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Factors Affecting Difficulty of English Pre-Nominal Adjective Order for Saudi Learners

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ABSTRACT

The purpose of this paper is to illuminate foreign learners' receptive mastery of the distinctive pre-nominal adjective order of English and factors affecting their correctness, using Saudi learners as an example. Although English adjective order itself is well-understood, second language learners' acquisition trajectory is under-researched. In this study, 134 L1 Arabic learners responded to a multiple-choice test of adjective order knowledge in all possible two- and three-adjective prenominal sequences taken from the underlying accepted English sequence: quality - size - age - colour - nationality. Findings predominantly showed that there was some support for non-contrastive factors influencing sequence difficulty: the shorter sequences (i.e., of two adjectives) were easier than longer sequences, as were positions closer to the noun head in the underlying sequence (i.e., nationality) compared with those further away (e.g., quality). A factor not attested in previous studies was positional separation: sequences containing adjectives that were the furthest apart in the underlying sequence (i.e., quality – nationality) were often easier than sequences of adjacent adjectives (e.g., colour – nationality). Possible contrastive effects of the L1 Arabic adjective order were also investigated with respect to both MSA and Najdi (the local spoken variety of most participants). Little definite effect was found. These findings supplement and, to some extent, challenge those in other studies that claim greater L1 effects.

Keywords: Acquisition; Adjective Order; Arabic; EFL; English; Transfer

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1. Introduction

Adjectives in English constitute a major word class whose characteristics learners of the language need to master[1]. Like in other languages, English adjectives can take attributive and predictive sentence positions and have comparative and superlative forms[2]. However, compared with the morphological complexity of many languages (e.g., inflection for gender, number, case), the features of English adjectives are relatively simple (cf. Arabic: Ryding[3]). However, one detailed feature that requires attention is the order of multiple adjectives in pre-nominal attributive position, which in English is not 'free'[2]. For instance, English native speakers accept *a nice little dog* (quality adjective before size adjective), but query *a little nice dog.* Perhaps not surprisingly, learners of English may encounter difficulties learning this ordering, difficulties whose nature and explanation it is necessary for second and foreign language educators to understand to make foreign language teaching more effective[4].

As our literature review below will show, although there have been some studies of the learning of English adjective order by non-natives, they are few and often in dissertations rather than journal articles. They show that adjective order remains a problem at quite an advanced level but factors affecting this remain under-explored. In particular, L1 influence is often invoked as causing mistakes, but rarely convincingly proved, and possible non-contrastive factors, such as the specific types or number of adjectives in sequence, are relatively neglected[5, 6].

The present study therefore arises from a conviction that this topic is worthy of better treatment, with a study that systematically considers both L1-based factors and those within English, in an attempt to unravel which are really influential and in what ways.

RQ1. Which sequences of pre-nominal English adjectives do Arabic learners find easier or harder to learn the native-like order of?

RQ2. Do Arabic learners of English show any tendency to follow the pattern of L1 adjectives after the noun (in either MSA or vernacular spoken dialect) when ordering multiple English adjectives before a noun? Or are mistakes/areas of difficulty more explicable on other grounds?

Answering such questions will not only be informative for second language acquisition research but also for foreign language teachers.

In order to pursue these aims, we need to first review (a) what the adjective order in English actually is, and (b) what the adjective order in Arabic is (both MSA and vernacular), as well as (c) what relevant learner studies have found. As might be expected (a) has attracted the most attention.

1.1. Literature Review

This account is largely limited to the order of multiple attributive adjectives before the noun in English, which correspond to those after the noun in Arabic. I.e., we do not consider English post-nominal attributive adjectives or adjectives in predicative position. In those locations, English requires multiple adjectives to be linked by a coordinator such as *and*, and the order seems freer.

1.2. Adjective Order in English

1.2.1. Default or Unmarked English Order

In English, there are well-documented order restrictions. We say: *He has a new red car* not usually **He has a red new car* (i.e., the rule here is 'age before colour')[2] .

Table 1 gives a typical summary of the unmarked order from the literature[7–9]. It omits adjectival participles, which some include as if they also constitute a unitary semantic category: in reality they present many complications as they do not all belong in one semantic class and vary in their degree of adjective-like nature.

The order is often described left to right as running from extrinsic to intrinsic features of what the noun denotes, or from subjective to objective meaning, or from gradable/descriptive to non-gradable/classificatory attributes of whatever the noun denotes[7]. Note that, nearer to the noun head, the modifiers may be nouns in attributive use rather than simple adjectives. If adjectives from the same class are used together, they are usually linked with a comma or *and*: they are 'coordinate' rather than 'cumulative'. E.g., two quality adjectives may occur: *a boring and monotonous voice* or *a boring, monotonous voice*. If they are mutually exclusive in meaning, *and* must be used: e.g., two colour adjectives, *a black and white cat*[2].

Table 1. Unmarked adjective order in the English language.

Opinion/Perceived Quality	Size	Age	Temperature	Shape	Colour	Origin/Nationality	Material	Purpose
Nice, Expensive, Good	large small	old, new	warm, cold	round, square	red, blue	local, Greek	wooden, digital, brick (N)	culinary, writing (N)

1.2.2. Instances of Apparent Violations That Arise for Other Adjective-Related Reasons

A number of violations of the 'normal' adjective order in English are apparent rather than real. They involve semantic or syntactic factors that mean that they do not constitute violations of the order described above[2], for example, *cool* appears in multiple positions because it has two meanings, one as a quality and one as a temperature. Most notably there remain, however, apparent violations which are due to the occurrence of 'marked' or unusual discourse situations. They are often accompanied by distinctive stress/intonation features. E.g., *I want the green little book, not the red one.* In such marked examples, the key point seems to be that the topic of conversation, what is 'given' rather than the 'new' or 'focus' information, shifts from an idea/category expressed just by a base level noun, e.g., *book* or *car*. Rather, it is a more specific idea/category expressed by an adj + noun: *little book* or *red car*[10]. The present study does not include such cases.

1.3. Adjective Order in Arabic

1.3.1. Default or Unmarked Arabic Order

In Arabic, the first key point is that the default attributive adjective position (as opposed to order) differs from English. The normal position of attributive adjectives in Arabic is following the noun, rather than preceding it, as normal in English[3]. Many studies of learning 'adjective order' focus on that fact of adjective position, but since that is not our focus, we use the term 'adjective order' only to refer to the ordering within sequences of multiple attributive adjectives. The present study targets learners who are not complete beginners and already know that English adjectives usually come before the noun rather than after it.

