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ADJECTIVE SEQUENCING IN GA

Yvonne Akwele Amankwaa Ollennu
University of Education, Winneba
Ghana

ABSTRACT

The use of multiple words to describe nouns is a common phenomenon in language and languages that have adjectives mostly employ this word class. Ga, a Kwa language of the Niger Congo branch, is no exception, whereas languages without adjectives may use other lexical categories like nouns and verbs which play the adjectival role. Ga has adjectives and employs them as attributives for nouns. The paper examines the syntactic rules governing the occurrence of several adjectives serving as attributes of a single head noun. In this paper the noun is considered the head of the Ga Nominal Phrase. The order of these adjectives has not received scholarly attention in Ga and this is to fill that gap in the literature. I argue that the order of adjectives is not haphazardly arranged but follows a laid down syntactic prescription. For instance, the data showed that Dimension adjectives normally occur in first position, whereas Colour adjectives occur further from the head noun. It was also revealed that in the ordering of adjectives in which value adjective is included, the Age adjective occurs in last position and Value adjective occurs first or last when included in the ordering of adjectives for a noun. Consequently, it is suggested that defying the arrangement in the ordering of the adjectives results in unacceptable forms. The adjectives are grouped according to semantic classes. Data are gathered from native speakers of Ga. The findings contribute to the existing literature on adjective sequencing in Ghanaian languages.

Keywords: property concept word, sequencing, semantic class, attributive.

1 INTRODUCTION

The use of property concept words to describe nouns in language is not uncommon. More than one property concept word could be used to serve as attributes for a noun. Palancar (2006) explains property concept words as words that denote adjectival meaning. This may include adjectives, nouns and verbs. The word class that is mostly used to serve as attributes is the adjectives. Languages that have adjectives normally employ them in serving as attributes for nouns. Otoo (2005) and Amfo, Boateng and Otoo (2007) have

postulated that there exist derived and non-derived adjectives in Ga. The use of multiple adjectives does not occur haphazardly but may be arranged in a specific order. Sometimes the arrangement of multiple adjectives as attributes for a noun may be strictly arranged while others may not be done strictly but a preferred order may be accepted by speakers. Many studies have been carried out on adjectives in languages across the world (e.g. Welmers 1973, Bhat 1994, Osam 2003, Ameka 2003, Cinque 2005a, 2005b, Danti 2007, Dixon 1982, 2001, 2004, 2006, Adjei 2007, Ahranjani 2011). The ordering of multiple adjectives modifying a noun, especially in Ghanaian languages, however, has few studies as the focus of most work carried out on adjectives is an investigation of the morphosyntactic properties of the adjectives. The few that deal with sequencing of multiple adjectives in Ghanaian languages that I have come across include Adjei (2007), Danti (2007), Pokua, Saah and Osam (2007), and Ababila & Nsoh (2009). However, Ga has not received any detailed scholarly attention on the ordering of multiple adjectives in the noun phrase and this informs the motivation for this study. Danti (2007) in a study on Kasem argued that Dimension adjectives in Kasem normally appear first and what normally appears last is Value adjectives. He further stated that when Colour and Physical adjectives are sequenced, Colour occurs before Physical Property. Danti (2007) concluded his studies by iterating that the ordering of adjectives in Kasem is not strict but that speakers mentioned what they find necessary and most important to them during interaction in terms of the adjective. In Siyase, Adjei (2007) stated that Age adjectives appear in first place and the order is mostly dependent on the speaker. Pokua, Saah, and Osam (2007) also argued that in Akan Age and Colour adjectives are nearer to the noun when sequenced whereas Human Propensity adjectives are far from the head noun. Some scholars have proposed sequencing for the multiple use of adjectives and among these are Sproat and Shih (1991) for Chinese cited by Teodorescu (2006) this is Quality-Size-Shape-Colour-Provenance. Cinque (1994) proposed the order Possess-Speaker Oriented-Subject Oriented-Manner/Thematic. Mckinney-Bocks (2010) proposed the order evaluative-size-shape-condition-Human-Propensity-Age-Colour-Origin-Material-attributive noun. Dixon (2004) gave the order: Value–Dimension–Physical Property–Speed–Human Propensity–Age–Colour. The orderings proposed were all based on English. Dakubu (2002) briefly discussed adjectives in Ga but little detail was given on the ordering of multiple adjectives.

The aim of this paper is to ascertain the order in which multiple use of adjectives in Ga occur. It intends to find if the order is restricted or not. As mentioned by Teodorescu (2006), the order, though it may be restricted, is sometimes not adhered to. This is due to the presence of exceptions; for example, the occurrence of commas in between multiple adjectives employed to modify a head noun may deviate from the restricted order but it is acceptable. With the commas occurring the order may be in any form as it is an exception. Cinque (2005b) also suggested that adjective ordering is not adhered to when the speaker is focusing on something. A deviation from the

known arrangement of multiple adjectives may occur intentionally in order to send a message, across as noted by Malouf (2000). The paper investigates the ordering of adjectives when more than one serves as attributes for a noun. The semantic classification by Dixon (1982) on adjectives will be used to group the Ga adjectives. In this paper, the analysis did not include nominal adjectives.

