

Ordering adjectives with(out) restrictions

Elli Tourtouri & Antje Meyer (Max Planck Institute for Psycholinguistics)
elli.tourtouri@mpi.nl

Adjective ordering is a decade-long question in (psycho)linguistics (e.g. Danks & Glucksberg, 1971; Sproat & Shih, 1991; Trotzke & Wittenberg, 2019). While there is no agreement regarding the conceptual, cognitive or other bases of adjective ordering preferences, previous research generally supports the existence of a universal ordering hierarchy of closeness to the noun: adjectives that are less subjective (or more absolute/definite/etc.) are placed closer to the modified noun (cf. i.a. Scontras et al., 2017; Scott, 2002). For example, in pre-nominal languages like English size is consistently ordered before colour (cf. ?the red big house vs. the big red house). This hierarchy has been shown to hold in typologically diverse languages (e.g., Scontras et al., 2020). Evidence from some languages, however, suggests that certain syntactic structures may neutralise the ordering preferences otherwise observed (e.g., conjunction in Spanish; Rosales Jr. & Scontras, 2019).

In this work, we examine adjective ordering in Greek, a pre-nominal language that features ‘determiner spreading’, a syntactic phenomenon whereby the definite determiner appears before each adjective and the head noun in definite noun phrases (Androutopoulou, 1995). The resulting polydefinite structures license all possible adjective-adjective-noun orders (cf. examples c-d and g-h in Table 1; see Alexiadou & Wilder, 1998; Lekakou & Szendrői, 2017; Panagiotidis & Marinis, 2011). It is, however, not undisputed that the ordering preferences generally observed in other languages are to be found in Greek, too (Leivada & Westergaard, 2019; Scontras et al. 2021). We, therefore, also aim to establish whether Greek follows the universal ordering pattern. To this end, we tested ordering preferences for adjectives from different semantic classes (colour and size), and for adjectives from the same semantic class (colour and pattern), as it has previously been shown in English that preferences for same-class adjectives are malleable (Fukumura, 2018).

In a 2x2x2 experimental design we fully crossed *Semantic class* (levels: colour-pattern (same), colour-size (different)), *Order* (levels: preferred, reverse), and *Definiteness* (levels: polydefinites, monadic definites), resulting in 8 conditions (see Table 1). We used 24 everyday object labels, 3 colour adjectives (blue, green, red), 3 pattern adjectives (chequered, dotted, striped) and 2 size adjectives (big, small) to create 24 adjective-adjective-noun definite noun phrases for the critical items. Another 24 phrases were constructed using a new set of labels as well as adjectives from two more semantic classes (age and material) and were used as fillers. In 6 of the fillers, the phrases were ungrammatical. Participants (N=48) first read a short story whose purpose was to provide a neutral context that would make both polydefinites and monadic definite phrases felicitous.¹ Their task was to rate the expressions for ‘goodness’ on a 5-point Likert scale, where 1 corresponded to ‘extremely bad’ and 5 to ‘extremely good’. Overall, participants completed 48 trials, distributed across 8 lists in a Latin-square design, and randomised per participant. The experiment was programmed and run on PC Ibex Farm, and participants (monolingual speakers of Greek) were recruited over Prolific. Based on Scontras et al. (2021), we predicted that Greek speakers’ ordering preferences in the monadic definite phrases would be similar to those found in other prenominal languages: i.e., the ‘preferred’ conditions should receive higher scores than the ‘reverse’ conditions. This effect was expected to be larger in colour-size than colour-pattern conditions. If polydefinites indeed cancel ordering preferences, we should observe no such difference in the ‘polydefinite’ conditions, both in colour-size and in colour-pattern conditions.

Participants who did not answer ‘1’ or ‘2’ in at least two of the ungrammatical fillers were excluded from further analyses. The rest (N=40) entered a cumulative link mixed model with Class, Order and Definiteness as predictors and the maximal converging random effects structure. Preliminary results (Table 2) present two interesting insights: (a) even though the reverse orders in colour-size phrases are rated worse than those in colour-pattern phrases, they are nevertheless acceptable in Greek (cf. scores in $f > 3$, Fig. 1), contrary to what is seen in other languages; and (b) polydefinites are in general rated worse than their monadic definite counterparts even in the reverse orders. In future work, we will test whether these findings hold with auditory stimuli (emulating the colloquial nature of polydefinites in Greek).

