Multiple facets of constructional Arabic Gender and 'functional universalism' in the DP*

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Arabic Gender comes in many flavours, expressing many 'unorthodox' meanings, more productively so than the so-called 'natural' (or 'cultural') sex (and/or animacy), and it is not confined to a particular 'lexical' category (namely *n*), or being an *intrinsic* nominal property (as in e.g. Corbett 1991, Dahl 2000). It is rather *constructional*, or built in syntax, distributing and receiving polysemous interpretations at various syntactic layers of the DP or CP, depending on quantity, perspective, evaluation, performativity, etc. Within this view, and apart from describing and identifying the various specifics of gender morphology, syntax, and semantics of some Arabic varieties, and investigating cross-linguistic parallels in other languages such as Romance, Berber, and Hebrew (see Fassi Fehri 2016 a &b), my broad empirical and theoretical interest in this article is to instantiate significant close interactions of the various grammatical categories found in the DP and Gender, and to account for how these interpenetrations follow naturally from appropriate hypotheses about articulation and design of grammatical architecture, framed in a form of what I will call *functional universalism*. Interactions of Gender, Classifier (typically unit or group atomizers), Number (or the 'many' pluralities), evaluation, and performativity are particularly examined.

Taking into account at least interactions between Gen(der), Cl(assifier), and Num(ber) that have given rise to separating so-called classifier languages from number-languages (as in e.g. Chierchia's 1998 *Nominal Parameter*), or separating classifier-languages from gender-languages (or noun class languages; see e.g. Seifart 2010, Crisma et al. 2011), I give empirical substance to the claim that classifiers can productively occur in 'number-languages', as well as 'gender-languages' (providing support for a 'universalist' rather than a 'typologist' approach to these differences; see Borer 2005, Watanabe 2010). On the other hand, it is not only the case that Num and Gen (or Cl) do co-occur in the same nominal projection, indicating that they are not (necessarily) in complementary distribution (*pace* Borer 2005, or earlier work by Sanchez 1973 or Greenberg 1972), but the Gen exponent if often taken to be an expression of Num (or a special form of plurality), illustrating close interactions or correlations of (alternating or mixed) categories, although it is rather a perspectivizer on Num (Leiss 1994, Unterbeck 2000). Other meanings and functions of Gen call for questioning the limitation of its roles and functions to (a) contributing sex (Percus 2010) or (b) forming *n* (Kramer 2014, Kihm 2005, Lowenstamm 2008, Picallo 2008), its pure formal functions aside. As I have repeatedly shown elsewhere, Gen is clearly *polysemous* (rather than monosemic), and *distributed* over multiple syntactic layers (as in Steriopolou & Wiltschko 2010, Ritter 1993, Pesetsky 2013 for Russian, or & Manzini & Savoia 2016, Acquaviva (this volume) for Italian, etc.). A broader and more integrative view of Gen in natural languages is then needed, in which the (a) and (b) roles above account only for a limited range of uses. Such a broad view is compatible with the variable and distinctive interactions between the various functional categories found in the DP.

* This article is a part of a series of papers published or under press on Arabic Gender (including Fassi Fehri 2016 a & b). Part of this work has been recently presented in a number of scientific events, including the Ottawa Workshop on Gender and the Nominal Spine (September 2015), the Olomouc Linguistics Colloquium (June 2016), and the SLE Symposium (Naples, September 2016). I would like to thank the audiences there for helpful remarks and discussions, and acknowledge suggestive comments and useful improvements proposed by two reviewers of the volume.

The prediction is then that the absence (or possibly the silence) of some functional category, or the absence of some distribution or meaning of it is not necessarily parametrically specific to the system of classification or quantity (plurality) of a language, but only limited to a particular construction or morphology (as is partially exemplified by some Arabic 'silent' cases here).

Since most of the patterns I will be discussing have already been quite exhaustively described in previous work (see Fassi Fehri *ibid*, and relevant references cited there), I will dedicate this article to the investigation of some more appealing instantiations of functional universalism through the Arabic lenses, showing (a) how the diversity of Arabic patterns cuts across the widely parametrized taxonomies already mentioned (see Doetjes 2012, Watanabe 2010, 2013, Nomoto 2013), and (b) how the features needed to appropriately describe the many forms of singularities and pluralities found cross-linguistically can refine the universal functional feature inventory (see Mathieu 2014, Beckwith 2007, Fassi Fehri 2003-4, 2012).[1]