With respect to sequences of multiple adjectives, El Shaban[11] claims, without citing any support, that there are no rules for adjective order in Arabic. Zawahreh[12], in a study of many kinds of features of adjectives other than just ordering, also says "there is no one-to-one correspondence between adjective ordering in English and Arabic. In English, this ordering is governed by some syntactic and semantic rules, whereas in Arabic, it is governed by speaker's intuition, emphasis shift and language usage" (p. 433). This however is not supported in detail, nor is the nature of Arabic intuitions discussed. Most recently, Alghazo and Jarrah[13], based on acceptability judgment tasks, declare that no adjective ordering preferences in Jordanian Arabic. Fehri[14], however (who we judge to be a widely cited and very reputable source), based on native speaker intuition, suggests that adjectives in Arabic (MSA) are ordered in the same way as English, except that they come after the noun head in mirror image order (MIO, i.e., reverse order) of that in languages like English, as suggested above. I.e., quality adjectives are furthest from the head after the head rather than before it; nationality adjectives are closely following the head noun rather than closely preceding it, etc.

l-kita:b-u the-book-nom *l-ʔaxḍar-u* the-green-nom *ṣ-ṣaġi:r-u* the-little-nom
'The little green book'
ša:y-un tea-nom *ṣi:ni:y-un* Chinese-nom *ʔaxḍar-u* green-nom *jayyid-un* excellent-nom
'An excellent green Chinese tea'

Indeed, some experts say the order of closeness of adjectives to the noun head is psychological/cognitively based and so universal[7]. Note to capture that sort of proximity, disregarding whether it is before the head or after, it is necessary to give up speaking of rules like 'size before colour' and instead word such rules as 'size further away than colour'. Rules worded like that then fit both English and Arabic[15].

This contrastive situation between Arabic and English

then presents a dilemma for the prediction of what transfer is likely among Arabic learners of English. Clearly, if one considers only the surface order of adjectives in Arabic then it does not agree with English, so negative transfer is predicted leading to learners saying *the green little book*. On the other hand, if we presume that learners learn not so much in terms of rules about order but in terms of rules about distance of adjectives from the noun ('proximity to head' rules, regardless of order), then once they know that adjectives precede the noun in English, they could be expected to use MIO as a rule to convert the Arabic order after the head into the English order before the head, and so produce correct orders without having to (re-)learn that size comes further away than colour, etc., hence, there could be positive transfer.

1.3.2. Marked Arabic Orders

Fehri[14] briefly notes that other apparent orders can arise in Arabic only when the structure is different, i.e., when an adjective is not attributive but predicative in a relative clause. This involves marked focus and may be accompanied by a comma intonation (note 13).

l-kita:b-u the-book-nom *ṣ-ṣaġi:r-u* the-little-nom *l-ʔaxḍar-u* the-green-nom
'The little book which is green'

This structure appears to involve the topic being revised from just 'book' to 'little book' on the lines described for marked order in English. Hence it suggests that revision of the topic to be more specific, including both a noun and an adjective, has a similar effect on adjective order in both languages. Indeed, it seems likely that such a process would be universal. I remain uncertain whether those who claim there are no order preferences in some forms of Arabic are including or excluding such marked cases (e.g., for Jordanian Arabic[13]).

1.3.3. Conclusion on Adjective Orders in Arabic

We have not found extensive coverage of the unmarked order in Arabic or of the various exceptions that may exist on parallel bases to those found in English. However, these matters are not pursued in the present paper as they are beyond its scope, which is the default unmarked meaning-based order.

There is another gap in the literature that is more pressing, however. The studies of adult Arabic speaking learners of English often do not take into account that those learners typically know at least two rather different Arabic varieties: the 'low' mostly spoken vernacular of their region (typically the L1 they first acquire as a child), and the 'high' mostly heard, read and written Arabic which is the same across the Arab world (MSA, which they learn as their second language/dialect, especially at school and which is more researched). Hence if there is talk of the effect of L1 on English in their learning, it needs to be ascertained if there are relevant differences between the local dialect and MSA, as each might have a distinctive potential transfer effect.

In the present study, the local dialect of the participants is predominantly Najdi, the vernacular variety of spoken Arabic of the central area of Saudi Arabia, including Al Qassim. No account of adjective order in this variety was available, so the researcher, a native speaker of that variety, used her intuition to check what the order would be in that variety, and indeed in her MSA, for a range of examples including those used in the present study (sequences of 2 and 3 adjectives). The main conclusions from this were as follows.

In almost all the examples considered, the MIO of the English order was accepted as normal in Arabic. However, there were a number of instances where two orders were felt to be acceptable, not just the MIO[9]. This was especially so in three adjective combinations rather than two-adjective ones. Where additionally another order was accepted, in almost all cases a combination from the categories quality, age, size or colour was involved: nationality adjectives were almost without exception accepted only adjacent to the noun. Some studies of other languages have also reported multiple unmarked adjective orders being acceptable, unlike English (e.g., Chinese[16]; and Hausa[4])

In almost all cases, Najdi and MSA were the same with respect to the above, although the actual adjective lexical items were often quite different in each. Such similarity has been also reported by Alotaibi and Alotaibi[17] between MSA and Kuwaiti Arabic. Hence, there is no basis for attempting to look for a separate transfer effect of MSA and Najdi. If any transfer effect is found (RQ2), it could be from either or

both of those. Finally, in both varieties it seemed that there were instances where it was more acceptable to link pairs of adjectives in a sequence with /wa/ 'and' rather than just concatenate them with no connector. This is disregarded in the present study, since the study was concerned with adjective order only.

Note that our account of Arabic adjective order now suggests that two kinds of negative transfer could arise from Arabic. First, learners of English may be influenced by the surface order of the MIO equivalent in Arabic and not apply any MIO rule to convert it to English order: they would then accept or produce the reverse of what is correct in English. Second, they might be influenced by the fact that Arabic seems to accept more than one unmarked order in some cases: they would then allow or produce multiple orders in English. In the literature we have not found these two possibilities clearly separated, or indeed tested separately. The present study attempts to achieve that.

1.4. Studies of Learner Adjective Order

1.4.1. Research Methods Used

Learners spontaneously produce multiple adjective sequences infrequently in speech or writing, as is attested by the data collected by Andayani[8]. Therefore, studies of adjective order do not usually rely on error or performance analysis of student output. Rather they rely on what are, effectively, multiple choice tests. Sequences containing adjectives are offered to be judged either correct or incorrect, or a correct order may need to be supplied, from what is always a finite set of logically possible orders (e.g., Abubakar et al.[4] in Nigeria; Alkhresheh and Alruwaili[18] in Saudi Arabia). This is essentially the approach in the present study.

