

EXTRACTION AND DELETION IN PALESTINIAN ARABIC COMPARATIVES*

Yaron McNabb & Christopher Kennedy
University of Chicago

1. Introduction

The grammar of comparison reveals a diverse cross-linguistic landscape in terms of the different structures used for the expression of comparison. A cross-linguistic study of comparative structure, therefore, helps to provide a clear picture of the diversity in the expression of comparison as well as shed light on the internal structure of the syntactic constituents that comparative structures are composed of in each language studied.

The focus of this study is the structure of comparative constructions in Palestinian Arabic. In this dialect, comparative clauses that are headed by the complementizer *ma* ‘that’ exhibit a difference in the distribution of quality and quantity adjectives. We explain these distributional differences by proposing distinct internal structures for the constituents that include quantity and quality adjectives.

We assume that *ma*-comparatives involve *wh*-movement of a comparative element (DegP) to the Spec,CP of the standard clause. The *wh*-movement operation targets positions of quantity and quality attributive or predicative adjectives, specifically DegP projections. We also assume that the DegP (the phrase that contains the adjective) moves out of the NP to a functional projection in the DP in order to check agreement features, following Fassi Fehri (1999).

We propose that a configurational difference between quantity and quality adjectives leads to their distributional difference in comparatives: Quality adjectives always move out of the NP, while quantity adjectives never do. The interaction of the DP-internal movement of some adjectives and the *wh*-movement in comparatives results in ungrammatical structures in comparatives with quality adjectives. DegPs containing quality adjectives discharge a [+wh] feature to the *d* head as they move successive-cyclically to their final position at Spec,CP of the standard clause. Since there is no lexical entry corresponding to a *d* head with a [+wh] feature, the resulting structure violates the principle of FULL INTERPRETATION (Chomsky 1995, defined in Section 4.2.). DegPs containing quantity adjective, on the other hand, do not move outside of the NP but rather out of the DP, and thus do not discharge a [+wh] feature to the *d* head, avoiding the creation of a structure that would violate PF. That said, the comparative derivation involves a local (clause-bounded), optional deletion process, which can prevent the spell-out of ungrammatical structures; that is, deletion prevents PF violations.

The paper is structured as follows. We first present the distribution of quantity and quality of adjectives and follow with additional information about the structure of comparatives in Palestinian Arabic. In Section 3, we summarize the analysis of the internal structure of the Arabic DP we are adopting, and in Section 4, we propose an analysis of the difference between

* We would like to thank our consultants for the Palestinian Arabic data, Mohammad Abdeljaber, Dalia Hatuqa, and Ala Rasoul, all of whom are native speakers of the language from the Ramallah area in the West Bank, Palestine. This paper has benefited from discussions with Thomas Grano, Jason Merchant, Osamu Sawada, and audiences at the University of Chicago, NACAL 37, and ALS 23. This paper is based in part upon work supported by the National Science Foundation under Grant No. BCS-0620247.

quantity and quality comparatives in Palestinian in terms of a configurational difference between the types of comparatives and how they affect the grammaticality of different comparative constructions. We conclude with the implications of our analysis on the internal structure of the Arabic DP as well as our understanding of the syntax-Phonological Form (PF) interface.

2. Comparatives in Palestinian Arabic

Palestinian Arabic utilizes two complementizers in comparative constructions: *illi* and *ma*. While *ma* requires a gap in the relativized position, as shown in (1a), *illi* requires a resumptive pronoun, as illustrated by (1b).¹

- (1) a. *saʕed ʔakal baskut ʔaktar mi-ma ʔaklat (*=o) muna*
 Saed ate.3SM cookies more from-**that** ate.3SF (=it.3SM) muna
 ‘Saed ate more cookies than Muna ate.’
- b. *saʕed ʔakal baskut ʔaktar min illi ʔaklat *(=o) muna*
 Saed ate.3SM cookies more from **that** ate.3SF (=it.3SM) muna
 ‘Saed ate more cookies than Muna ate.’

The sentence in (1a) can be paraphrased as in (2a), in which what is compared is the number of cookies eaten. The sentence in (1b) can be paraphrased as in (2b), in which what is compared is whatever was eaten.

- (2) a. Saed ate more cookies than Muna ate.
 b. Saed ate more cookies than what Muna ate.