In section 1, I describe some aspects of Arabic classifier morpho-syntax, building on parallels between unit or group classification, expressed both by 'feminine' morphology and functional 'pseudo-partitive' syntax. In section 2, I identify various types of Gen agreement, exhibiting distinct properties, including 'low' singular Gen agreement, non-human plural Gen agreement, and the plurative agreement. I also examine the role played by Gen in conceptual and grammatical classification, double classification, formation and distribution of gendered abstract nouns, groups, and kinds, typically in partitive structures, as well as resort to silent functors (as in Kayne 2005, 2016). In section 3, I provide further motivation for analysing Gen as essentially constructional. I then re-investigate the cases of Gen as a perspectivizer, a performative, or a paucal in nominals or numerals. Section 4 summarizes and concludes. Regarding grammatical architecture and theory, a distributed morpho-syntax of (polysemous) Gen is assumed, placing it in various layers and positions, including RootP, nP, DivP, GroupP, and SAP (Speech Act Phrase), and constructing it in syntax, rather than construing it as 'lexical' or 'intrinsic'. I will be assuming broadly the lines of grammar design led by Chomsky (1995), Halle & Marantz (1993), Marantz (1997, 2005), Cinque (1999, 2014), Harley (2014), Speas & Tenny (2003), among others.

1. Classifier morpho-syntax in a 'Number-language'

1.1. Modes of functional unitization

The most salient three types of classifiers documented in the literature on so-called classifier-languages (such as Chinese, Japanese, or Thai), are *sortal* unit classifiers, *mensural* (or measure) classifiers, and *group* classifiers (see Beckwith 2007, Aickenvald 2000, Fassi Fehri & Vinet 2008, Gil 2013). These types of classifiers have Arabic counterparts.

[1] Contributions of Arabic and Western sources to the description of gender in Arabic, although observationally rich, lack an integrative analysis that can account for the various patterns, meanings, and uses. As far as I can tell, there is no theoretical approach to Arabic Gender, nor even a clear typological study (though old Arabic and Orientalist sources are still more inspiring than modern linguistic sources). For a (partial) review and coverage of observations and issues, see e.g. Brockelmann (1910), Fleisch (1961), Ibrahim (1973) and Hachimi (2007), among others.

For example, unit classifiers come in the form of normal 'lexical' nouns meaning *raas* 'head', *faṣṣ* 'clove', *qiṭʕah* 'piece', *nafs* 'self', etc., which are directly counted by the numeral, instead of counting the main noun denoting the object, as in normal numeral expressions:

(1) ṯalaaṯ-at-u ruʔuus-i baqar-in
three-nom heads-gen cows-gen
'three heads of cattle'
(2) ṯalaaṯ-at-u fuṣuuṣ-i ṯawm-in
three-nom cloves-gen garlic-gen
'three cloves of garlic'
(3) ṯalaaṯ-u qiṭaʕ-i samak-in
three-nom pieces-gen fish-gen
'three pieces of fish; three fish'

In these constructions, the main noun (or nP) is uniformly in the *genitive* case, regardless of the function of its DP host in the structure. Moreover, the genitive nP is *bare* (it is in the general or plural indefinite form), denoting kind or mass, but crucially not a singular. Given that the genitive (possessive) relation here is normally associated with the 'partitive' preposition *min* (meaning 'part of' or 'from'), which manifests itself overtly in the analytic synonym counterpart, the construction may be assimilated to a partitive phrase:

(4) ṯalaaṯ-at-u ruʔuus-in min baqar-in
three-nom heads-gen of cows-gen
'three heads of cattle'

Note, however, that these Arabic synthetic or analytic genitives are closer to English pseudo-partitives than they are to partitives. I will point here only some distinctive differences (for a preliminary description, see Fassi Fehri 1980-1, 200-206).

In true partitive structures, the whole-part relation is established through a definite DP acting as a *whole* and a quantificational nP acting as a *part*. In pseudo-partitives, by contrast, the relation is not really about one nP being subpart of another, but rather about 'measurement'. The nP measured is not a full definite DP, but rather a *bare* mass or a plural count nP. Contrast (4) with (5), or the pair in (6):

(5) štaray-tu ṯalaaṯ-at-a ruʔuus-in mina l-baqar-i
bought-I three-acc heads-gen of the-cattle-gen
'I bought three heads of the cattle'.
(6) a. šarib-tu kaʔs-a xamr-in
drank-I glass-acc wine-gen
'I drank a glass of wine'.
b. šarib-tu kaʔs-an mina l-xamr-i
drank-I glass-acc of the-wine-gen
'I drank a glass of wine'.