Rosato[7] utilised an interesting alternative method where participants had to read aloud sentences that contained a range of adjective orders. The aim was to use their pauses and intonation to detect orders that they found abnormal. However, she did this with native speakers and it could be a difficult technique to employ reliably with non-natives, where hesitations might arise for numerous other reasons. Others have gathered data at a high level of explicit awareness, rather than via language performance. For example, Ginting et al.[5] conducted interviews with Indonesian high school students where they were asked about any adjective order rules they knew. The present study, however, is more interested in actual performance, which is widely seen as a distinct form of ability from metalinguistic knowledge[19].

1.4.2. General Difficulty of L2 Adjective Order

Previous research has reported that non-native English speakers have difficulty with adjective order, when more than one adjective precedes the same noun. Often however they conflate adjective order, in the sense of this paper, with adjective position, before or after the noun (e.g., Abubakar et al.,[14]).

In general, moderate rather than extreme degrees of difficulty are reported, often differing, as might be expected, by student level. Abubakar et al. for example report an error rate of 66 out of 200 responses (33%) at secondary school level in Nigeria. Alkhresheh and Alruwaili[18] report 66% of university level Saudi student participants having 'moderate difficulty'. Some studies have included a measure of participant general proficiency in the target language. These show unsurprisingly that higher proficiency students are more nativelike in adjective order tests (e.g., Alotaibi & Alotaibi,[17]).

Alkhresheh and Alruwaili[18] point out that accuracy also relates to the number of adjectives in sequences tested. Higher error rates were found mainly for sequences of adjectives longer than two. This could be related to the fact that with a sequence of two adjectives the probability of blindly choosing the correct order is 50%, while with three it is only 17%. Furthermore, any learner will encounter in English text far more two-adjective sequences than longer ones[2, 20], so may be expected to learn the former better. In any event, the number of adjectives in the sequence emerges as a factor potentially affecting difficulty that the present study pursues.

At the level of metalinguistic awareness, some studies again support the difficulty of adjective ordering for learners. Ginting et al.[5] report that Indonesian high school students claimed to be unaware of adjective order restriction rules. However, that does not mean that they were unable to implicitly employ any in language use[19]. By contrast, Andayani[8] also interviewed Indonesian participants, asking them pointed questions regarding their familiarity with adjective order. They were at tertiary level, however, and some of them claimed to know about eight categories of adjective and their order. However, again that study did not test their performance knowledge of adjective order.

More broadly, a case is made by Tribushinina[21] for adjectives in general being harder to acquire than verbs and nouns. Although her focus was not specifically on acquiring adjective order, a review across many languages suggested that adjective behaviour is difficult to acquire because adjectives are relatively infrequent in input, and often have abstract meanings. Indeed, sequences of adjectives are uncommon: only 2% of premodified Ns have sequences of 3 or 4 (and that includes some premodifiers that are nouns rather than adjectives[2]).

1.4.3. Transfer from L1 as a Factor Affecting Error: Arabic L1

The main reason for learner adjective order difficulties in English is that the L1 order is different. This in turn may depend on lack of relevant knowledge of English. As Prins[22] says: "students fall back on the rules of their first language […] when they do not know the rules of the second language". However, few studies really demonstrate clearly what the order effect is for Arabic as L1 in relation to English.

Amer[23] for example conducted a comparison of adjectives in English and MSA, finds differences, and broadly assumes that there will be difficulties that depend on that. However, his report of data collection and results from learners does not provide any transparent evidence of effects of adjective order from Arabic (only of the effects of the different adjective position). Zawahreh[12] also claims that it is contrasts between English and Arabic adjective order (which he regards as not following any rule) that lead to "inadequate and inaccurate renderings", but does not demonstrate this from any learner data.

El Shaban[11] reports employing a test to investigate adjective errors, including order errors, among Arabic learners of English. However, the nature of the test and data analysis is not described and the results not given in detail. She however concluded summarily that although some order errors were caused by the first language, developmental errors (those not driven by the first language) were far more common.

To date, Alkhresheh and Alruwaili[18] seems to be the best conducted and reported study of Arabic speaking learners of English adjective order. It used a test which is fully described, though the results are not fully analysed quantitatively in terms of possible transfer from L1 Arabic, only in terms of correctness. Nevertheless, a valuable example is provided that shows an indeterminate effect of L1. The study found that the sequences *long yellow dresses* and *overpriced Arabic food* were rightly accepted as correct at extremely different rates (77% versus 30%). Yet, both follow the reverse order in MSA (the MIO), as suggested by Fehri[14]: literally 'dress yellow long' and 'food Arabic overpriced'. This does not support L1 transfer which would either suggest that both would be highly rejected, since the adjectives are not in the surface order of Arabic, or would posit that both would be highly accepted, if it can be assumed that learners applied an MIO rule to their Arabic or initially learn proximity to head rules rather than order rules. In either event, transfer cannot predict a different outcome for each sequence.

Those two examples, however, do differ in that different semantic categories of adjective are involved. The former exemplifies 'colour closer to the head than size' while the second example shows 'nationality closer than perceived quality'. This leads to the question whether learners perhaps learn some sequences before others based on the specific semantic categories involved. Indeed, it is arguable that basic size and colour adjectives would be learned earlier than quality and nationality adjectives. This is precisely the question that the present study intends to follow up.

1.4.4. Transfer from L1 as a Factor Affecting Error: Other Languages as L1

Some results from non-Arabic studies are also worth mentioning because they present findings of interest to explore in the Arabic L1 context. Some such studies here echo El Shaban[11] above and report no clear L1 transfer effect on learning L2 English adjective order (e.g., Jung,[24] for Korean L1). McMahon[16] also found little similarity between the English adjective order errors of Hindi and Nepali speakers despite those L1s being closely related. Abubakar et al.[4], however, report participants' first language (Hausa) to have influenced many inaccurate corrections of English adjective order in their test. Recently, Shamsabadi and Nejdansari[25] also reported adjective order errors of Iranian of English and assigned them to L1 transfer.