¹ Data collection is ongoing; we plan on collecting data from 96 participants.

Table 1. Example phrases per condition

Cond	Class	Order	Definiteness	Example
a	Colour-Pattern	preferred	mon. definite	to prasino rige potiri lit: the green striped glass
b	Colour-Pattern	reverse	mon. definite	to rige prasino potiri lit: the striped green glass
c	Colour-Pattern	preferred	polydefinite	to prasino to rige to potiri lit: the green the striped the glass
d	Colour-Pattern	reverse	polydefinite	to rige to prasino to potiri lit: the striped the green the glass
e	Colour-Size	preferred	mon. definite	to megalo prasino potiri lit: the big green glass
f	Colour-Size	reverse	mon. definite	to prasino megalo potiri lit: the green big glass
g	Colour-Size	preferred	polydefinite	to megalo to prasino to potiri lit: the big the green the glass
h	Colour-Size	reverse	polydefinite	to prasino to megalo to potiri lit: the green the big the glass

Table 2. Results

	β	SE	z	p
Class	2	.645	3.11	.002 **
Order	-.52	.374	-1.395	.163
Definiteness	-4.81	.641	-7.503	< .001 ***
Class:Order	-2.31	.818	-2.82	.005 **
Class:Definiteness	-1.51	.686	-2.197	.028 *
Order:Definiteness	.141	.444	.318	.751
Class:Order:Definiteness	1.812	.889	2.037	.042 *

Note: Class baseline: Colour-Pattern; Definiteness baseline: monadic definite; Order baseline: preferred

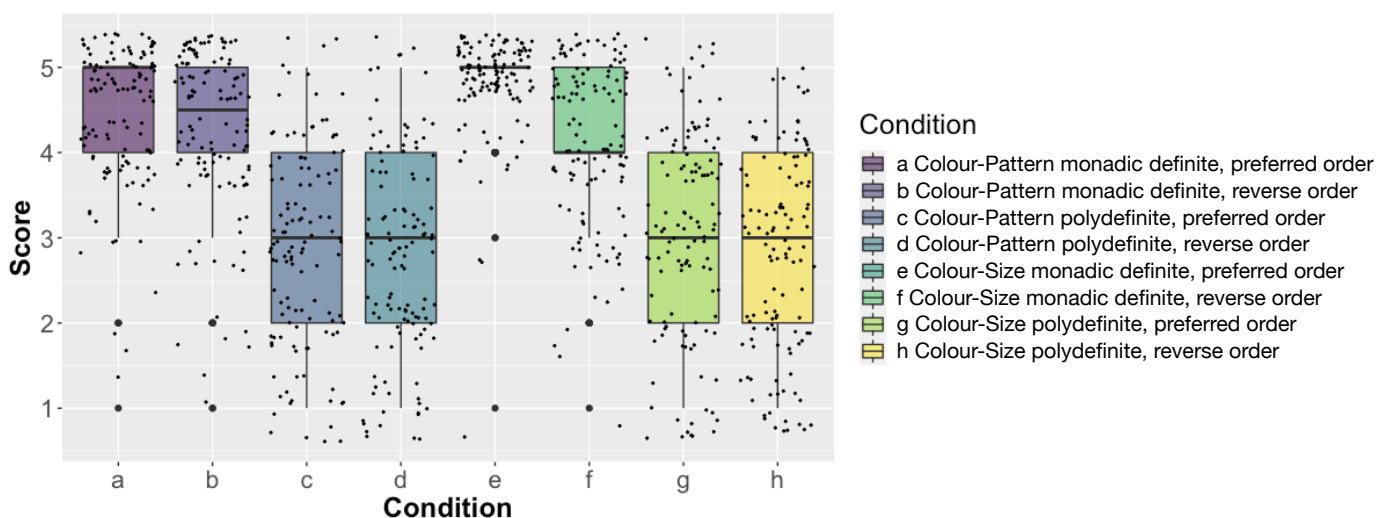


Figure 1. Goodness ratings per condition.