Another difference between the two complementizers is that *ma* comparatives also allow subcomparatison, i.e., comparisons of a degree of two different objects or properties, as in (3), where the quantity of bananas is compared to the quantity of cookies (underlined in the examples). Subcomparatives are ungrammatical in *illi* comparatives, which is expected if subcomparatives require that only a degree (and not an individual) be involved in the comparison.²

- (3) a. *saʕed ʔakal baskut ʔaktar mi-ma ʔaklat muna moz*
 Saed ate.3SM cookies more from-**that** ate.3SF muna bananas
 ‘Saed ate more cookies than Muna ate bananas.’
- b. **saʕed ʔakal baskut ʔaktar min illi ʔaklat muna moz*

¹ See Shlonsky (2002) for convincing arguments for the claim that *ma* is a complementizer. Shlonsky only discusses *ma*’s distribution as a complementizer in free relatives and constituent questions.

² Egyptian Arabic lacks the use of *ma* in comparative constructions and does not have subcomparatives. This observation provides additional evidence to the claim that *ma* targets a degree term and not an individual. The subcomparative construction in (3) can only be expressed in Egyptian Arabic by a direct comparison, along the lined of ‘the number of cookies that Saed ate is greater than the number of bananas that Muna ate.’ (Usama Soltan p.c.)

Saed ate.3SM cookies more from **that** ate.3SF muna bananas
 ‘Saed ate more cookies than Muna ate bananas.’

A third notable difference between the two complementizers is that *ma* comparatives are subject to island constraints (Ross 1967), while *illi* comparatives are not, as shown in (4), which is an example of an adjunct island. Island violations are taken to be a diagnostic for movement, and therefore *ma* may have a structure that involves movement, while *illi* does not.

- (4) a. **musa kasr sababiik ?aktar mi-ma tafadza?at*
 Musa broke.3SM windows more from-**that** surprised.2SM
la?annu kasrat(=o) nuha
 because broke.3SF(=it) nuha
 *‘Musa broke more windows than you were surprised because Nuha did.’
- b. *musa kasr sababiik ?aktar min illi tafadza?at*
 Musa broke.3SM windows more from **that** surprised.2SM
la?annu kasrat(=o) nuha*
 because broke.3SF(=it) nuha
 *‘Musa broke more windows than you were surprised because Nuha did.’

In the remainder of the paper we will focus on the complementizer *ma*, as it exhibits a complex pattern when it occurs in comparatives that involve comparison of quality and quantity.

2.1 Quality and quantity adjectives in *ma* comparatives

The examples in (5) show that in comparisons of quantity, non-embedded standard clauses may include overt nominal material with the same descriptive content as the target of comparison, while in embedded clauses, only the non-identical standard can occur. And in both contexts, the whole constituent (*many cookies/bananas*) cannot be spelled out. (As a presentational aid, the grammatical judgements for the use of an identical NP, a different NP, or no NP at all in the standard clause is given as NP1, NP2, and Ø, respectively, preceding each example sentence on the right.)

- (5) a. Comparison of quantity (non-embedded): NP1 / NP2 / Ø
sa?ed ?akal baskut ?aktar mi-ma ?aklat muna
 Saed ate.3SM cookies more from-that ate.3SF muna
 {*baskut* / *moz* / Ø}
 {cookies / bananas / Ø}
 ‘Saed ate more cookies than Muna ate (cookies / bananas).’
- b. Comparison of quantity (embedded): *NP1 / NP2 / *Ø
sa?ed ?akal baskut ?aktar mi-ma bi?ku (innu) ?aklat
 Saed ate.3SM cookies more from-that said.3PL (that) ate.3SF
*muna { *baskut / moz / *Ø }*

Muna { *cookies / bananas / }

‘Saed ate more cookies than they said (that) Muna ate (cookies / bananas).’

In attributive and predicative comparisons of quality (6), no part of the constituent can be spelled out, either in non-embedded or embedded contexts.

- (6) a. Comparison of quality (attributive, non-embedded): *NP1 / *NP2 / Ø
samer ištara sayara ʔakbar mi-ma ištarat nuha
 Samer bought.3SM car bigger from-that bought.3FM Nuha
 (*sayara kbiira / fan kbiir)
 (*car.F big.F / van.M big.M)
 ‘Samer bought a bigger car than Nuha bought (*big) (*car/van).’
- b. Comparison of quality (attributive, embedded): *NP1 / *NP2 / *Ø
 **samer ištara sayara ʔakbar mi-ma biħku (innu)*
 Samer bought.3SM car bigger from-that said.3PL (that)
ištarat nuha (sayarakbiira / fan kbiir)
 bought.3FM Nuha (car.F big.F / van.M big.M)
 ‘Samer bought a bigger car than they said (that) Nuha bought (*big) (*car/van).’
- c. Comparison of quality (predicative, non-embedded): *AP / Ø
*musa kan ʔaTwal mi-ma daud kan (*Tawil)*
 Musa was.3SM taller from-that Daud was.3SM (*tall.SM)
 ‘Musa was taller than Daud was (*tall).’
- d. Comparison of quality (predicative, embedded): *AP / Ø
musa kan ʔaTwal mi-ma biħku (innu) daud kan
 Musa was.3SM taller from-that said.3PL (that) Daud was.3SM
 (*Tawil)
 (*tall.SM)
 ‘Musa was taller than they said (that) Daud was (*tall).’