2 DATA COLLECTION METHOD

The total number of questionnaires used to gather the data for this paper was 59. The questionnaires were given to natives who were in areas like Ga Mashie, Osu, in the Greater Accra Region and in Ajumako in the Central Region. The Ajumako respondents were mainly third-year students of the Ga unitog the Ga-Dangme Department in University of Education, Winneba in the 2013/2014 academic year. The section on the arrangement of the multiple use of adjectives was part of a questionnaire used by the researcher to obtain information on adjective sequencing in Ga. There were a set of constructions in the questionnaire where respondents were asked to rank the constructions given in each question. The rankings were on the following scale

0 – completely acceptable 1- highly unacceptable 2-quite unacceptable 3- quite acceptable 4- highly acceptable 6-completely acceptable

The method of ranking the constructions followed the similar ranking of Pokua (2003). However, the Pokua scale (2003) was modified slightly to include ‘no response’ in the analysis to cater for these data. The age range of the respondents was 18-60 plus and they comprised Ga students, Ga teachers and non Ga/student teachers and most of them had some level of literacy. This age range was chosen so as to get a clear picture of the multiple use of adjectives among the youth and old. The total number of respondents who gave a specific order was calculated and presented as percentages. The ordering with the highest scores was seen as the preferred order by the natives.

3 THEORETICAL FRAME WORK

Dixon’s (1982) semantic classification of adjectives was employed in this paper in classifying the adjectives. Though Dixon proposed a new semantic classification of adjectives in 2004, it was not employed since in the recent study most of the adjectives do not have equivalents as other lexical categories are used to express them. For instance, the Human Propensity class has no adjectives to express them in Ga except nouns that can fill that slot. Osam (1999) refers to such nouns as nominal adjectives Examples of such

nominal adjectives in Ga are *awuŋayelɔ* 'wicked person', *anihaolɔ* 'lazy person'. Dixon's 1982 classification was as follows:

Class	English	Ga
Dimension	big, small, large	agbo, bibioo, lɛkɛtɛɛ
Physical property	eg hard, soft	keketee, bɔdɔɔ,
Colour	eg red, black, green	tsuru, diŋ, eŋɔli
Age	eg new, old	hee, momo
Speed	eg fast	gidigidi,
Human propensity	eg boastful, angry	
Value	eg good, bad	kpakpa, fɔŋ

From the above, it was noted that there were no Ga equivalents for Human Propensity adjectives.

4 DATA ANALYSIS

Abbreviations were used to represent the adjective classes sampled and they were the first sounds for the semantic class the adjectives belonged to. These abbreviations were put in upper case to represent them in the sentences and tables, for instance Dimension type was represented with D, Value with V, etc.

4.1 Sequencing of two adjectives

The questionnaire focused more on the sequence of three adjectives modifying a noun; nevertheless, two questions tested the sequence of two adjectives which yielded results below.

1a. Tsò fɛ́fɛ́ó kàkàdáŋ́ŋ́ lɛ é -kú.
Tree beautiful long DEF PERF-break
V D
'The beautiful long tree broke.'

1b. Tsò kàkàdáŋ́ŋ́ fɛ́fɛ́ó lɛ́ é -kù.
Tree long beautiful DEF PERF-break
D V
'The long beautiful tree broke.'

From Table 1, out of the total of 59 respondents, 25 representing 42.4% preferred Dimension (D) adjective appearing before Value (V) adjective. 27.1% of the respondents preferred Value (V) before Dimension (D) which represents 16 out of the 59 respondents. For aggregate total on the

acceptability scale for Value before Dimension adjectives (V-D). 40 out of 59 preferred the order V-D, while 49 out of 59 preferred the order D-V. When the two adjectives are from the semantic classes of Dimension and Value, it could be seen that the speakers preferred the D-V order. This shows a reverse order to that which Dixon (2004) proposed for English.

Table 1: Two adjectives from the Semantic Group of Dimension (D) and Value (V)

LEVEL OF ACCEPTABILITY	**V –D**		**D –V**	
	FREQ	**%**	**FREQ**	**%**
Completely acceptable	16	27.1	25	42.4
Highly acceptable	14	23.7	12	20.3
Quite acceptable	10	16.9	12	20.3
Quite unacceptable	5	8.5	7	11.9
Highly unacceptable	6	10.2	2	3.4
Completely unacceptable	8	13.6	1	1.7
No response	0	0	0	0
Total	59	100	59	100

Dimension class and Age class adjectives tested are seen in illustration (2a-b).

2a. Àtàdé **hèè àgbó** !lɛ́ é -fɔ̀.
Dress new big DEF PERF- wet.
A D
'The new big dress is wet.'

2b. Àtàdé **àgbò éhèé** !lɛ́ é -fɔ̀.
Dress big new DEF PERF-wet.
D A
'The big new dress is wet.'

Table 2: Two Adjectives from Dimension (D) and Age (A)

Level of acceptability	**A –D**		**D –A**	
	Freq	**%**	**Freq**	**%**
Completely acceptable	30	50.8	6	10.2
Highly acceptable	14	23.7	8	13.6
Quite acceptable	7	11.9	13	22.0
Quite unacceptable	6	10.2	5	8.5
Highly unacceptable	0	0	14	23.7
Completely unacceptable	1	1.7	8	13.6
No response	1	1.7	5	8.5
Total	59	100.0	59	100.0

An examination of Table 2 shows that respondents prefer Age adjectives to precede Dimension adjectives. The scores for the A-D order surpass the order D-A especially on the levels of completely acceptable, and highly acceptable in most of the cases investigated. This is similar to Age adjectives occurring closer to the noun in English and Akan.

4.2 Sequencing of three adjectives

The analysis of sequencing of three adjectives follows. This begins with adjectives from the classes of Physical Property (PP), -Dimension (D) –Age (A) as found in (3) below.