Amusan[6] systematically tested the English order preferred by learners with four rather different languages as L1: Igbo, Yoruba, Nepali and Hindi. Regardless of the adjective position in the L1, they were all presented with English examples containing two pre-nominal adjectives differing only in order, to choose between: e.g., pairs like *a beautiful new*

computer and *a new beautiful computer*. It was found that, regardless of L1, they all substantially agreed on the same order as English native speakers for adjectives nearer to the head, i.e., nationality → material → noun head. By contrast, they varied more on the ordering of more distant categories (quality, size, age, shape, colour), both from each other and from English NS. However, sample sizes were small (max 9 informants per language) and within L1s there was in many cases a near 50-50 split rather than a clear majority for one order. The present study however deems it useful to pursue the idea that distance from the head affects order correctness, albeit with a much larger sample of learners.

1.4.5. Conclusion on the Studies

None of these studies tested enough combinations to ascertain which adjective categories were the most challenging to place in the right order pre-nominally in English. Nor did they typically quantify L1 influence or indeed systematically clarify what we mean by L1 influence in the case of Arabic, nor consider the relevance of different varieties of Arabic. As we have seen, L1 influence could take at least two negative forms here: influence of the L1 surface order, which is usually the reverse of English; influence of the fact that Arabic seems to allow more than one acceptable normal order in some instances, which English does not. This motivated the research questions which were formulated above.

With respect to factors other than the L1, studies have occasionally considered the length of the sequence of prenominal adjectives as a factor (i.e., 2, 3 or 4), and closeness to the noun head, but not the semantic category of the adjectives considered (e.g., age, colour, material etc.). Again the present study addresses all those factors.

2. Materials and Methods

For brevity, the different correct English adjective category sequences are referred to by their initial letters (e.g., 'sc' for 'size followed by color', 'qan' for quality, age, nationality').

2.1. Design

The study was quantitative using scores from a multiple-choice test. The main variables of interest were accuracy of adjective order choice and choice of orders consistent with L1 transfer (either by choosing an Arabic or multiple orders). Scores were handled within repeated measures/within subjects' design, where participant performance was compared between different adjective sequences, defined by different combinations of adjective categories (e.g., 'ac', 'sc', 'qa' etc.). Also included were between group comparisons on background variables such as level and gender.

2.2. Participants and Context

The context of the study was a typical university in Saudi Arabia, where English ability is widely required for subjects other than English. University students constitute a prominent population of Saudi learners of English judged to be mostly in the range from post beginner to upper intermediate ability although they do not routinely take internationally calibrated English proficiency tests). Using snowball sampling in WhatsApp, 140 students agreed to participate anonymously. However, six were non-native speakers of Arabic, so they were excluded, since the population we wished to represent was Arabic speaking learners of English at a tertiary level. 70% were speakers of Najdi, the rest of other dialects (in Saudi Arabia or nearby Lebanon or Syria). 79% were female. 59% were studying English (including translation), the rest were majors taught through English medium, predominantly medical subjects. The level in university ranged from preparatory year through all eight undergraduate levels to recent graduate. The mean self-reported years of learning English was 6.85 (*SD* 5.0).

2.3. Procedure

Potential participants were contacted by WhatsApp message with information about the study and an invitation to participate by clicking the link to the study below the invitation message. Participants were assured of anonymity and that there was no penalty for not participating following University ethical guidelines. Those who consented signed an online consent form and completed an online questionnaire composed in Outlook Forms. It contained five background demographic questions (covering variables such as university level, gender, and Arabic dialect spoken at home), and 30 English adjective order test items.

2.4. The Adjective Test Instrument

The test was constructed in a similar way to that of Alkhresheh and Alruwaili[18]. Since they had successfully used their test with sample from a very similar population to that of the present study, this was taken to support the suitability of the test. To keep the number of items within reasonable limits, the order of five common categories from the standard adjective order table was chosen to be tested (not all nine or more): quality, size, age, colour, origin/nationality.

In order to balance realism with test requirements, 30 items (see **Appendix A**) were created as follows: 20 items with a sequence of two adjectives before a noun and 10 items with three adjectives before the noun. The two-adjective sequence is far more common in authentic English than any longer sequences, but since two adjectives have only two possible orders the risk in a test is that the correct order can often be arrived at by blind guessing. The three-adjective sequence is infrequent, but from the test point of view is better because three adjectives can logically be placed in six possible orders, so pure guessing is far less likely to produce a correct answer. 30 items were considered enough to achieve the goal of systematic coverage without stretching the demands on participants' concentration beyond reasonable limits.

2.5. The Adjective Sentences

In all items, the adjectives appeared before a noun in a simple sentence which contained vocabulary judged to be familiar to the testees. The adjectives preceded a noun in a noun phrase that was either definite or indefinite. That phrase was either in direct object or prepositional object position. The sentence context was included so as to make it clear that the adjective order that was appropriate was the default choice that we wished to test and not any marked or otherwise exceptional order such as those discussed in the literature review.

The 20 two-adjective items were constructed comprising two items for each of the 10 possible pair combinations of the five categories (e.g., quality – size (qs), quality – age (qa), etc.). Each item took the form of two simple sentences, identical except for the order of the two targeted adjectives. Since two adjectives can only occur in two possible orders, this exhausts the possible orders. For each item, one order was correct in English and the other not (but usually an acceptable surface order in Arabic). The response options offered were: the first example is correct, the second example is correct, both are correct. The third option (which was counted as a wrong response) was needed since we wished to check for Arabic influence and in Arabic in some instances both orders were correct. The full test is available in the Appendix.

We attempted to rule out participants using the non-transfer-based strategy of 'if in doubt pick both' by the wording of the test instructions, where it was made clear that picking both was not counted correct if in fact only one of the two orders was correct. English arguably has only one unmarked correct order: by contrast, half of the examples used in the study were ones whose Arabic translation was judged to allow a second order in Arabic beside that which is the MIO of the English order. If in these cases participants tended to pick both for English, this would be an indication of L1 (negative) transfer of multiple orders occurring.

The 10 three-adjective items were constructed comprising one item for each of the 10 possible triad combinations of the five categories (e.g., quality – colour – nationality: qcn). Each item took the form of three simple sentences, identical except for the order of the three targeted adjectives. Since three adjectives can be placed in six possible orders, this does not exhaust the possible orders. The three chosen orders were: the correct English order; the reverse (MIO) of the correct English order (= the surface order usually accepted in Arabic); one other order (which in most cases was accepted in Arabic). For each item, the response options were: the first example is correct, the second example is correct, the third example is correct; more than one example is correct (two or three).

The order of items, and of the sentences offered within each item, was randomized using Research Randomizer (https://www.randomizer.org).