The distribution of *ma* in comparisons of quality and quantity as exemplified by (5-6) raises the following question we will address in this study: Why do quality and quantity comparatives differ in the material they allow to spell out (an identical NP, a different NP or nothing)? Before we propose an account, we present the internal structure of comparatives and the Arabic DP we are assuming.

3. Background

3.1 The structure of comparatives in Palestinian Arabic

The comparative adjective in Palestinian Arabic is formed by the pattern ʔaCCaC , where the Cs stands for the trilateral root consonants. Unlike Arabic adjectives, which agree with the noun they modify in definiteness, gender, and number, the comparative form is invariable.

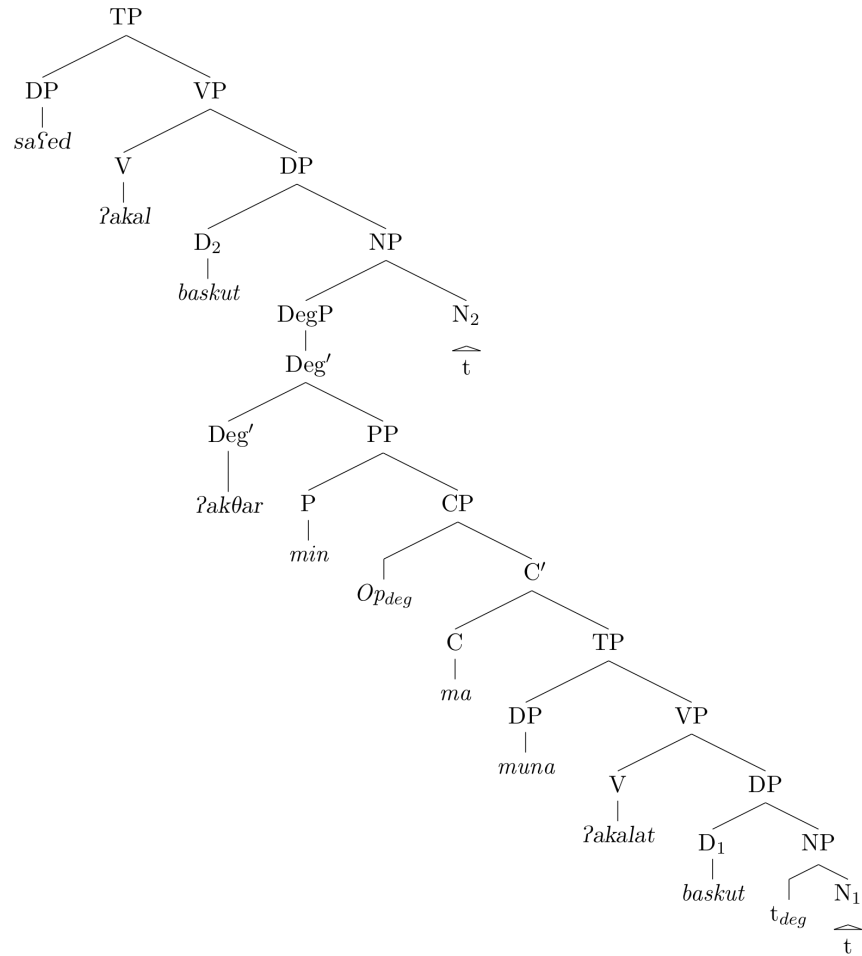
- (7) Root: $k b r$
 Comparative: ʔakbar ‘bigger’
 Standard/Adjective: $kbiir$ ‘big’

When the comparative pattern is not used, the target of comparison is followed by the comparative marker ʔaktar ‘more’, which is itself in the comparative form and derived from $ktiir$ ‘a lot, many’

- (8) mafɣuul ʔaktar / $*\text{ʔaktar mafɣuul}$
 busy more *more busy.M
 ‘busier, busiest’

The structure of Palestinian comparatives includes the introduction of the STANDARD of comparison by a standard clause (a CP) headed by complementizer, either *illi* or *ma*. In Arabic, the standard clause is selected for by the preposition *min* ‘from’. (The preposition and complementizer *min ma* are spelled out as *mi-ma*.) Comparative constructions have been shown to have properties characteristic of *wh*-constructions and consequently are argued to involve *wh*-movement of the degree term, categorically a DegP, combined with a mechanism for deleting material (Ross 1967, Bresnan 1973, Chomsky 1977, *inter alia*). The *wh*-movement of the degree term is triggered by Agree (following Chomsky 1995) between it and the degree operator at Spec,CP, labelled in (9) as Op_{deg} .