3a. È -hé àdékà **tsìŋmòò àgbò mómó** kò.
3SG-buy box heavy big old certain
PP D A
'S/he bought a heavy big old box. '

3b. È -hé àdékà **mómó tsìŋmòò àgbò** kò.
3SG- buy box old heavy big certain
A PP D
'S/he bought an old heavy big box.'

3c. È -hé àdékà **àgbò tsìŋmòò mómó** kó.
3SG- buy box big heavy old certain
D PP A
'S/he bought a big heavy old box.'

3d. È -hé àdékà **mómó àgbò tsìŋmòò** kó.
3SG-buy box old big heavy certain
A D PP
'S/he bought an old big heavy box.'

The aggregate totals on the unacceptability levels in Table 3 are PP-D-A 14(23.7%), PP A-D 20 (33.9%), A-D-PP 12 (20.4%) and D-PP- A 16(27.1%). On the level of completely acceptable, the orderings were: PP- D-A, 12 (20.3%), PP –A –D 8 (13.6%), A –D -PP 16 (27.1%) and D- PP –A scored 5 (8.5%). Evidence from Table 3 and from the aggregate total of acceptability levels A-D-PP ordering is the most preferred.

Table 3: Adjectives from the Semantic Class of Physical Property (PP), Dimension (D) and Age (A)

Level of acceptability	PP-D A		PP-A-D		A-D-PP		D-PP-A		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	12	20.3	8	13.6	16	27.1	5	8.5	8.5
Highly acceptable	17	28.8	21	35.6	12	20.3	18	30.5	30.5
Quite acceptable	16	27.1	10	16.9	19	32.2	20	33.9	33.9
Quite unacceptable	8	13.6	12	20.3	6	10.2	9	15.3	15.3
Highly unacceptable	3	5.1	5	8.5	3	5.1	6	10.2	10.2
Completely unacceptable	3	5.1	3	5 .1	3	5.1	1	1.7	1.7
No response	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

The sequencing of the adjectives from Physical Property (PP), Dimension (D) and Colour (C) are shown in the sentences in (4a-4d) with a summary of responses in Table 4.

4a. E -hé **báàgì tsìŋmòò wùlù díŋ** kò.
3SG-buy bag heavy large black certain
PP D C
'S/he bought a heavy large black bag.'

4b. E -hé báàgì **tsìŋmòò díŋ wùlù** kò.
3SG- buy bag heavy black large certain
PP C D
'S/he bought a heavy black large bag.'

4c. E -hé báàgì **díŋ wùlù tsìŋmòò** kò.
3SG- buy bag black large heavy certain
C D PP
'S/he bought a black large heavy bag.'

4d. E -hé báàgì **wùlù tsìŋmòò díŋ** kò.
3SG –buy bag large heavy black certain
D PP C
'S/he bought a large heavy black bag.'

Table 4: Adjectives from Physical Property (PP), Colour (C) and Dimension (D) Semantic Classes

Level of acceptability	PP-D-C		C-PP-D		D-C-PP		C-D-PP		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	10	16.9	6	10.2	18	30.5	8	13.6	13.6
Highly acceptable	7	11.9	13	22.0	7	11.9	23	39.0	39.0
Quite acceptable	20	33.9	11	18.6	12	20.3	13	22.0	22.0
Quite unacceptable	7	11.9	16	27.1	9	15.3	7	11.9	11.9
Highly unacceptable	6	10.2	9	15.3	12	20.3	5	8.5	8.5
Completely unacceptable	9	15.3	4	6.8	1	1.7	3	5.1	5.1
No response	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

The data revealed that the aggregate totals on the level of acceptability levels for the ordering are PP-D-C 37 (52.7%), C-PP-D 30 (50.8%) D- C-PP 37 (62.7%) and C-D-PP 44 (74.65). There was not much difference between the order of PP-D-C and C-PP-D in terms of aggregate total but on the completely acceptable level D-C-PP had 18 out of 59 whiles PP-D- C scored 10. Nevertheless, the most preferred order is C-D-PP as it has the least score for its aggregate total in terms of unacceptability level. This preferred order is similar to Kasem where Danti (2007) also suggested that Colour precedes Physical Property when they co-occur.

The ordering of adjectives from the Colour (C), Value (V) and Dimension (D) groups is examined in the example (5) below. Table 5 indicates the responses in descending order on the scale 5 to 0 for the sentences in (5).

5a. M i-nà akùtú **kpákpá bíbìóó tsùrù** kò.
1SG -see orange good small red certain.
V D C
'I saw a good small red orange.'

5b. Mi -nà akùtú **bíbìóó tsùrù kpákpá** kò.
3SG -see orange small red good certain
D C V
' I saw a small red good orange.'

5c. Mi -nà akùtú **tsùrù kpákpá bíbìóó** kò.

1SG –see orange red good small certain.
C V D
'I saw a red good small orange.'

5d. Mi -nà akùtú **kpákpá tsùrù bíbìóó** kò.
1SG- see orange good red small certain
V C D
'I saw a certain good red small orange.'

The ordering of adjectives from the Value (V), Dimension (D) and Colour (C) groups are examined in Table 5 with their frequencies.