Three classes of these quantizing expressions can be identified: (a) measure terms (e.g. *kilo, inch, pound*), container nouns (e.g. *bottle, glass, box*), and atomizers (e.g. *grain, piece;* see

Krifka 1989, 2013, Scontras 2014). Whatever the list of these semi-grammaticalized heads and constructions which can be reasonably treated as equivalent to pseudo-partitives in English, they represent a 'mode' of classification in Arabic, close to unit classifier constructions in non-disputably classifier-languages such a Chinese.[2]

But Arabic has another mode for expressing unitization; it is functional Gen. The feminine suffix *–at*, identified as a *singulative*, plays an individuative role and acts as a classifier, as Greenberg (1972) and others have observed (Fassi Fehri 2003-04, *passim*, Zabbal 2002-05, Mathieu 2012, 2013). Feminine Gen morphology is then seen as an alternative mode of expression to the semi-functional head in the analytic constructions analysed above, and at the same time to the classifier in South Asian languages. The 'indirect' noun-headed counting constructions in (1)-(3) above can then be easily replaced by direct counting noun constructions, where a functional Gen suffixes to the lower counted noun (which is plural through the long *–aa* affix):

(7) a. ṯalaaṯ-u baqar-aa-t-in
three-nom cows-pl-fem-gen
'three cows'
b. ṯalaaṯ-u ṯawm-aa-t-in
three-nom garlic-pl-fem-gen
'three heads of garlic'
c. ṯalaaṯ-u samak-aa-t-in
three-nom fish-pl-fem-gen
'three fish'

As first pointed out by traditional Arabic grammarians, as early as the 8th century, the role of the suffix is to form a 'unit' noun *ism waḥd-ah* 'nomen unitatis' derived normally from a kind-base (see Sibawayhi 8th c., Suyuutii 15th c., among others; also Wright 1971).

1.2. Group classification

Group classifiers are similarly placed in genitive 'pseudo-partitive' contexts like those exemplified above in (1)-(4). Thus the pseudo-genitive (8) is paralleled by the pseudo-partitives (9) and (10):

(8) baaqat-u ward-in
bunch-nom rose-gen
'a bunch of roses'
(9) nafar-un min ʔins-in
group-nom of human-gen
'a group of humans'
(10) qatiiʕ-un min ġanam-in
herd-nom of sheep-gen
'a herd of sheep'

[2] As pointed out by a reviewer, it is worth emphasizing that the construct state (or so-called synthetic genitive) alternates with a periphrastic (or analytic) genitive to express partitity (or pseudo-partitivity) in Arabic.

These constructions can be analysed in a way similar to that motivated for the unitizers or singulatives above, basically with the same properties, except that the head of the construction comes from another list of 'lexical' nouns used functionally, to express 'group', 'community', 'collection', 'band', 'troop', 'herd', 'drove', 'flock', or whatever term names a group entity. Like singulative unitizers, their analytic equivalents are used with the pseudo-partitive preposition *min* 'of, from, part of', and as observed for the former, the complement of the preposition must be bare. Contrastively, the definite article (*l-*) is only found with the partitive:

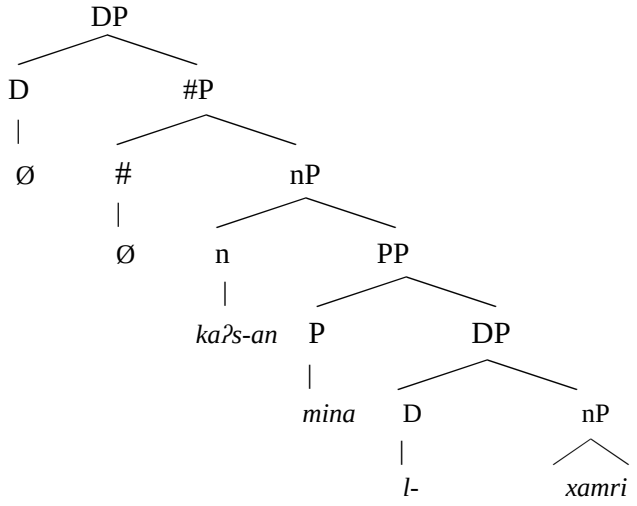
(11) štaray-tu baaqat-an mina l-ward-i
bought-I bunch-acc of the-rose-gen
'I bought a bunch of the roses'.

Thus a 'synthetic' alternative to the 'analytic' group classification in functional morphology comes in the form of what I termed the *plurative*. The latter has the same morphological form (the suffix *–at*) as the singulative, but it has a different syntax and semantics (group constructions in Arabic have been notably described by Fassi Fehri 1980-01, 1984-08, 2003-2004, Ojeda 1992, and Zabbal 2002-05).[3]

1.3. 'Pseudo-partitive' semi-functional structure

Starting at least with Selkirk (1977), it was undisputedly assumed that the partitive and the pseudo-partitive constructions represent two distinct syntactic structures, and that the partitive consists of two separate DPs. Thus a partitive like (6b) has basically the structure in (12):

(12)



(I have simplified the structure and processes involved, putting Ø where the article and numeral is not overtly realized. I have also omitted the Move process by which *n* ends up in D; see Longobardi 2001, Fassi Fehri 1999, as well as Shlonsky 2012 for detail).