(9)



3.2 The internal structure of the Arabic DP

The array of grammatical constructions in *ma*-comparatives, as presented in Section 2, suggests that quantity and quality comparatives in Palestinian behave differently in relation to movement: Quantity comparatives seem to involve movement with optional deletion, while quality comparatives seem to bar movement, and optional deletion serves to remedy otherwise ungrammatical constructions. In this section, we adopt Fassi Fehri's (1999) analysis of the internal structure of the Arabic DP, and show that positing that a configurational difference between quality and quantity adjectives with relation to the noun they modify explains the difference between these types of adjectives on grammatical constructions in comparative constructions.

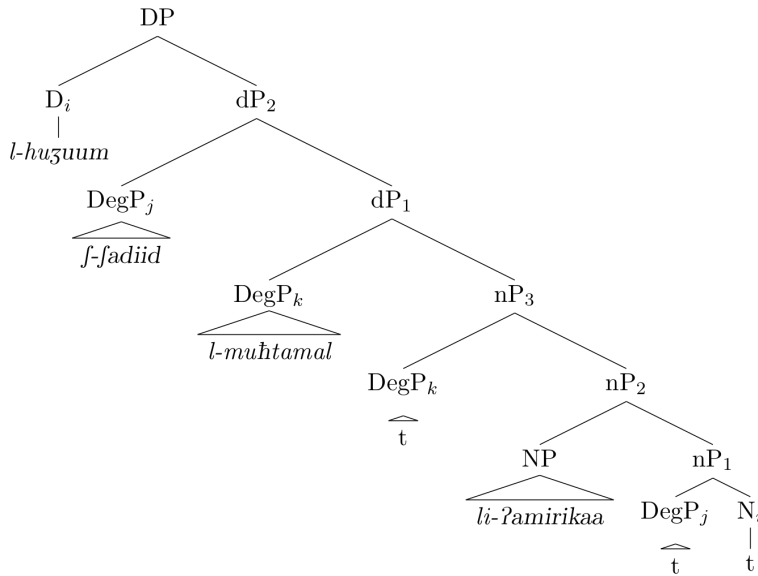
Fassi Fehri (1999) argues for an underlying DP structure parallel with that of the English DP, motivating his analysis with the observation that serial adjectives in the Modern Standard Arabic (MSA) DP, as in (10), display a mirror image of the order of adjectives in English.

- (10) *l-huʕuum-u* *l-ʔamiriikiyy-u* *l-waħʕijj-u* *l-muħtamal-u*
the-attack-NOM the-american-NOM the-savage-NOM the-probable-NOM
‘The probable savage American attack’

Fassi Fehri argues that the adjectives move to functional projections located between the D head and the NP in order to check for definiteness, case (in MSA), Number and Gender.³ The adjectives move in a nesting manner: The highest AP moves first, and the next one below it moves to a position above it, and so forth, as illustrated in (11b).

- (11) a. *l-huɣuum-u* *f-fadiid-u* *l-muħtamal-u* *li-ʔamiriikaa*
 the-attack-NOM the-violent-NOM the-probable-NOM of-America
 ‘The probable violent attack of the US.’

b.



The surface order of elements in the DP is therefore achieved by movement of the N(s) and the AP(s), driven by feature valuing. We will show in the next section how the internal structure of DPs and the structure of comparatives interact in the case of quality and quantity adjectives.

4. Analysis

We begin our explanation of the patterns observed in section 2 with standard assumptions about movement relations in comparatives. In comparatives, an Agree relation is established between a degree operator Op_{deg} located at Spec,CP and a degree term in the NP. The degree term carries a [+wh] feature it needs to discharge at Spec,CP of the comparative (standard) clause (Ross 1967, Chomsky 1977, 1995; Klein 1980, von Stechow 1984, Heim 1985, Larson 1988, Kennedy 1999, Kennedy & Merchant 2000). As the DegP successive-cyclically moves via Spec,dP to Spec,CP headed by *ma*, it discharges an uninterpretable [+wh] to the *d* head (cf. Kennedy & Merchant 2000).

³ See Mohammad 1988, Fassi Fehri 1999, and Benmamoun 2000 for arguments for N-to-D movement and further details on the internal structure of DPs in Semitic. Also, see Cinque 1996 for a phrasal movement account and Shlonsky 2004 for a movement and incorporation account.