Table 5: Adjectives from Value (V), Dimension (D) and Colour (C)

Level of acceptability	V-D-C		D-C-V		C-V-D		V-C-D		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	15	25.4	9	15.3	20	33.9	10	16.9	16.9
Highly acceptable	14	23.7	9	15.3	9	15.3	19	32.2	32.2
Quite acceptable	16	27.1	9	15.3	7	11.9	15	25.4	25.4
Quite unacceptable	6	10.2	15	25.4	9	15.3	9	15.3	15.3
Highly unacceptable	4	6.8	11	18.6	12	20.3	3	5.1	5.1
Completely unacceptable	4	6.8	6	10.2	2	3.4	3	5.1	5.1
No response	0	0.0	0	0.0	0	0.0	0	0. 0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

In Table 5 a cursory look at the data seems to show that the most preferred order is C-V-D as it has the highest frequency of 20 (33.9%) on the completely acceptable level, However a thorough examination shows V-D-C is the most preferred order as it has the lowest score on the aggregate of the unacceptability level which is similar to English ordering. The sequence V-C-D is also preferred since the difference between it and V-D-C at the quite acceptable level is 1. The least preferred sequence, then, is D-C-V where Value is far from the noun.

The ordering of adjectives from the Physical Property (PP), Colour (C) and Value (V) classes is examined and this is represented in Table 6.

6a. Mi -hé màmá **hátáhátá táŋtáŋ yɛ́ŋ́** kò.
1SG –buy cloth light ugly white certain
PP V C
'I bought light ugly white cloth.'

6b. Mi -hé màmá **táŋtáŋ hátáhátá yɛ́ŋ́** kò.
1SG- buy cloth ugly light white certain
V PP C
'I bought a certain ugly light white cloth.'

6c. Mi -hé màmá **yɛ́ŋ́ hátáhátá táŋtáŋ** kò.
1SG-buy cloth white light ugly certain.
C PP V
'I bought a certain white light ugly cloth.'

6d. Mi -hé màmá **yɛ́ŋ́ táŋtáŋ hátáhátá** kò.
1SG-buy cloth white ugly light certain
C V PP
'I bought a certain light white ugly cloth.'

Table 6 shows the analysis of adjectives from the Physical Property (P), Value (V) and Colour (C) groups and their responses.

Table 6: Physical Property (PP), Value (V) and Colour (C) Adjectives

Level of acceptability	**PP-V-C**		**V-PP-C**		**C-PP-V**		**C-V-PP**		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	8	13.6	16	27.1	23	39.0	7	11.9	11.9
Highly acceptable	17	28.8	9	15.3	11	18.6	22	37.3	37.3
Quite acceptable	7	11.9	9	15.3	13	22.0	11	18.6	18.6
Quite unacceptable	10	16.9	18	30.5	7	11.9	8	13.6	13.6
Highly unacceptable	10	16.9	4	6.8	2	3.4	6	10.2	10.2
Completely unacceptable	7	11.9	3	5.1	3	5.1	5	8.5	8.5
No response	0	0.0	0	0.0	0	0.0	0	0.0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

In studying Table 6 on the level of completely acceptable, out of the 59 responses, PP-V-C scored 8 (13.6%), V-PP-C scored 16 (27.1%), C-PP-V scored 23 (39%) and C-V-PP scored 7 (11.9%). On the level of quite acceptable, the scores were PP-V-C 7 (11.9%), V-PP-C 9 (15.3%), C-PP-V 13 (22%) and C-V-PP had 11 (18.6%). It seems that the most preferred order from the respondents is when Colour (C) precedes PP and Value occurs last (C-PP-V) which is similar to Value appearing at the end of the ordering in Kasem.

In Table 7 below, the sequencing of adjectives from the classes of Colour (C) Age (A) and Value (V) is examined.

7a. E -wò àtàdé **yɛ́ŋ mómó fɛ́ɛfɛ́ó** kò.
3SG- wear dress white old beautiful certain
C A V
'S/he wore a white old beautiful dress.'

7b. E -wò àtàdé **mómó yɛ́ŋ fɛ́ɛfɛ́ó** kò.
3SG- wear dress old white beautiful certain
A C V
'S/he wore an old white beautiful dress.'

7c. E -wò àtàdé **mómó fɛ́ɛfɛ́ó yɛ́ŋ** kò.
3SG- wear dress old beautiful white certain
A V C
'S/he wore an old beautiful white dress. '

7d. E -wò àtàdé **fɛ́ɛfɛ́ó mómó yɛ́ŋ** kò.
3SG-wear dress beautiful old white certain
V A C
'S/he wore a beautiful old white dress.'

Table 7: Adjectives from Colour (C) Age (A) and Value (V) Semantic Classes

Level of acceptability	**C-A-V**		**A-C-V**		**A-V-C**		**V-A-C**		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	29	49.2	13	22.0	18	30.5	4	6.8	6.8
Highly acceptable	12	20.3	25	42.4	17	28.8	14	23.7	23.7
Quite acceptable	9	15.3	11	18.6	6	10.2	11	18.6	18.6
Quite unacceptable	4	6.8	4	6.8	13	22.0	17	28.8	28.8
Highly unacceptable	3	5.1	1	1.7	2	3.4	5	8.5	8.5
Completely unacceptable	2	3.4	4	6.8	3	5.1	8	13.6	13.6
No response	0	0.0	1	1.7	0	0.0	0	0.0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

The ordering levels for Colour, Age and Value are shown in Table 7. Table 7 shows the ordering levels as follows: completely unacceptable C-A-V (2), A-C-V (4), A-V-C (3) and V-A-C (8) with C-A-V scoring the least. The

scores on the level of completely acceptable were C-A-V (29), A-C-V (13), A-V-C (18) and V-A-C (4). With the exception of one person not giving any response for A-C-V order there was not much significant difference between C-A-V and A-C-V. It seems that when the adjectives are from the class of Colour, Age and Value, respondents prefer Colour to appear first or second rather than occurring farther from the noun. This is similar to Pokua, Saah and Osam (2007) findings in Akan where Colour and Age are closer to the noun.