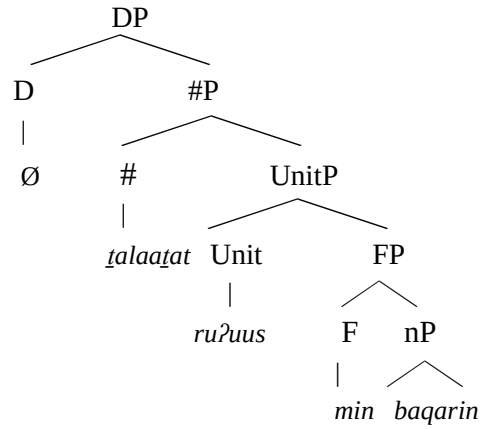
[3] As already explained in Fassi Fehri (2016 a), the term 'plurative' is the most appropriate to designate this classifier form (and agreement marker), being the exact parallel to the singulative. Whereas the latter forms a morphologically marked form of singulars from a collective nominal base, the former forms a morphologically marked form of groups from various bases. As observed there, the terminology is different from that proposed originally by Dimmendaal (1983), and adopted in Africanist literature, to designate a sort of plural of collective, which Mous (2008, 2012) takes to be Gender, rather than Number. To substitute 'collective' to this term, as proposed by a reviewer, is inappropriate. The term collective is very vague, and covers various forms and meanings with different properties, leading to inconvenient confusion. Other substitutes such as "unitizer", etc. are not suggestive either.

In contrast, a mono-phrasal analysis of pseudo-partitive classifier phrases is more plausible.

1.3.1. Pseudo-partitive singulative

Inspired by Stickney (2009) and Keenan (2013), I propose that the structure of construction (4) is basically as follows:

(13)



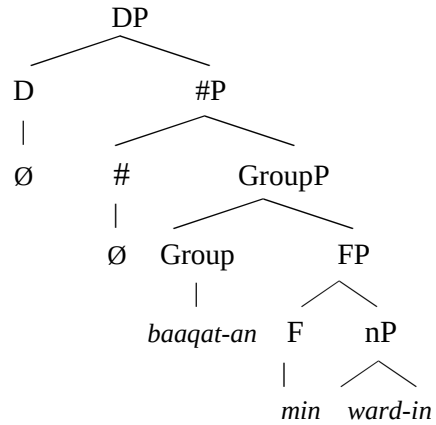
(I disregard here the internal structure of the plural 'heads', as well as that of the nP 'cattle'; UnitP is equivalent to Borer's DivP).

This structure differs substantially from the partitive counterpart in (12). Instead of a fully nominal or lexical ('measure') nP, the unitizer phrase (or the more general measurement MP of Keenan 2013, or Scontras 2014) contains what would have been the part and the whole in the partitive structure. The fully lexical PP in (12) is paralleled by a functional phrase FP here, which in turn contains only a bare nP, instead of a DP. These differences are supposed to take care of the functional semi-grammaticalized nature of the classifier phrase.

1.3.2. Pseudo-partitive group

Consider now the case of group classifiers in constructions like (8). Their structure is presumably as follows:

(14)



(I disregard here the internal structure of *baaqat* 'bunch', as well as that of the nP *ward* 'flowers').

These classifiers group a set of individuals to form an atomic group phrase, the atomic phrase being singular here, in the absence of plural morphology or appropriate numeral phrase (e.g. 'three'). When the numeral is present (or overt), as in (15), the exact parallel to the Unit construction (4) above, and its structure (13), then the numeral is merged under #, and the counted group is in the plural (marked by the vowel lengthening suffix, *–aa;* note that the numeral agrees 'privatively' with the counted noun in gender):[4]

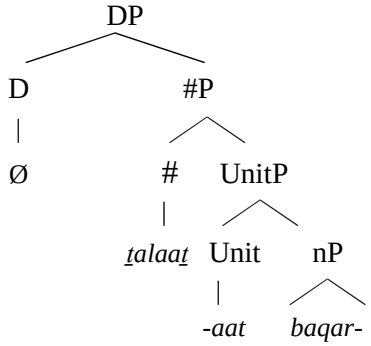
(15) štaray-tu ṯalaaṯ-a baaq-aat-in min ward-in
bought-I three-acc bunch-pl.f.-gen of roses-gen
'I bought three bunches of roses'.