In what follows, we will argue in addition that comparative derivation in PA involves a local (clause-bounded), optional deletion process that prevents the spell-out of ungrammatical structures, obviating PF violations. The differences between quantity and quality comparatives follow from the interaction of movement and deletion operations: in the former, movement is followed by optional deletion of nominal material, and in the latter, movement is impossible because of the DP internal structure. However, such structures can be rescued by nominal deletion (Kennedy & Merchant 2000). And in predicative quality comparatives, movement of the whole DegP is possible, and no deletion is necessary, as there is no nominal material that needs to be deleted.

In order to better understand the nature of the *wh* movement in comparatives in Palestinian Arabic, we will first consider the structure of degree questions, which overtly display *wh* movement. We will then flesh out the internal structure of the Arabic DP with DegPs to show where the difference between quality and quantity degree terms lies.

4.1 Degree questions in Palestinian

The structure of degree questions, such as *how much* and *how many* in Palestinian can shed light on the internal structure of the targeted DP in comparatives, given the shared *wh* features of *wh*-questions and comparative constructions and the overt use of *wh* words in this type of questions.

The [+wh] DP *kam sayara* ‘how many cars’ must be spelled out as one constituent in degree questions, as shown in (12); that is, the whole DP must be pied piped to Spec,CP.

- (12)a. *kam sayara iftararat dalja*
 how.many car.SF bought.3SF Dalia
 ‘How many cars did Dalia buy?’
- b. **kam iftararat dalja sayara*
 how.many bought.3SF Dalia car.SF
 *‘How many did Dalia buy cars?’

The quantity DegP in a comparative construction is similar to *kam* ‘how many’ in (12), as it is the structure that carries the *wh*-feature. But while the whole *wh*-phrase *kam sayara* ‘how many cars’ is spelled out and thus clearly exhibits the pied piping, the degree item in the standard clause in comparatives is necessarily null. Therefore, we cannot tell whether the whole DegP overtly moves outside of the DP that contains it.

There is no Arabic equivalent of English *how big* or, for that matter, a *how ADJECTIVE* type of construction in Arabic.⁴ The only grammatical construction for quality degree questions in Palestinian is translated as ‘what is the height’, as shown in (13).

⁴ The construction *how ADJECTIVE* does exist in Arabic, but it is not used to form questions but rather to form exclamatives: expressions of surprise, wonderment, or admiration. The question word used is *?adef* or *qadef*. The construction can either include the standard adjective form (i) or the comparative form (ii), and both are akin to the Modern Standard form as in (iii).

(i) *?adef / qadef kbiir dar-ak*
 how big.SM house.SM=2SM

- (13)a. *{*kam* / *ʔadeʃ*} *Tawil* *musa?*
 How.much tall.MS *musa*
 ‘How tall is *musa*?’
- b. {*kam* / *ʔadeʃ*} *Tuul* *musa ?*
 How.much height *musa*
 ‘How tall is *Musa*?’

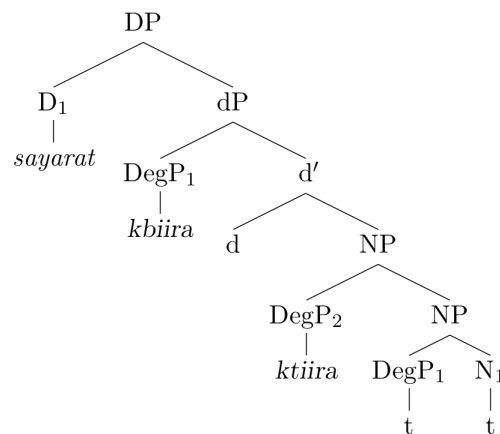
The short survey of degree questions in Palestinian Arabic reveals that quality and quantity adjectives behave differently, similarly to comparative constructions. While in quantity degree questions the whole DegP phrase must be pied piped, the quantity degree terms cannot be moved and therefore only the nominal form (e.g. *height* instead of *tall*) can be used. In comparative constructions, DegPs cannot overtly move, but may move at LF.

4.2 The internal structure of the Palestinian DP with a comparative DegP

Recall that Arabic displays a mirror image of the order of adjectives in serial adjective constructions. Quantity adjectives are last in serial adjective constructions in Arabic, as shown in (15a). We take the position of the quantity adjective *k̤iira* in (15a) to be evidence for a configurational difference between the quality (*k̤biira* ‘big’) and quantity (*k̤iira* ‘many’) adjective: the quantity adjective *k̤iira* ‘many’ doesn’t move outside of the NP, while the quality adjective *k̤biira* ‘big’ does, as shown in (15b).