Table in 8 indicates the acceptability levels in the sequencing of adjectives from the classes of Physical Property (PP) Age (A) and Colour (C). In (8a-d) the sentences that were ranked are shown.

8a. Mi -nà sàà **bɔ̀dɔ̀ɔ̀ hèè yéŋ́** kò.
1SG –see bed soft new white certain
PP A C
'I saw a soft new bed.'

8b. M i-nà sàà **bɔ̀dɔ̀ɔ̀ yéŋ́ hèè** kò.
1SG-see bed soft white new certain
PP C A
'I saw a soft white new bed.'

8c. Mi -nà sàà **hèè bɔ̀dɔ̀ɔ̀ yéŋ́** kò.
1SG –see bed new soft white certain
A PP C
'I saw a new soft white bed.'

8d.Mi -nà **sàà hèè yéŋ́ bɔ̀dɔ̀ɔ̀** kò.
1SG- see bed new white soft certain
A C PP
'I saw a new white soft bed.'

The adjective classes studied from Dixon's semantic class (1982) and similarly shown in Table 8 were Physical Property (PP), Colour (C) and Age (A). PP-A-C and PP-C-A orderings have the same score of 6 (10.2%) on the level of complete acceptability and on highly unacceptable level much difference is not seen; A-PP-C and A-C-PP orderings have the same score of 5 out of 59 representing (8.5%). 3 out of the 59 respondents did not give their acceptability opinion on the questionnaire that had the sequence of PP-A- C. This reveals that the preferred order when PP, A, C adjectives modify a noun is the A-C-PP order. The A-C-PP order is considered the most preferred as it has the lowest aggregate score on the unacceptability level of 12 and this is the same in Siyase where the Age adjective occurs in first place (Adjei 2007). The second preferred order is A-PP-C sequence.

Table 8: The Ordering of Adjectives from the Semantic Class of Physical Property (PP), Age (A) and Colour (C)

Level of acceptability	PP-A-C		PP-C-A		A-PP-C		A-C-PP		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	6	10.2	6	10.2	22	37.3	14	23.7	23.7
Highly acceptable	15	25.4	14	23.7	9	15.3	18	30.5	30.5
Quite acceptable	13	22.0	22	37.3	13	22.0	15	25.4	25.4
Quite unacceptable	8	13.6	13	22.0	5	8.5	4	6.8	6.8
Highly unacceptable	7	11.9	2	3.4	5	8.5	5	8.5	8.5
Completely unacceptable	7	11.9	2	3.4	5	8.5	3	5.1	5.1
No response	3	5.1	0	0.0	0	0.0	0	0.0	0.0
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

Table 9 below studies of the adjective ordering from Value (V) Age (A) and Physical Property (PP) semantic classes. Sentences in (9a –d) indicate the different orders tested from these classes.

9a. Mi -hé lòò **gbíŋ mómó kèkètèè** kò.
3SG-buy fish dry old hard certain
V A PP
'I bought some dry old hard fish.'

9b. Mi -hé lòò **gbíŋ kèkètèè mómó** kò.
1SG-buy fish dry hard old certain
V PP A
'I bought some dry hard old fish.'

9c. Mi -hé lòò **mómó kèkètèè gbíŋ** ko.
1SG-buy fish old hard dry certain
A PP V
'I bought some old hard dry fish.'

9d. Mi -hé lòò **kèkètèè gbíŋ mómó** kò.
ISG –buy fish hard dry old certain
PP V A
'I bought some hard dry old fish.'

Table 9: Value (V), Age (A) and Physical Property (PP) Adjective Analysis

Level of acceptability	V-A-PP		V-PP-A		A-PP-V		PP-A-V		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	12	20.3	19	32.2	10	16.9	7	11.9	11.9
Highly acceptable	10	16.9	15	25.4	15	25.4	13	22.0	22.0
Quite acceptable	14	23.7	9	15.3	9	15.3	11	18.6	18.6
Quite unacceptable	5	8.5	10	16.9	10	16.9	9	15.3	15.3
Highly unacceptable	10	16.9	3	5.1	6	10.2	11	18.5	18.6
Completely unacceptable	5	8.5	3	5.1	6	10.2	5	8.5	8.5
No response	3	5.1	0	0.0	3	5.1	3	5.1	5.1
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

In Table 9, the ordering V-PP-A and A PP-V sequences have the same scores on the highly acceptable level and quite unacceptable level. V-A –PP and PP-A-V had the same score of 3 (5.1%) on the level of no response. The aggregate total for the orderings are as follows V-A-PP 36 (60.9%), V-PP-A 43 (72.9%), A-PP-V 34 (57.6%) and PP-A-V 31(52.5%). It can be concluded from the total aggregate on the acceptability levels that the most preferred order is V-PP-A. In Ga the Value adjective occurs first unlike in Kasem where it occurs last (Danti 2007).

The Dimension (D) Age (A) and Colour (C) semantic class of adjectives are found in example (10a-d) with their orderings.

10a. Wòlò **hèè bíbìóó díŋ** lɛ́ é -làájé.
book new small black DEF PERF-lost
A D C
'The new small black book is lost.'

10b. Wòlò **hèè díŋ biíbìóó** lɛ́ é -làájé
book new black small DEF PERF- lost.
A C D
'The new black small book is lost.'