2.6. Data Analysis

Data was exported from Outlook Forms as an Excel sheet, and quantitative analysis was conducted within Excel and JASP. The data failed the Shapiro-Wilks test of normality, so non-parametric significance tests were used (e.g., Spearman *rho* and Wilcoxon tests). Scores were calculated as follows. Correctness was quantified for each participant as the total out of 30 where each participant chose only the one correct English option, which was the reverse (MIO) of

the normal Arabic order (missed items counted as wrong). This was converted to a percent correct score. Scores were also calculated for each participant's percent choice of each type of wrong option that was available, out of all incorrect options chosen. Types of wrong choice were: only the Arabic MIO order, more than one order, and (in three-adjective sequences only) another wrong order.

2.7. Accuracy

Reliability of the test was assessed by calculating the percentage agreement between each person's responses for each matched pair of two-adjective items (a pair being, for example, items 15 and 20, which both tested the quality – age order). Mean agreement was 63.1%. That is, on average, participants gave the same response to both members of a pair almost two thirds of the time. While an agreement of 70% or better would have been desirable, this was felt to be acceptable given that participants were learners, so likely to exhibit greater variability than native speakers. Validity was supported by the involvement of an independent English native speaker applied linguist to judge the test items. The method is a considerable advance on that used in almost all the other studies found in this area. It does however have some limitations that could only have been remedied by imposing an excessive burden on the goodwill of the participants. For instance, it would have been desirable to assess English proficiency with an internationally recognised English proficiency test. Also, more repetitions of each adjective order in the test would likely improve test reliability. Furthermore, a parallel test of participant judgment of Arabic sentences would have enabled a more refined case by case evaluation of possible L1 influence.

3. Results

3.1. Correct Response

Relevant to RQ1, **Table 2** shows that, overall, 30 items, the correct response was given on average 60% of the time. All three means are significantly above the 50% level (Wilcoxon signed rank median test $p < 0.01$). Ranges and SDs are all quite large, which reflects the wide range of English ability in the group, as indicated by the wide range of university levels and reported years of learning English. That is especially true of the result for the three-adjective items. The overall mean of 60% is not far from that of 66% found by Al-khresheh and Alruwaili[18] in the same context. We take a correct answer to indicate that the learner has learned the correct order in English and/or has learned that the English order is the reverse (MIO) of the dominant Arabic order (positive transfer).

3.1.1. Effect of Learner Background Variables

Among background variables, neither level in university, type of major, nor gender, correlated significantly with correctness. That suggests for example that English majors do not receive special instruction in adjective order that gives them any advantage over non-English majors. However, the years of learning English correlated significantly positively with all three correctness measures: all items ($rho = 0.304$, $p < 0.001$), two-adjectives ($rho = 0.242$, $p = 0.005$), three-adjectives ($rho = 0.290$, $p < 0.001$). That is to be expected, since greater exposure to a language normally increases proficiency, which in turn correlates with adjective order knowledge (as also found by Alotaibi and Alotaibi,[17]).

3.1.2. Effect of Number of Adjectives in Sequence

As found in earlier studies, two-adjective sequences were correctly identified more often than three-adjective ones. This difference (6.27%) was highly significant (Wilcoxon $z = 3.210$, $p = 0.001$, effect size (matched rank-biserial correlation) = 0.335).

3.1.3. Effect of Adjective Category Distance From Noun (Overall)

A way of summarizing the correctness results for each adjective category separately is to calculate the mean correctness for sequences containing each category, across all 30 items in the test. This gives the following, in descending order: sequences containing n 64.36, s 59.19, c 59.12, q 57.35, a 53.51. This tells us that, for the five adjective categories considered in this study, sequences containing nationality are most often correctly placed while those containing age are the least correct.

This then enables us to ascertain if the suggestion in a few studies reviewed above (e.g., Amusan,[6]) is supported – those adjectives closer to the noun head (in the correct English sequence) are ordered more consistently and correctly by learners, while those further away are less correctly or-

Table 2. Descriptive Statistics for correct response (%).

	All Items	Two Adjectives	Three Adjectives
Mean	60.37	62.46	56.19
Std. Deviation	16.93	15.56	25.33
Minimum	23.33	25.00	10.00
Maximum	96.67	95.00	100.00

dered. As can be seen there is only partial support for this since the expected descending order of accuracy would be ncasq, but the observed order is nscqa. Spearman *rho* correlation = +0.5, $p = 0.391$, which is not significant. We can only say that the present study supports that hypothesis for n and less strongly for q, which is in second last position.

3.1.4. Effect of Adjective Category Separation

It is perhaps more sensible to focus on differences in correctness among adjective sequence types, rather than individual adjective categories, though this, to our knowledge, has not been systematically reported before. This analysis revealed signs of what we will call the effect of adjective category separation.

3.1.5. Effect of Adjective Category Separation in Three-Adjective Sequences

The three-adjective sequences follow the order of mean correctness seen in **Table 3** (overall Friedman *chi sq (df 9) = 97.5, $p < 0.001$*, effect size (Kendall's *W)* = 0.081). Many pairs of the three-adjective sequences differ from each other significantly in accuracy (Conover test $p < 0.05$).

It is noticeable that the sequences with highest correct scores were the three sequences where in English the first and last categories are potentially separated by the largest number of other categories in the sequence ' s' 'a' 'c' 'n' (from **Table 1**), i.e., in our study: q…n (qsn, qcn, qan). Together with scn, these are significantly higher than 50% correct. On the other hand, the lowest scores are predominantly achieved by sequences where the three categories are adjacent, so spread out minimally across the adjective order (marked min in **Table 3**). It is even evident among the minimum separated sequences that the scores are slightly better where the sequence contains 'ac' than when it does not. That could be explained by the concept of separation in that although 'a' and 'c' are adjacent in the selection of categories used in the present study, in fact (as **Table 1** shows) they are in the full underlying order separated by categories like shape that were not included (unlike in 'qsa'.

Although we have not seen this principle of separation stated in the literature, it is surely easier to correctly judge the order of two things that are separated by a number of others in a sequence than to judge the order of those that are adjacent. For example, one may readily answer that Venus is closer to the sun than Jupiter in the order of the planets (separation 2) but struggle or be less certain about which of Jupiter and Saturn (adjacent, so with minimum separation) is closer to the sun. see further Discussion below.

