a church than that one.
   c. Natural/social adjectival: This tree/place is more safe than that one.

(3) Bet1s:
   a. Natural nominal: This tree is more a pine than an oak;
   b. Social nominal: This place is more a church than an art gallery.
   c. Natural/social adjectival: This tree/place is more safe than dangerous.

(4) Bet2s:
   a. Natural nominal: This tree is more a pine than that one is an oak;
   b. Social nominal: This place is more a church than that one is an art gallery.
   c. Natural/social adjectival: This tree/place is more safe than that one is dangerous.

After an application of a Bonferroni correction for multiple comparisons (x11) this analysis revealed that, indeed, with adjectives, within-predicate comparisons (M = 6 , SD = 1.61) were rated higher than bet1s comparisons (M = 4.7 ,S = 1.91 , $t(8334.7) = 13.15$, $p < .001$), which were rated higher than bet2s (subdeletion) structures (M = 2.8 ,S = 1.67, $t(8336.1) = 19.1$, $p < .001$), e.g., (2c) > (3c) > (4c), but with nouns, within-predicate comparisons (M = 3.94, S = 2.17) were actually rated significantly lower than bet1s structures (M = 4.35, S = 2.21, $t(8343.5) = 4.1$, $p < .001$), which, again, were rated significantly higher than bet2s structures (M = 2.8 ,S = 1.67, t (8337.6) = 16.58, $p < .001$), e.g., (2a,b) > (3a,b) < (4a,b). Thus, as Figure 8 illustrates, a difference in syntactic profile between adjectives and nouns was found. Within-predicate comparisons seem to be the unmarked option for adjectives, but not for nouns.

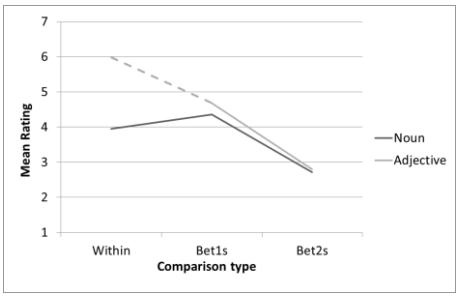

Figure 7: Mean ratings of comparison structures by Comparison type and Predicate type

In sum, the additive-social nouns were significantly better in **between**- than **within**-predicate comparisons, opposite to the adjectives, and subdeletion bet2s comparisons were the most unnatural in both nouns and adjectives.

Appendix K: The control small structures: Predictions and results

The *Small* structures that served as controls also exhibited an interaction, but due to a reversed entity-type effect (e.g., this time examples like (5a) were **more** natural than examples like (5b)), suggesting that the results are reliable and not due to a strategy to always rank social items higher. This result is revealed by a model with the fixed effects Structure (basic vs. small) and Entity type (natural vs. social), applied on a data-set consisting of the nominal basic and *small* conditions. Once again, we initially ran a maximal model. Due to convergence failure all slopes were removed for both subjects and items.

(5) Basic *small* structures:
   a. Natural nominal: This tree is a small pine.
   b. Social nominal: This place is a small church.

As Table 7 indicates and Figure 8 illustrates, it yielded a significant main effect of Structure (p = .001), where *small* structures (M = 5.43, SD = 2.11) were rated as less natural than basic structures (M = 6.48, SD = 1.16), and, more importantly, a significant effect of Entity type (p = .004), where, differently than the patterns observed thus far, social nouns (M = 4.54, SD = 2.32) were rated lower than natural nouns (M = 6.36, SD = 1.36). Further, the analysis revealed a significant interaction (p = .006).

	F	***p-value***	***β***	**SE**	***t***	***p-value***
Structure	$F(1,35.98) = 12.6$	**=.001**	$\beta_{small} = -.18$	0.4	$t(35.03) = -.42$	=.66
Entity	$F(1,36.02) = 9.05$	**=.004**	$\beta_{social} = -.025$	0.418	$t(36.03) = -.05$	= .9
Str×Entity	$F(1,36.04) = 8.54$	**=.006**	$B_{small:social} = -1.7$	0.59	$t(36.04) = -2.9$	= .006

Table 7: Results of a mixed models analysis for the basic and *small* constructions

Planned pairwise comparisons with an application of a Bonferroni correction for multiple comparisons (x2) revealed the source of this interaction. While there was no significant difference between social (M = 6.46, SD = 1.09) and natural basic structures (M = 6.5, SD = 1.23, $t(36) = .06$, p = .87, uncorrected), natural *small* structures (M = 63.1, SD = 1.38) were rated significantly **higher** than social *small* structures (M = 4.54, SD = 2.32, $t(36) = 4.19$, p < .001).

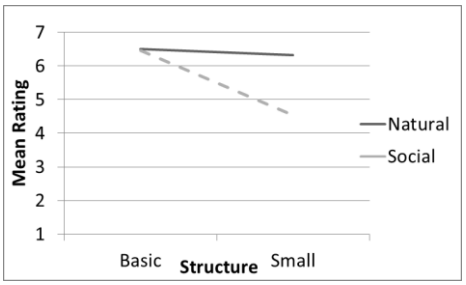

Figure 7: Mean ratings by Structure and Entity type for nominal basic and *small* items.