- (15)a. *sayarat* *k̤biira* *k̤iira*
 cars.F big.SF many.SF
 ‘Many big cars’

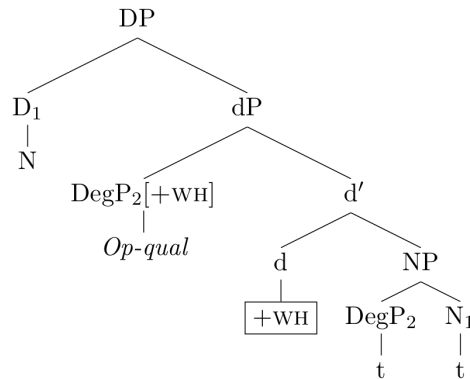
b.



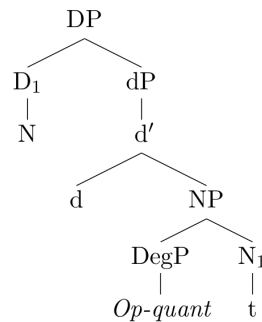
-
- (ii) *ʔadeʃ* / *qadeʃ* *ʔakbar* *dar-ak*
 how bigger.SM house.SM=2SM
- (iii) *ma* *ʔakbar-an* *bajt-u-ka*
 what bigger-ACC house-NOM=2SM
 (i-iii) = ‘Is your house big!’

The internal structure of the Arabic DP, as given in (15b), is formed as follows. The quality DegP *kbiira* ‘big’ moves to Spec,dP in order to value agreement features. Since this DegP has a [+wh], it discharges it to the *d* head as it moves to Spec,dP, and in fact discharges this feature to every head with which it is in Spec-Head relation as it moves successive-cyclically. See (16a) for an illustration. Quantity adjectives, on the other hand, do not move to a *d* head, but rather stay in the NP, and thus the *d* head does not receive the [+wh] feature, as shown in (16b).

(16)a. The internal structure of the DP in quality comparatives:



b. The internal structure of the DP in quantity comparatives:



The analysis we present here has consequences in light of the principle of FULL INTERPRETATION (Chomsky 1995), which states that features that are only relevant to the syntactic component must be checked and deleted before the derivation is submitted to other levels of representation, namely Phonological Form (PF) or Logical Form (LF), otherwise the derivation will crash.

Going back to the Arabic DP internal structure, the quality DegP moves to Spec,dP, discharging a [+wh] feature. This feature is a consequence of *wh*-movement of the DegP, but does not correspond to a lexical entry corresponding to a [+wh] *d* head when the structure is submitted to PF, leading the derivation to crash. This analysis explains why quality adjectives cannot occur in the standard clause of a comparative sentence. The only way to have such a structure is to delete the constituent that contains the offending *d*, namely the whole DP, as the sentence in (6a), given again below, shows.

- (6) a. Comparison of quality (attributive, non-embedded): *NP1 / *NP2 / Ø
samer iftara sayara ʔakbar mi-ma iftarat nuha
 Samer bought.3SM car bigger from-that bought.3FM Nuha
 (*sayara kbiira / fan kbiir)
 (*car.F big.F / van.M big.M)
 ‘Samer bought a bigger car than Nuha bought (*big) (*car/van).’
- b. Comparison of quality (attributive, embedded): *NP1 / *NP2 / *Ø
 **samer iftara sayara ʔakbar mi-ma biḥku (innu)*
 Samer bought.3SM car bigger from-that said.3PL (that)
iftarat nuha (sayarakbiira / fan kbiir)
 bought.3FM Nuha (car.F big.F / van.M big.M)
 ‘Samer bought a bigger car than they said (that) Nuha bought (*big) (*car/van).’

Recall also that the offending structure cannot be rescued in embedding contexts, as in (6b) above. We take this to indicate that the deletion process that is available in (6a) is clause-bounded in (6b) and thus blocked. We leave the questions regarding the licensing and domain of the deletion process to future research.

Quantity DegPs in comparatives, on the other hand, do not lead to a *d* head with a [+wh] feature and thus no PF violation occurs, because the quality DegP does not leave the NP. Therefore, comparatives with quantity DegPs and a fully spelled-out DP in the standard clause are grammatical, as (5a) shows. As with comparatives with quality DegPs, deletion is clause-bounded, as shown in (5b).

- (5) a. Comparison of quantity (non-embedded): NP1 / NP2 / Ø
saʔed ʔakal baskut ʔaktar mi-ma ʔaklat muna
 Saed ate.3SM cookies more from-that ate.3SF muna
 {*baskut* / *moz* / Ø}
 {cookies / bananas / Ø}
 ‘Saed ate more cookies than Muna ate (cookies / bananas).’
- b. Comparison of quantity (embedded): *NP1 / NP2 / *Ø
saʔed ʔakal baskut ʔaktar mi-ma biḥku (innu) ʔaklat
 Saed ate.3SM cookies more from-that said.3PL (that) ate.3SF
*muna { *baskut / moz / *Ø }*
 Muna { *cookies / bananas / }
 ‘Saed ate more cookies than they said (that) Muna ate (cookies / bananas).’