3.1.6. Effect of Adjective Category Separation in Two-Adjective Sequences

The findings for the two-adjective sequences also evidence something of this phenomenon, but less clearly. **Table 4** shows the two-adjective results from the most to least correct pairs, which can be interpreted as from the easiest orders to learn to the hardest. All means except those for 'qs' and 'cn' differed significantly from 50% correct (Wilcoxon signed rank median test $p < 0.01$). That is, 'qa' was significantly below 50% correct, 'qs' and 'cn' were not significantly different from 50%, and the others were significantly above 50%.

Statistically 82% of the pairs of means in the set of ten are significantly different from each other (overall Friedman chi *sq* ($d f$ 9) = 149.1, $p < 0.001$, effect size (Kendall's W) = 0.124).

The easiest pairs of categories to get right here are 'sc' (size – colour) and 'qn' (quality – nationality). The ease of 'qn' is again explicable by it representing the extremes of the sequence of adjective categories that we included, q s a c n, so with maximum conceptual space between the two categories. The high position of 'sc' is less expected but, while qn contains the first and last categories, 'sc' contains the next to first and next to last. The least separated pairs (min) are also not entirely as expected from the category separation principle, which would predict them to be the lowest scores. Instead, some pairs with intermediate separation are

Table 3. Mean correct scores for the three-adjective combinations, in descending order of mean value.

	qsn	qcn	qan	scn	qsc	san	acn	sac	qac	qsa
Separation	max	max	max				min	min		min
Valid n	134	134	134	134	134	134	134	134	134	134
Mean	74.6	70.9	64.9	62.7	57.5	56.0	50.7	50.0	40.3	34.3
Std. Deviation	43.7	45.6	47.9	48.5	49.6	49.8	50.2	50.2	49.2	47.7

Table 4. Mean correct scores for the two-adjective combinations, in descending order of mean value.

	sc	qn	an	ac	sn	sa	qc	qs	cn	qa
Separation		max		min		min		min	min	
Mean	81.4	79.1	69.4	68.7	64.9	59.0	58.6	51.5	50.4	41.8
SD	29.8	31.4	33.0	36.6	36.3	37.2	58.6	41.1	39.5	36.4

scattered among them. However, the two lowest are the pair closest initially 'qs' and the pair closest finally 'cn'. The greatest departure from what we would expect from the concept of separation is 'ac', but we already argued above that this is minimally separated only in the subset of categories chosen for the study and not in the full sequence (**Table 1**), which would be reflected in input that participants may have received.

The exceptionally low score for 'qa' was caused by one of the two test items, which contained a 'qa' sequence (*He wore smart new shoes*), which was correctly accepted by only 25.4% of participants. This is considerably below the next lowest score for a single two-adjective item (50%), and indeed the score for the other 'qa' item (*I visited the beautiful old mosque* 58.2%). That in turn could be due to perhaps to student unfamiliarity with the word *smart.* In any case, overall, the support for the category separation explanation of sequence difficulty is only moderate from the two-category sequence.

3.2. Incorrect Response and Possible L1 Transfer

Explanations for degrees of correctness considered above did not refer to language differences (RQ2). However, a common contrastively based expectation is that, where the language being learned differs in some respect from learners' L1, that feature will be harder for learners to learn, so they will evidence more errors due to transfer from L1 (e.g., claimed by Amer[23] Zawahreh[12]). Therefore, a number of analyses targeted the erroneous responses in relation to L1.

3.2.1. The Reflection of L1 Order Norms in Participant English Responses

From the literature review account above, the simple assumption about Arabic (both MSA and Najdi) is that it primarily selects the MIO of the English order but tends to allow multiple orders in some cases. Note that logically, any order other than the MIO offered by Arabic will be closer to the English order than the MIO which on the surface is the exact opposite of the English. Therefore, a basic way to assess transfer is to look for the incidence of those features in the English error responses overall.

Table 5 shows that for two-adjective sequences, the MIO is by far the predominant wrong single response (87%). In statistical analysis of the two-adjective sequences, the single wrong choice alone was picked by participants significantly more often than the choice of both alternatives (Wilcoxon $z = 9.39$, $p < 0.001$, effect size (matched rank-biserial correlation) = 0.956). There are two implications.

First, this suggests that, despite its incidence in L1, the choice of more than one order as correct is not widely transferred into English. The learners have the (correct) idea that English typically allows only one correct order. Second, the result superficially appears to show that MIO is widely transferred into English. However, the result is perhaps not as convincing evidence of L1 transfer as it at first appears, because if a learner makes a wrong response there exists only one possible single alternative order to the correct one (e.g., *huge yellow sc)*, and that is the MIO (*yellow huge)*. A better indication comes from the three-adjective sequences where there is a choice of single wrong answers, not only the MIO.

Turning to the three-adjective sequences, the overall difference between the three types of answers is also sig-

nificant (overall Friedman *chi sq (df2) = 15.19, p < 0.001,* effect size (Kendall's *W) = 0.061).* The post hoc Conover test showed that this was due to the 'other' single wrong choice significantly exceeding both MIO and 'more than one' options in popularity ($p < 0.01$) while the latter did not differ significantly from each other.

It is again apparent that choosing more than one option as the answer is not heavily favoured, consistent with the two-adjective sequence result. Thus again, L1 transfer of the tolerance of more than one order is not strongly supported. A single wrong answer was chosen more than twice as often as more than one option (71% vs. 29%). Multiple responses then constitute only a minority of the errors although it is twice as prevalent for the three-adjective sequences as two-adjective ones. That might, however, be simply due to the fact that more different orders are logically possible with three-adjective sequences (6 rather than 2), so that suggests that more than one order might be used, rather than any contrastive factor.

The other notable finding is that in the three-adjective sequences, where another wrong single choice is available alongside the MIO, the MIO is chosen far less (26%) than other single wrong choices (45%), which does not support overwhelming L1 transfer of the surface MIO. This suggests that the surface MIO is less favoured where any other option (which is more similar to English) is available. In other words, these learners tend to assume that something other than the main surface Arabic order is more likely to be the English order. That would be the reverse of the usual contrastive based expectancy, which is that learners think the L1 pattern simply applies to L2.

This analysis however has some limitations. In particular, it does not take into account that Arabic data does not present a totally uniform picture across all items.

3.2.2. The Reflection of L1 Item Variation in English Responses

Another way of assessing L1 influence was to see if L1 variation between individual items was reflected in the English responses. To achieve that, each item (rather than each learner, as above) was scored separately for the proportion of its wrong answers in English where participants just chose the MIO, the proportion where they chose just another order (3-adj sequences only), and the proportion where they chose more than one order. Translation equivalents of the items were also rated 0–2 for how far the Arabic varieties allowed sequences closer to the surface English order (not just MIO), and 0–2 for how far the Arabic varieties allowed more than one order (those measures being almost identical).