1.4. Functional singulatives and pluratives

Consider now what would be the parallels of (13) and (14) in terms of functional morpho-syntax. The functional parallel to the semi-functional (13) is the singulative construction. As for the functional parallel to the semi-functional (14), the plurative appears to be the best candidate¸ as I will explain below.

Let us look first at the singulative structure, and how it mirrors that of the semi-functional 'pseudo-partitive'. Equivalent to *raʔs baqar* in (13) is *baqar-at* in (16), in which I assume that the functional 'feminine' head *–at* is playing essentially the same role as *raʔs* (although it affixes to the noun, rather than to the numeral; it is also pluralized via vowel lengthening, hence *baqaraa-t*):[5]

(16)



(For the sake of simplification, I leave aside other functional details; I represent Unit with the singulative plural form, although more internal structure is involved; for a more fine-grained structure, see Ouwayda 2014).

Let us turn now to the case of groups, which are also formed via Gen morphology, and which I have termed plurative. We will not take (14) as a base of the derivation, because the atomic

[4] Thanks to a reviewer for making me clarify the structure involved, especially in (14), through overt instantiation in the construction (15).

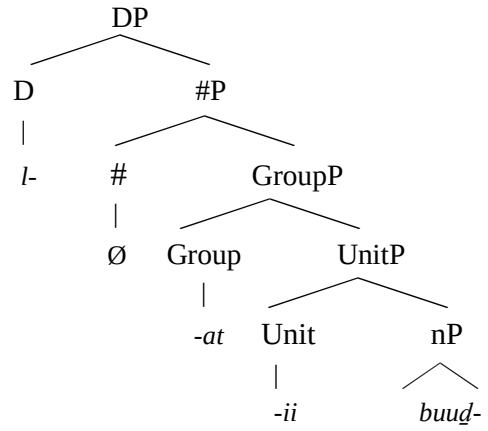
[5] In other terms, Arabic is a 'noun classifier' language, rather than a 'numeral classifier' language in traditional typological classification (see Aikhenvald 2000, 2014, Grinevald 2004, Gil 2002-2013, Seifart 2010, Bale & Coon 2014, among others). Another traditional and possibly relevant distinction is that of 'mensural' vs. 'sortal' classifiers (as pointed out by a reviewer), but I will not address these dimensions here, sticking only to the differences that are mostly relevant to the analytic/synthetic functional expressions of classification I am dealing with.

entity formed from *ward* is the singulative *ward-at*, rather than the plurative. The result means a 'piece' of flowers, rather than a 'bunch' of flowers. Thus a general (or kind) noun like *ward* does not appear to be an appropriate base for forming a functional group. I will look then at cases that are well-formed pluratives, and the formation of which could parallel that of (14). Observe that pluratives can be formed from de-adjectival nouns or from singulatives themselves. Consider the following construction:

(17) l-buuḏiyy-at-u tajammaʕ-at li-l-iḥtijaaj-i
the-buddhist-fem-nom gathered-fem for-the-protesting-gen
'The Buddhists (as a community) gathered for protesting'.

Two forms of pluralities are possible to mean 'buddhists', and both are derived from the singular/singulative *buuḏ-ii*. The 'normal' plural is the sound plural *buuḏ-iyy-uu-na*, formed by suffixing the long vowel *-uu* to the singular. But a plurative is formed via suffixing *–at*. The latter morpheme, I assume, contributes a group meaning, as indicated in (17). For (17) with the relevant reading, a plausible structure is as follows:

(18)



If so, then the plurative selects singulars or singulatives as its derivational base. It can also select plurals, but typically no kind (or general) nP. Singulars, singulatives, and plurals have the common property of being already 'classified' (unitized or 'quantized'; see Krifka 1989, Borer 2005), but crucially not kinds (or masses). Then the structure (18) is built on two classifiers, or two atomizers, one over the other on the same nP, although with distinct meaning contributions, the lower building a singularity, and the upper a plurality. Group Gen is then higher in the structure than Unit Gen, or Plural (when seen as a unitizer or divider). I return to further discussion of this co-distribution below.

1.5. More on groups and singulatives

1.5.1. Groups

The most important feature of groups discussed in the literature is their *dual* or 'mixed' nature. Barker (1992) argues that (i) Group as an *atom/individual* denotes an entity that has no internal part structure; (ii) Group as a *set* is at least partially determined by the properties of its members.