10c. Wòlò **bíbìóó díŋ hèè** lɛ́ é -làájé.
book small black new DEF PERF-lost.
D C A

'The small black new book is lost.'

10d. Wòlò **díŋ hèè bíbìóó** lɛ́ é -làájé
book black new small DEF PERF-lost.
C A D
'The black new small book is lost.'

Table 10: Adjectives from the Semantic class of Dimension (D) Age (A) and Colour (C)

Level of acceptability	A-D-C		A-C-D		D-C-A		C-A-D		
	Freq	%	Freq	%	Freq	%	Freq	%	%
Completely acceptable	17	28.8	27	45.8	13	22.0	11	18.6	18.6
Highly acceptable	20	33.9	16	27.1	9	15.3	12	20.3	20.3
Quite acceptable	12	20.3	8	13.6	17	28.8	11	18.6	18.6
Quite unacceptable	9	15.3	7	11.9	13	22.0	4	6.8	6.8
Highly unacceptable	1	1.7	1	1.7	3	5.1	12	20.3	20.3
Completely unacceptable	0	0.0	0	0.0	4	6.8	8	13.6	13.6
No response	0	0.0	0	0.0	0	0.0	1	1.7	1.7
Total	59	100.0	59	100.0	59	100.0	59	100.0	100.0

On completely unacceptable level, the orderings A-D-C and A-C-D had 0, the same score of (0%). D-C-A sequence has 4(6.8%) and C-A-D sequence has 8 (13.6%). 27 out of 59 respondents judged the order of A-C-D completely acceptable representing 45.8%. The second highest of completely acceptable order is the order of A-D-C. D-C-A order had 17 (28.8%) on the quite acceptable level. The difference between the A-D-C and A-C-D orders which is 2 may not be very significant; both orders may be preferred though A-C-D order seems to be most preferred by the respondents in relation to the scores obtained.

4.3 Adjectives from same Semantic Class Plus Another

There is the possibility of employing two adjectives from the same semantic class with another one from another semantic class as modifiers of a noun. This was found in some of the Ga literature read such as Ababio (1975). The permutation with such sequence, results in

three different orders. The questionnaire sampled only two and examined them. The examples in (11a-c) show these.

11a. E -tá gbɛ̀ **lɛ́lɛ́óó kàkàdáŋ́ŋ́ hèè** kò nɔ́.
3SG-sit path narrow long new certain on
D D A
'He is sitting on a narrow long new path.'

11b. E -tá gbɛ̀ **lɛ́lɛ́óó hèè kàkàdáŋ́ŋ́** kò nɔ́.
3SG-sit path narrow new long certain on
D A D
'He is sitting on a narrow new long path.'

11c. E -tá gbɛ̀ **hèè lɛ́lɛ́óó kàkàdáŋ́ŋ́** kò nɔ́.
3SG-sit path new narrow long certain on
A D D
'He is sitting on a new narrow long path.'

Table 11: Two Adjectives from the Dimension (D) and one from the Age (A) Group

Level of acceptability	D-D-A		D-A-D		A-D-D	
	Freq	**%**	**Freq**	**%**	**Freq**	**%**
Completely acceptable	14	23.7	14	23.7	10	16.9
Highly acceptable	13	22.0	8	13.6	16	27.1
Quite acceptable	6	10.2	5	8.5	13	22.0
Quite unacceptable	4	6.8	18	30.5	9	15.3
Highly unacceptable	12	20.3	9	15.3	6	10.2
Completely unacceptable	10	16.9	5	8.5	5	8.5
No response	0	0.0	0	0.0	0	0.0
Total	59	100.0	59	100.0	59	100.0

On the completely acceptable level Table 11 reveals that the scores for the ordering D-D-A and D- A-D were the same 4(23.7%) out of the 59 respondents. The scores were the same also for the ordering D-A-D and A-D-D on the completely unacceptable level 5 (8.5%). Though D-D-A and D-A-D orderings had scores higher than A-D-D order, it is considered that respondents prefer mostly the A-D-D ordering due to the fact that it has highest score on the highly and quite

acceptable levels which made the sum of the aggregate total higher than the other two orderings of D-D-A and D-A-D. It came to light that when two Dimension adjectives are sequenced with another adjective from a different class, often, the shape adjective precedes the size adjective. This preferred order is a mirror image to what Sproat & Shih (1991) proposed but theirs had size before shape. This order was evident from Ga books (Ababio 1975). This occurrence of shape before size was confirmed by the respondents as indicated in Table 11

The illustrations in (12) also show two adjectives from the Dimension (D) class and one from Colour (C).

12a. Nùù **díŋ kpìtíóó tɔ□tr□ɔ́ɔ́** lɛ́ é -bà.
man black short fat DEF PERF-come
C D D
'The black short fat man has come.'

12b. Nùù **kpìtíóó díŋ tɔ□tr□ɔ́ɔ́** lɛ́ é -bà.
man short black fat DEF PERF-come
D C D
'The short dark fat man has come.'

12c. Nùù **tɔ□tr□ɔ́ɔ́ kpìtíóó díŋ** lɛ́ é-bà.
man fat short black DEF PERF-come.
D D C
'The fat short dark man has come.'