4.3 Broader implications of Full Interpretation and salvation by deletion

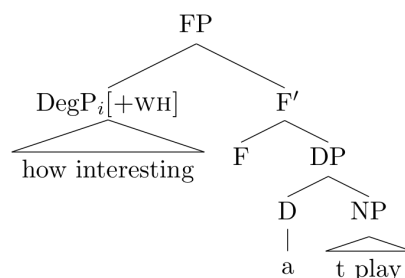
Our account is akin to Kennedy & Merchant’s (2000) analysis for cases of Left Branch Condition (Ross 1967) and the remedying effect of deletion. Kennedy & Merchant show that comparatives with attributive adjectives exhibit Left Branch Condition (LBC) effects, which are solved by deleting the constituent that contains the attributive adjective. The sentence in (17a) is ungrammatical because there is an extraction of a degree element from a left adjoined position in

the DP *a play*, namely *d-interesting*. The sentence becomes grammatical if the whole DP that contains the extraction position is deleted (17b) or any other larger constituent that contains the extraction locus, such as a VP (17c), or a CP (17d). (Angled brackets delineate deleted structures.)

- (17) a. *Margaret Attwood wrote a more interesting novel than Brett Neveu wrote a play.
 b. Margaret Attwood wrote a more interesting novel than Brett Neveu wrote < [DP a play] >.
 c. Margaret Attwood wrote a more interesting novel than Brett Neveu did < [VP write a play] >.
 d. Margaret Attwood wrote a more interesting novel than I thought < [CP that Brett Neveu wrote a play] >.

The ungrammaticality of (17a) is explained by the movement of the DegP *how interesting* from outside the DP via a functional projection FP (see structure in 18). The DegP discharges a [+wh] feature to the head *F*, but since there is no [+wh] lexical item to insert at PF, the structure violated Full Interpretation and causes the derivation to crash. A comparative construction involving attributive constructions is grammatical when a constituent containing the FP is deleted.

(18)



In Palestinian, quality DegPs cannot move from outside the DP. Deletion of the DP containing the offending DegP renders the comparative grammatical, as well as deleting larger structures containing the DegP, as (19) shows, where the DP is contained in the deleted CP.

- (19) *sasmer iftara famsiya ?akbar mi-ma hisibt* < ... DP ... >
 Samer bought.3SM umbrella bigger from-that thought.1s
 ‘Samer bought a bigger umbrella than I thought < ... DP ... >’

Deletion plays an important role in LBC constructions as well as the cases of quality comparatives in Palestinian Arabic we have discussed here. The ungrammaticality of all of these structures can be explained in terms of PF violations, which can be obviated by deleting the offending sub-structures.

5. Conclusion

Quantity and quality adjectives have a different distribution in comparative constructions in Palestinian Arabic. The different distribution can be explained in configurational terms: The internal structure of the DP prohibits the movement of quality adjectives but not of quantity adjectives. Movement of the quality adjectives within the DP and from inside the DP creates structures whose features do not correspond to lexical items in Palestinian, i.e., it incurs a PF violation. Deletion that removes the offending structure renders that comparative structure grammatical.

One implication of our analysis is that quality and quantity adjectives in Arabic interact differently with the noun they modify. While quality adjectives move out of the NP to functional projections in the DP, quality adjectives stay in the NP. This observation is the first step in a much-needed investigation of the morpho-syntactic and semantic differences between the two types of adjectives.

In addition, this study contributes to the study of the internal structure of the Arabic DP. The Arabic – and, in general, Semitic – DP involve complex structures such as the Construct State and intricate agreement relations between the head noun and its modifiers. In this study, we draw attention to the complexity of the configurational relations between the noun and adjective(s).

Finally, the interplay between syntactic operations, namely movement, and their effect on the PF output, following the principle of Full Interpretation or obviation thereof by deletion, lend further support to the claim that some violations that have been considered purely syntactic (e.g., Left Branch Conditions) are in fact PF violations that can be remedied by deletion.