Group-atom differs, semantically and syntactically, from both plurals and conjunctions, contrary to the spread view (in Bennett, Link, and Landman, who consider groups to be semantically a piece of plurals and conjunctions; see references there).[6]

Along similar lines, Pearson (2011) distinguishes two classes of groups: (a) "collection groups" and (b) "committee groups". Class A (i) licenses only atomic predication, (ii) licenses singular agreement in all dialects of English, and (iii) behaves like atoms in partitives. As for class B, (i) it licenses both atomic and plural predication, (ii) it permits plural agreement in British English and Canadian English, and (iii) it exhibits plural-like behavior in partitives. The dual behavior of Arabic groups is amply described in Fassi Fehri (2003-4, 2012), and crucial distinctions between 'lexical' and 'syntactic' collectives are typically highlighted, as manifested by distinct behaviors with respect to e.g. agreement, syntactic reciprocity, and anaphoric pronouns.

As an illustration of the differences between the two classes of groups, consider e.g. the group noun *naas* 'people'. Unlike the group noun *šaʕb*, which also means 'people', but licenses only masculine singular agreement, *naas* licenses two forms of agreement: (a) 'feminine' singular agreement (like a morphological plurative nP), or (b) a 'masculine' plural agreement (like a normal morphological plural nP), as in the following pair of constructions:

(19) a. n-naas-u t-uṣallii li-rabb-i-haa
the-people-nom fem-pray for-god-gen-her
'People (as a group) pray for their God'.
b. n-naas-u y-uṣall-uu-na li-rabb-i-him
3-pray-pl.masc-ind for-god-gen-their
'People pray for their God'.

In these constructions, the nominal *naas* controls either the collective or the plural marker on the verb, and should be coerced accordingly. There is nothing lexical concerning its plural/collective nature, unlike i.e. *šaʕb*, which is lexically constrained.

Note that *naas*, unlike *šaʕb*, cannot license a singular masculine on the verb. Compare the morpho-syntactic agreement alternations of these two groups:

(20) a. š- šaʕb-u y-uṣallii
the-people-nom 3-pray
'People pray'.

[6] Baker argues that the atomic analysis is confirmed by:
(i) uses of names of groups as rigid designators,
(ii) parallels between group nouns and measure nouns, and
(iii) the distribution of groups in dialects of English.
Consequently, groups can:
(iv) be pluralized (*committees*, *armies*)
(v) be counted (*two committees*)
(vi) take an *of* phrase containing a plural complement (an army of children, * a child; a table of wood/ *woods); see Barker *ibid*, 70-71, for detail.

b. * n-naas-u y-uṣallii
the-people-nom 3-pray
c. * š-šaʕb-u y-uṣall-uu-na
3-pray-pl.masc-ind
d. n-naas-u y-uṣall-uu-na
3-pray-pl.masc-ind
'People pray'.

The ungrammaticality of the 'masculine' value on the target of agreement with *naas* in (20b) suggests that *naas* cannot be a singular, unlike *šaʕb*; in fact, it never is. Feminine (when meaning sex) can apply to a singular base, and it is preserved in the derived plural, as is the case of the sound feminine plural *kalb-aat* 'female dogs' above, or it has no singular base, then it is itself a mark of groupness or plurality, as is the case here, or in the morphological plurative. The contrast between (20c) and (20d) confirms the singularity of *šaʕb* and the plurality of *naas.*[7]

Reciprocity manifests also the dual plurality of the plurative. Here too, the feminine plurative and the sound plural are used as alternants, in addition to appropriate anaphoric pronouns. Contrast the following contexts (where *naas* can also occur):

(21) š-šiiʕat-u t-antaqidu baʕḍ-a-haa baʕḍ-an
the-shiites fem-criticize some-acc-her some-acc
'The Shiites (as a group) criticize each other'.
(22) š-šiiʕat-u y-antaqid-uu-na baʕḍ-a-hum baʕḍ-an
the-shiites 3-criticize-pl-ind some-acc-them some-acc
'The Shiites criticize each other'.

The plurality of pluratives is also corroborated by the fact that they are used with plural predicates, unlike singulars which are barred in such contexts:

(23) takat̲tal-at š-šiiʕat-u ḍidda daaʕ-iš-a
united-fem the-shiites against Daesh-acc
'The Shiites made a coalition against Daesh (ISIS)'.

1.5.2. More comparison of singulatives and pluratives

[7] As pointed out by a reviewer, it is worth comparing the distinct behaviours of *naas* and *šaʕb* to those of 'gens' and 'peuple' in French, respectively. 'Gens' is indeed close to *naas,* since it can not only control a masculine plural, but it can also control a 'feminine plural', as in the following construction:

(i) Ces bonnes gens sont naïfs
these good-fem.pl people are naïve-masc.pl
'These good people are naïve'.