Spearman correlations were then calculated to see if the types of wrong answer correlated with the Arabic L1 features, using the 30 items as cases. No correlations were significant ($p > 0.3$), except for one. For instance, there was no tendency for items that allowed more than one order in Arabic to be the ones where participants chose more than one order in English. Nor was there a significant tendency for 3-adjective items that allowed an order other than MIO in Arabic to be ones where participants chose a non-MIO option in English.

However, notably there was a significant tendency (across the 30 items) for those allowing a non-MIO possibility in Arabic (so an order closer to the English order) to be items where the participants did not choose the MIO response in English ($rho = -0.473$, $p = 0.008$). That means that, when wrong, they tended to choose either multiple orders or just the non-MIO option.

Thus, at the granular level of individual items, there is again little evidence for transfer of the Arabic tendency to allow multiple orders, but there is some evidence for transfer of non-MIO orders from Arabic.

4. Discussion

Overall, the study provides more evidence for non-contrastive effects on adjective order learning than for L1-based ones. This is consistent with El Shaban's[11] impression and indeed more generally with those who tend to downplay L1 (interlinguistic) influence in second language learning in favour of intralinguistic factors within the target language, such as frequency in input of what is to be learnt[26] and its complexity[27].

In answering RQ1 it was found that three such factors might be at work. Since they cannot yet be said to be definitely established, they are presented as hypotheses for further research.

- Length. The adjective sequence length hypothesis: the order of longer sequences is harder/learned later than that of shorter ones (also noted by Al-khresheh and Alruwaili[18]). This is explained by frequency, because shorter sequences

Table 5. Error response choices as percent of all error responses.

	Two Adjective Items n = 134 (Errors = 37.5% of All Responses)		Three Adjective Items n = 124 (Errors = 43.8% of All Responses)		
	MIO Alone Chosen%	**2 Options Chosen %**	**MIO Alone Chosen %**	**Other Wrong Single Choice**	**2/3 Options Chosen %**
Mean	87.3	12.7	26.0	44.9	29.1
Std. Deviation	21.29	21.29	25.71	30.45	31.11

(two adjectives) occur far more often that longer ones in input received by learners, whether learning by instruction or immersion. Also sequences that are longer are for that reason more complex, and require more working memory space to process and store than shorter ones.

- Distance. The adjective category proximity to head hypothesis: adjectives located closer to the noun head in the underlying canonical sequence have their position learned more easily than adjectives further away (also noted by Amusan [6]). This perhaps parallels other linguistic structures where the distance of something from the head increases complexity and makes it harder to process and learn due to an additional memory burden. For example, subject relative clauses, as in *the girl who saw the boy* are easier to process and acquire than object relative clauses, as in *the girl who the boy saw* [28]. This is due to the relativized object being more distant from the head than the relativized subject, at a deeper level of structure. In simple terms the underlying structure of the subject relative is *the girl [the girl saw the boy]* with dependent clause subject adjacent to head; that of the object relative is *the girl [the boy saw the girl],* with an extra burden due to the separation of relative clause object from head.
- Separation. The adjective category separation hypothesis: sequences containing adjectives far apart in the underlying canonical sequence have their order learnt more easily than sequences of adjectives closer together (this paper only). This does not involve the notion of distance from any external head, only within the adjective sequences. There is a similar psychological phenomenon known to linguistics as the 'bathtub effect' in learning the sequence of sounds or letters that make up a word [29]. That is that the first and last sounds/letters of a word, which are of course most distant from each other, are the most memorable (cf. primacy and recency effects in psychology). Also, referring more directly to closeness of items in a sequence, rather than just their extreme positions, the 'symbolic distance effect' [30] is relevant: "The time required to compare two symbols varies inversely with the distance between their referents on the judged dimension" (p. 228). Although that refers to complexity of processing rather than acquisition, the two are typically related [31].

Clearly, those three factors are not independent of each other. Greater separation of adjective categories will affect how close they are to the noun head. However, greater length of the sequence of adjectives tested does not in itself affect separation of adjective categories within the underlying sequence. There is much to do here in future research to explore the interlocking roles of such factors in the learning of linguistics order.

In other respects, answers to RQ1 were in line with previous work. The study found a comparable overall level of correct response to that in a study of similar Saudi participants [18], demonstrating that, in a tertiary level group with a considerable ability range, well over half of the adjective order items were answered correctly on average (range 73%). Abubakar et al. [4] in a Nigerian school context had recorded only half that rate. However, fair comparisons are hard since the English proficiency of the participants is not usually accurately measured, although the present study supported its positive relationship with performance on adjective order.

The findings for RQ2 provided only weak evidence in favour of L1 transfer influence. To my knowledge this is the first study attempting to separately effects of L1 primary order (Arabic MIO), and of L1 multiple orders, and neither were very strongly supported in the response data. The former is what is usually reported and is a common claim in the literature in this area (e.g., Abubakar et al. [14]). However, these other studies have not often supplied enough evidence to show that the claims of L1 transfer are properly supported.

In fact, among the wrong choices (analysed both with people and items as cases) the best evidence was for participants choosing a single order other than the normal Arabic order (MIO), when one was available (i.e., for three-adjective

sequences). After that, they chose multiple orders over the MIO order in three-adjective sequences. The high rate of choice of the Arabic MIO order for two-adjective sequences does not prove L1 transfer since with two adjectives there is no other single wrong order available that they could choose. Since their choice of a non-MIO order when available did not occur only in items where such an order was possible in L1, we may suppose that the participants may have been choosing strategically, with a belief that 'any order other than my primary L1 order is more likely to be acceptable in English'. This sort of strategy has long been known to be used by learners[32] and could be found in tertiary level student such as those of the present study who, although not with very high English proficiency, perhaps have greater language awareness. All these findings however need replication in further studies before they can be relied on.

Finally, we may ask what these findings for RQ1 and RQ2 show more widely about the actual mechanism of learning adjective order. If there is little appeal to L1 at the level of the participants, except as a last resort, then how do they learn by other means? The three hypotheses, if confirmed, suggest that both the archetypal classroom methods of rote and rule are operative[33]. The length effect that was found refers to the surface length of the adjective string being handled: *a nice car* is the same length as *a German car*. This effect then reflects learners operating at the level of rote memorization of strings of adjectives that they meet and perhaps dealing with novel sequences 'by analogy' with ones they recall. However, the distance and separation effects involve the underlying sequence where *a nice car* is 'longer' than *a German car* because of all the intervening slots for other adjectives to potentially occur in the former (**Table 1**). Thus, the fact that there was some evidence of these effects supports the view that, at least in part, learners are operating (consciously or not) with some sort of rule or model that represents a deeper level of adjective order.