Table 12: Analysis of Two Adjectives from the Dimension Class (D) and one from Colour Class (C)

Level of acceptability	C-D-D		D-C-D		D-D-C	
	Freq	%	Freq	%	Freq	%
Completely acceptable	14	23.7	24	40.7	6	10.2
Highly acceptable	17	28.8	14	23.7	19	32.2
Quite acceptable	14	23.7	11	18.6	11	18.6
Quite unacceptable	10	16.9	6	10.2	13	22.0
Highly unacceptable	3	5.1	3	5.1	7	11.9
Completely unacceptable	1	1.7	1	1.7	3	5.1
No response	0	0.0	0	0.0	0	0.0
Total	59	100.0	59	100.0	59	100.0

The ordering of D-C-D and D-D-C had the same score on the quite acceptable level of 11 out of 59 respondents. C-D-D and D-C-D orders scores were the same of 1 representing 1.7% on the completely unacceptable level. The most preferred sequence seems to be D-C-D order, it scored the highest of 24 out of 59 on the completely acceptable level (40.7%) and has the least in terms of summation of aggregate on the unacceptability levels.

4.4 Plural Nouns with Adjectives

In 13 below, plural nouns with the adjectives as modifiers were employed. A few were sampled from the adjective classes to find out if there is any significant difference between plural and singular nouns when they occur with multiple adjectives in terms of their ordering. In Ga there is agreement markers on the adjective when the noun is plural. This means that both the adjective and the noun are marked to show number agreement. These number markers are suffixes which include –*ji , -i* and *-foi* The examples are from the Colour (C) –Dimension (D) and Age (A) groups. In example (13) adjectives from the Dimension and Colour groups were illustrated and in example (14) Dimension (D), Age (A) and Colour (C) adjectives were examined with plural nouns.

13a. Yè -ì **àgbò-ì dí -jì kpiti -bíí**.
woman-PL big -PL black-PL short-PL
D C D
'big dark short women'

13b. Yè -i **kpiti -bíí àgbò -i dí -jì** lɛ́.
woman-PL short-PL big -PL black-PL DEF
D D C
'short big dark women'

13c. Yè -i **dí -jì kpiti-bíí àgbò -i** lɛ́.
woman-PL black-PL short-PL big –PL DEF
C D D
'dark short big women'

In spite of the sequence of D-C-D order having the highest score on the completely acceptable level, C-D-D is the most preferred order. This is as a result of summation of aggregate on the acceptability level

where C-D-D had 52, D-C-D had 33, and D-D-C had 30. It is worth mentioning that when the adjective agrees with the plural noun the preferred order differs. In the singular, the D-C-D order was mostly preferred. In a like manner Ababio (1975) also had shape preceding size when two Dimension adjectives were sequenced alone or with another adjective from another class as was confirmed by the respondents.

Table 13: Two Adjectives from Dimension (D) and one from Colour (C) semantic classes

Level of acceptability	C-D-D		D-C-D		D-D-C	
	Freq	%	Freq	%	Freq	%
Completely acceptable	10	16.9	16	27.1	6	10.2
Highly acceptable	23	39.0	12	20.3	16	27.1
Quite acceptable	19	32.2	9	15.3	8	13.6
Quite unacceptable	3	5.1	5	8.5	9	15.3
Highly unacceptable	3	5.1	14	23.7	4	6.8
Completely unacceptable	1	1.7	3	5.1	16	27.1
No response	0	0.0	0	0.0	0	0.0
Total	59	100.0	59	100.0	59	100.0

The example in (14) indicates adjectives from the Age (A) Dimension (D) and Colour (C) groups.

14a. Àtàdé-i **hè -ì àgbò-ì tsù-jì.**
dress-PL new–PL big -PL red-PL
A D C
'new big red dresses'

14b. Àtàdé -i **àgbò-ì hè -i tsù-jì**.
dress-PL big -PL new-PL red-PL
D A C
'big new red dresses'

14c. Àtàdé -i **tsù-jì àgbò-ì hè-ì**.
dress-PL red-PL big-PL new-PL.
C D A
'red big new dresses'

14d. Àtàdé-i **tsù-jì hè -i àgbò-ì**.
dress-PL red-PL new–PL big -PL
C A D
'red new dresses'

Table 14: Age, Dimension and Colour Adjectives with a Plural Noun

Level of acceptability	A-D-C		D-A-C		C-D-A		C-A-D	
	Freq	%	Freq	%	Freq	%	Freq %	%
Completely acceptable	5	8.5	10	16.9	5	8.5	12 20.3	20.3
Highly acceptable	15	25.4	7	11.9	11	18.6	11 18.6	1 8.6
Quite acceptable	6	10.2	8	13.6	12	20.3	12 20.3	20.3
Quite unacceptable	16	27.1	14	23.7	13	22.0	4 6.8	6.8
Highly unacceptable	3	5.1	13	22.0	8	13.6	9 15.3	15.3
Completely unacceptable	12	20.3	7	11.9	10	16.9	9 15.3	15.3
No response	2	3.4	0	0.0	0	0.0	2 3.4	3.4
Total	59	100.0	59	100.0	59	100.0	59 100.0	100.0

The data reveal the same frequency score for A-D-C and C-D-A orders on the completely acceptable level in Table 14. On the level of highly acceptable, however, A-D-C order scores more than C-D-A order and on the quite acceptable level C-D-A scores twice the score of A-D-C order. A careful examination indicates that the most preferred order is C-A-D because it has the highest score on the completely acceptable level and also scores the highest in terms of total aggregate on the acceptability levels. In example (14a-d), the results confirmed that Colour adjectives were preferred in first or middle position when sequenced with one or two adjectives as attribute of a noun which was seen previously in examples (10) and (13) above. There is no change for the Colour order whether the noun is singular or plural in both cases.