Like *naas*, it does not have any 'masculine singular' uses, as far as I can tell. But obviously, *naas* controls a 'feminine singular', although 'gens' does not, among other differences.

In Fassi Fehri (2016 a &b), the following salient properties of singulatives are established and investigated:
(a) The singulative is a functional (morpho-syntactic) process by which a 'collective' (and less frequently) a mass noun is turned into a single individual or unit.
(b) It is commonly marked via Gen (or the feminine) cross-linguistically (Arabic, Berber, Breton, Welsh, Somali, Hebrew, Russian, etc.; see Mathieu 2013).
(c) It triggers feminine singular agreement on its target (as exemplified in (21) and (23)).
(d) It has the interpretation of a singularity (and it cannot be an inclusive plural).
(e) the singulative agreement is uniform (see section 2 below).

Note that similar to *–at* in Standard Arabic, the suffix *–a* forms singulatives in Moroccan Arabic (24), as does the circumfix (discontinuous) *–t* in Berber (25):

(24) ḥut 'fish'→ ḥut-a 'fish-unit'
(25) n-namus 'mosquitoes' → ta-namus-t 'a single mosquito'

Likewise, the suffix *–ii* is used to form human singulatives in Standard Arabic:

(26) yuunaan 'greeks' → yuunaan-ii 'a greek'
(27) yahuud 'jews' → yahuud-ii 'a jew'

In plurative expressions, on the other hand, only the Gen morpheme *–at* forms a *group* or a *collection* of individuals from a singular, a kind, or a plural of individuals. In the relevant cases, the constructed nP denotes a sort of unitized entity (or integrated whole), and the morpheme contributes to shape this unit or whole. The feminine morpheme *–at* is then thought of as a group classifier. Consider the following examples:[8]

(28) a. saakin 'inhabitant' → saakin-at 'inhabitants; population';
b. muʕtazil(-ii) 'a solitary' ; 'a member of a theologian group'
→ muʕtazil-at 'the (so named) thinker group';
c. naṣraan-ii 'a Christian individual' → naṣraan-iyy-at 'Christians (as community)'
(29) a. kaafir 'unbeliever' → kafar 'unbelievers' → kafar-at 'unbelievers (as group)'
b. barbar 'berber-kind' → baraber 'berbers' → baraber-at 'berbers (as community)'.

It is clear from the patterns seen above that pluratives are a special kind of plurals, which can built (or derived) from a broken plural base in some (but not all) cases. In (28), for example, the morphological plurative has no broken plural base. In (29), however, it does have a broken

[8] According to Landman (1996), there is a one-one function from a sum to an atom, which forms a group (an 'impure atom') as follows:
(i) ↑ is a one-one function from SUM into ATOM such that
a. $\forall d \in$ SUM-IND; ↑(d) $\in$ GROUP
b. $\forall d \in$ IND; ↑(d) = d
(*d* the type of individuals, IND singular individual, SUM the set of sums of individuals).
Group formation is supposed to take into account the collective interpretation of the plural in a sentence like the following:
(ii) The boys (as group) carried the piano upstairs.

plural base, although the process formation there suggests that the plurative has more structure than the broken plural form. As a matter of fact, pluratives differ from broken plurals in many respects. Recall that (a) the plurative is (normally) interpreted as a group; (b) it controls a feminine singular agreement form; (c) its feminine agreement is insensitive to the VSO/SVO word order alternation, and it cannot be dropped, unlike feminine agreement with broken plurals; (d) plurativity is syntactically *anchored in discourse*, whereas broken plural formation is not so anchored (see Fassi Fehri 2016a). Moreover, (e) broken plural formation, being essentially morphological, can hardly be seen as syntactically conditioned, as in the plurative case which triggers a particular type of agreement (recall the contrasts in (19) and (20) above). Even when a specific 'meaning' is assumed as characteristic of the broken plural form (as 'kind' or 'inclusive', as opposed to a 'strong' or 'exclusive' meaning of the sound plural, as assumed by Mathieu 2014 and Ouwayda 2014), such a contrast, if true, does not correlate with any (syntactic or semantic) agreement contrast. The confusion arises because broken plurals, like other collectives or morphological pluratives, can be used as syntactic groups with plurative properties. Thus the property of being broken is not the core property on which the relevant contrasts brought up are based. In fact, neither the noun form in the DP (sound, broken, or plurative) nor the gender agreement form (feminine singular) can be the sole determinant of the syntax-semantics involved (see in particular Fassi Fehri 2012, 302-303, fn. 10 & 11 for a critique of the confusion).