5. Conclusions

This study had a number of limitations in how much it was practically possible to measure (3.7). Furthermore, the knowledge tested was receptive rather than productive. Also, the findings are not necessarily generalisable beyond Saudi Arabia. However, the study has broken some new ground in systematically testing knowledge of all possible combinations of five adjective categories. This attention to the categories is not widely achieved in the few existing studies of foreign learner English adjective order. It was possible then to demonstrate that L1 transfer may not be the dominant factor affecting the learning of adjective order: the three considerations of length (of sequence), distance (of adjective category from noun head) and separation (between adjective categories) may be at least as important.

This is interesting for SLA research, where the contributions to foreign language learning of L1 in contrast with other factors remains a subject of hot debate. It also has implications for EFL teaching. It suggests that, rather than looking at L1–L2 differences, teachers and materials might do well simply to pay special attention to harder sequences of adjectives: ones that belong to adjacent categories and are distant from the noun head in the underlying canonical adjective order, such as quality - size - age.

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Informed Consent Statement

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Data Availability Statement

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Conflict of Interest

The author declares that there are no conflicts of interests regarding the publication of this paper.

Appendix A

The Instrument

Instructions

In languages we often find that words have to come in a certain order. Other orders are not allowed, or only used when a person wants to express a special meaning.

For instance, we know that in English it is quite normal to say *I saw Ahmad yesterday* or *Yesterday I saw Ahmad.*

On the other hand, we would rarely hear a native speaker saying *Ahmad I saw yesterday*. That order is not impossible, but it is not a normal order. It would only be said when it was necessary to single out Ahmad for special attention. An example could be answering the question: *Did anyone see Ahmad or Muhammad recently??*

In this test the focus is on the normal order of adjectives. You are asked what you think is the normal order that native speakers of English would use. For example:

0	I need a *round wooden* table	
	I need a *wooden round* table	

In this case, in fact, just the first alternative has anormal order.

0	I need a *round wooden* table	
	I need a *wooden round* table	

Consent form:

You are invited to participate in a study of Acquisition of English pre-nominal adjective order by Saudi learners. The purpose of this is to explore your receptive knowledge of adjective order in English, and possible reasons for some sequences proving easier for you than others. Information you provide will be made anonymous and your participation is voluntary. You can decide to withdraw from taking part in this research at any time without giving your reasons for doing so.

Your details will be kept confidential and will be used only for the sake of the above study. By entering the survey, you indicate that you have read the information provided and agree to participate.

Thank you!
Dr. Manal Alghannam
Now, please tick whichever options you think are normal in English.
Questionnaire's link:
https://forms.office.com/r/KV52ZYGuTT?origin=lprLink

	For each pair of sentences, please tick the choice that you think a native speaker of English might normally say or write. **You may tick either just the first or just the second or both, depending on what you think.** **In each case only one of those three options is correct.**	**Please tick**
1	They liked his *red trendy* jacket They liked his *trendy red* jacket	
2	He met a *friendly American* businessman He met an *American friendly* businessman	
3	We bathed in the *blue Arabian* sea We bathed in the *Arabian blue* sea	
4	He met a *German young* tourist He met a *young German* tourist	
5	He brought his *little old* mother He brought his *old little* mother	
6	They waved an *ancient green* flag They waved a *green ancient* flag	
7	I visited the *ancient Egyptian* pyramids I visited the *Egyptian ancient* pyramids	

	For each pair of sentences, please tick the choice that you think a native speaker of English might normally say or write. **You may tick either just the first or just the second or both, depending on what you think.** **In each case only one of those three options is correct.**	**Please tick**
8	She stayed in a *Tunisian small* town She stayed in a *small Tunisian* town	
9	She bought a *big nice* apartment She bought a *nice big* apartment	
10	She was carrying a *small blue* bag She was carrying a *blue small* bag	
11	They waved the *Russian red* flag They waved the *red Russian* flag	
12	I saw the *yellow huge* bird I saw the *huge yellow* bird	
13	He wore an *old blue* jacket He wore a *blue old* jacket	
14	He brought his *big nice* car He brought *his nice* big car	
15	I visited an *old beautiful* mosque I visited a *beautiful old* mosque	
16	She has a *tall young* son She has a *young tall* son	
17	I visited the *African vast* desert I visited the *vast African* desert	
18	She avoided the *mouldy green* grapes She avoided the *green mouldy* grapes	
19	I ate some *delicious Greek* yoghurt I ate some *Greek delicious* yoghurt	
20	He wore *new smart* shoes He wore *smart new* shoes	
	Now here are some longer ones **Again tick one or more, whatever you think is normal in English**	
21	He bought a *new Japanese black* car He bought a *Japanese black new* car He bought a *new black Japanese* car	
22	He wore a *grey old dirty* coat He wore an *old grey dirty* coat He wore a *dirty old grey* coat	
23	They met a *teenage Greek short* boy They met a *short teenage Greek* boy They met a *Greek teenage short* boy	
24	She bought some *red lovely big* roses She bought some *lovely big red* roses She bought some *red big lovely* roses	
25	He married a *beautiful tall Canadian* musician He married a *Canadian tall beautiful* musician He married a *tall Canadian beautiful* musician	

	Now here are some longer ones **Again tick one or more, whatever you think is normal in English**
26	He bought a *beautiful blue Dutch* teapot He bought a *Dutch blue beautiful* teapot He bought a *blue Dutch beautiful* teapot
27	We visited the *great red Chinese* temple We visited the *red Chinese great* temple We visited the *Chinese red great* temple
28	We met a *handsome young Italian* painter We met an *Italian young handsome* painter We met an *Italian handsome young* painter
29	He lives in the *old little ugly* house He lives in the *old ugly little* house He lives in the *ugly little old* house
30	I cooked the *tiny young green* leaves I cooked the *green tiny young* leaves I cooked the *green young tiny* leaves

Finally please tell me a bit about yourself

Your Level in the university

Your major

How many years you have been learning English

Gender

At home, would you say your spoken dialect is Najdi or some other dialect?

Thank you!!

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