References

- Abney, Saul. 1987. *The English Noun Phrase in its sentential aspect*. PhD thesis, MIT.
- Benmamoun, Elabbas. 2000. *The feature structure of functional categories: a Comparative study of Arabic dialects*. Oxford: Oxford University Press.
- Bresnan, Joan. 1973. The Syntax of the Comparative Clause Construction in English. *Linguistic Inquiry* 4: 275–343.
- Chomsky, Noam. 1977. On Wh-Movement. In P. Culicover, T. Wasow and A. Akmajian (eds.) *Formal Syntax*. New York: Academic Press.
- Chung, Sandra. 1994. Wh-Agreement and "Referentiality" in Chamorro. *Linguistic Inquiry* 25: 1-44.
- Cinque, Giglielmo. 1996. The 'antisymmetric' program: theoretical and typological implications. *Journal of Linguistics* 32:447–464.
- Corver, Norbert. 1990. *The Syntax of Left Branch Constructions*. Unpublished Ph.D. dissertation, Tilburg University.
- Chomsky, Noam. 1977. On WH-Movement. In Peter Culicover, Thomas Wasow, and Adrian Akmajian, (eds.) *Formal Syntax*. New York: Academic Press, pp. xx–yy.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge: MIT Press.
- Fassi Fehri, Abdelkader. 1999. Arabic Modifying Adjectives and DP Structures. *Studia Linguistics* 53(2): 105-154.
- Giorgi, Alessandra and Giuseppe Longobardi. 1991. *The Syntax of Noun Phrases*. Cambridge University Press, Cambridge.

- Heim, Irene. 1985. "Notes on Comparatives and Related Matters," Ms, University of Texas, Austin.
- Heim, Irene. 2000. "Degree Operators and Scope," in *SALT X*, Cornell University, 40–64
- Heim, Irene: 2001, 'Degree Operators and Scope', in C. Féry and W. Sternefeld (eds.) *Audiatur Vox Sapientiae*, Akademie-Verlag, Berlin, 214-239.
- Kennedy, Chris. 1999. *Projecting the Adjective: The Syntax and Semantics of Gradability and Comparison*. UC Santa Cruz Ph.D. Thesis (published by Garland Press).
- Kennedy, Christopher, and Jason Merchant. 2000. Attributive comparative deletion, in *NLLT* 18: 89-146.
- Klein, Ewan. 1980. 'A Semantics for Positive and Comparative Adjectives', *Linguistics and Philosophy* 4, 1-45.
- Larson, Richard. K. 1988. Scope and comparatives. *Linguistics and Philosophy* 11:1–26.
- Mohammad, Mohammad. 1988. On the parallelism between IP and DP. *Proceedings of the west coast conference on formal linguistics (WCCFL)* VII. ed. by Hagit Borer. 241-254. Standord: CSLI.
- Rullmann, Hotze. 1995, Maximality in the Semantics of Wh-Constructions, UMass Amherst Ph.D. thesis.
- Pinkham, Jessie. 1985. The Fornution of Comparative Clauses in French and English. Garland, New York. (Ph.D. dissertation, Harvard University, 1982.
- Ross, J. R. 1967. *Constraints on Variables in Syntax*. PhD thesis, Massachusetts Institute of Technology. Published as Ross 1986.
- Shlonsky, Ur. 2004. "The form of Semitic noun phrases". *Lingua* 114:1465–1526.
- Shlonsky, Ur. 2002. "Constituent questions in Palestinian Arabic". In Ouhalla Jamal and Ur Shlonsky (eds.), *Themes in Arabic and Hebrew Syntax*. Kluwer Academic Publishers, Dordrecht, 137-160.
- Sportiche, Dominique. 1992. Clitic constructions. Ms., University of California, Los Angeles.
- von Stechow, Arnim. 1984. "Comparing Semantic Theories of Comparison". *Journal of Semantics* 3:1–77.
- Webelhuth, Gert. 1992. *Principles and Parameters of Syntactic Saturation*. Oxford University Press.

Abstract:

Quantity and quality adjectives have a different distribution in comparative constructions that are headed by *ma* 'that' in Palestinian Arabic. The different distribution can be explained in configurational terms: The internal structure of the DP prohibits the movement of quality adjectives but not of quantity adjectives. Movement of the quality adjectives within the DP in order to check agreement features (Chomsky 1995, Fassi Fehri 1999) and from the DP to Spec,CP (Ross 1967, Bresnan 1973, Chomsky 1977, *inter alia*) creates structures whose features do not correspond to lexical items in Palestinian, i.e., it incurs a PF violation. Deletion that removes the offending structure renders that comparative structure grammatical (Kennedy & Merchant 2000).

In this study, we draw attention to the complexity of the configurational relations between the noun and adjective(s), thereby contributing to the study of the internal structure of the Arabic DP. In addition, our analysis lends support to the claim that some structural violations that have

been considered purely syntactic (e.g. Left Branch Conditions) are in fact PF violations that can be remedied by deletion.