The illustrations in (15) show adjectives from the semantic classes of Age (A), Value (V) and Colour (C).

15a. Màmá-i **hè -i fɛ́ɛ́fɛ́ -jì dí -jì**.
cloth -PL new-PL beautiful –PL black- PL
A V C

'new beautiful black clothes'

15b. Màmá-i **fɛ́ɛ́fɛ́ -jì hè -ì dí -jìì**.
cloth-PL beautiful –PL new-PL black-PL
V A C
'beautiful new black clothes'

15c. Màmá-i **dí -jì fɛ́ɛ́fɛ́ -jì hè -ì.**
cloth-PL black-PL beautiful–PL new-PL
C V A
'black beautiful new clothes'

Table 15: Age, Value and Colour Adjectives

Level of acceptability	A-V-C		V-A-C		C-V-A	
	Freq	%	Freq	%	Freq	%
Completely acceptable	10	16.9	7	11.9	9	15.3
Highly acceptable	13	22.0	9	15.3	11	18.6
Quite acceptable	18	30.5	14	23.7	10	16.9
Quite unacceptable	8	13.6	20	33.9	10	16.9
Highly unacceptable	4	6.8	2	3.4	7	11.9
Completely unacceptable	5	8.5	6	10.2	11	18.6
No response	1	1.7	1	1.7	1	1.7
Total	59	100.0	59	100.0	59	100.0

The score for 'no response' was the same, 1, for all the orders (i.e. 1.7%) as revealed in Table 15. In examining the acceptability levels, the order of A-V-C scored the highest on all the levels, and on the level of unacceptability, it has the least score as well. Respondents seem to prefer the order A-V-C most as compared to V-A-C and C–V-A sequences. This preferred order was different when sequenced with singular noun as seen in Table 5 previously.

5 SUMMARY AND CONCLUSION

The paper examined the sequencing of adjectives in attributive position. A brief investigation of two adjectives in attributive positions was tested. A much more detailed examination was carried on the sequencing of three adjectives as attributes of a noun.

Two adjectives from the semantic class of Dimension and Value were sequenced and this indicated that respondents most preferred order is Dimension before Value. Age adjectives were preferred to precede Dimension adjectives when the two semantic types were sequenced. Furthermore an examination on sequencing of three adjectives from the semantic classes of Physical Property, Dimension and Age was carried out. It was deduced from the scores obtained that respondents preferred most the order of Age followed by Dimension and then Physical Property in last place. It came to light also that the most preferred order was Colour, Dimension and Physical Property after the examination of Dimension, Colour and Physical Property adjectives in sequence. The most preferred order was Value, Dimension and Colour where the sequencing of Colour, Dimension and Value was involved. In sequencing of adjectives from the semantic classes of Physical Property, Value and Colour and the most preferred order was considered to be Colour precedes Physical Property and Value. The order, Colour, Age and Value were found to be the most preferred when these three were sequenced. Furthermore there was sequencing of three adjectives from Physical Property, Colour and Age group and from the scores obtained, the most preferred order was Physical Property preceded by Coloour and Age in first position (A-C-PP). Scores obtained brought to light that respondents most preferred Value followed by Physical Property and Age when these three were involved in a sequence. In examining the sequencing of Dimension, Age and Colour from the adjective semantic classes most respondents preferred the order in which Age appeared first, followed by Colour and then Dimension. The paper further investigated two adjectives from the same semantic class in addition to another adjective from another semantic class. Two Dimension adjectives were sequenced with one adjective from the Age class. The scores indicated that the respondents preferred Age preceded by the two Dimension adjectives. Two Dimension adjectives with one Colour adjective in multiple position were investigated and the scores obtained from the data showed that respondents preferred the Colour adjective between the two Dimension adjectives. A further investigation was carried out on adjectives that occur with plural nouns. In Ga, adjectives normally show agreement with the noun in number. In the study it came to light that when two adjectives from the same Dimension class and one Colour type were analysed, there was a change in result. That is in the singular the most preferred order is Dimension, Colour then Dimension again in last position but in the sequence with a plural noun, the order changed to be

Colour preceded by the two Dimension adjectives. The Age, Dimension and Colour semantic classes of adjectives sequenced with plural nouns show that respondents preferred Dimension occurring last, which is preceded by Age which is also preceded by Colour (i.e. C-A-D) The most preferred order revealed from the scores with the plural nouns is Age, Value and Colour when they co-occur.

From the data I argue that the use of multiple adjectives in Ga though not restricted has a preferred order unlike in Luganda where the order is flexible and is based on pragmatic reasons(Abudonia 2014). Furthermore, it was evident that Age adjectives occur closer to the noun when arranged with other adjectives, Value adjectives hardly occur in the middle when sequenced with two other adjectives whereas Colour hardly occur in the middle except when sequenced with two Dimension adjectives with a plural noun. Dimension adjectives seem to appear to take a middle position or last position in most instances. It also came to light that Colour adjectives most often occur far from the noun. It can be said to a large extent that Age and Colour adjectives have similar occurrence in relation to Akan and Siyase. The study has shown that Ga may not have a strict order, but it has an acceptable order for multiple adjectives. The paper has shown that multiple use of adjectives exist in Ga, however I believe it can be investigated further by examining all the semantic classes for a general preferable order to be established if possible.

6 ABBREVIATIONS

DEF definite article
PERF perfect marker
PL plural
1SG first person singular pronoun
3SG third person singular pronoun

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