2. Many distinct patterns of Gen agreement

Gen agreement properties depend on the semantic and morpho-syntactic properties of the controller and the controllee. I propose to differentiate at least three distinct types, correlated with their 'low' or 'high' syntax.

2.1. Singular low Gen agreement

Gen interpretation associated with singulars can arise as a feature of (a) a root *R* or √, (b) a nominalizer *n*, (c) an individuative Cl, (d) a head, or (e) an adjunct modifier, in line with Fassi Fehri (2016 a &b); see also Wiltschko (2008). To illustrate, the complexity and layering of this low singular Gen, consider first the following contrast, involving a gender 'change':

(30) ʔab-un nabiil-un
father-nom noble-nom
'A noble father'

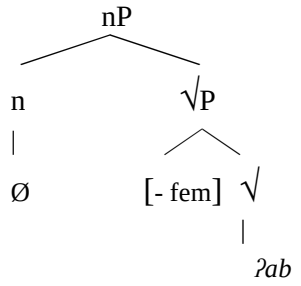
(31) ʔubuww-at-un nabiil-at-un
fatherhood-fem-nom noble-fem-nom
'A noble fatherhood'

I assume that Gen is on √ in (30), and on *n* in (31). Abstract nouns or concepts which name qualities, doctrines, sects, etc. behave morpho-syntactically like feminine (concrete) nPs. They are normally derived from an 'adjective' base, and hence the Gen affix acts as a nominalizing *n.* In other words, *-at* in (31) is treated like its kin in (32):

(32) suhuul-at-un kabiir-at-un
easy-fem-nom big-fem-nom
'A great easiness'

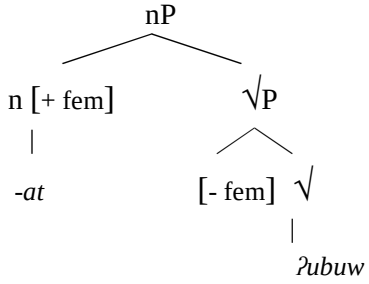
For concreteness sake, I assume that Gen on *ʔab* is a 'conceptual' feature on the root, as in the following structure, and it does not operate as a nominalizer there:[9]

(33)



By contrast, Gen in (31) is part of the nominalizer *n*, as shown in (34):

(34)

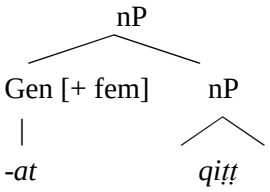


Consider now the masculine/feminine pair, and how it is derived:

(35) *qiṭṭ* 'he-cat' → *qiṭṭ-at* 'she-cat'

There is no evidence that the feminine here is a head nominalizer. Rather the masculine member is already 'nominal', in the same way that *ʔab* above is nominalized, and the feminine operates as an adjunct modifier:

(36)



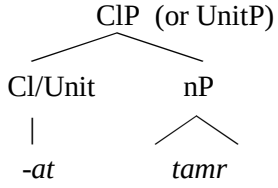
[9] The nominalizer is a rather silent Ø head. See Kayne (2005). The need for conceptual Gen has been notably pointed out by e.g. Köpke and Zubin (1996), who argued that "… much of the German grammatical gender is *conceptually* motivated in that certain semantic fields tend to be marked by some specific gender [underlining mine; FF]", despite "the widespread view among autonomist grammarians that […] gender in German is most purely grammatical [totally arbitrary] category, not motivated in any way by conceptual factors" (p. 172). Various other motivations have been brought in by McGinet (2015) for the equivalent 'notional' gender, or Mithun's (2015) 'cultural' gender, among others.

Consider finally the individuative classifying Gen. If the nominal in (37) is derived from a kind base in (38), which is already 'nominal', then the individuative Gen is not a nominalizer either:[10]

(37) *ʔakal-tu tamr-an*
ate-I date-acc
'I ate (one or more) dates'.
(38) *ʔakal-tu tamr-at-an*
ate-I date-unit-acc
'I ate a (one) date'.

Gen is rather higher than nP, in the Cl or Unit head, as represented in (39):

(39)



There are less straightforward or 'mixed' cases of low Gen to solve, cases of pairs like *jamal/naaq-at* 'camel/she-camel' or *ʔasad/labuʔ-at* 'lion/she-lion', *qird/qišš-at* 'monkey/she-monkey', *rajul/mraʔ-at* 'man/woman', etc. If the root base has conceptual Gen, one wonders what role is the feminine morpheme playing on the feminine member? There are various options that suggest themselves.[11]

One possibility is that *–at* in the feminine form is a *nominalizer*, forming the noun (i.e. part of *n*) from a root which cannot surface as such. That is, the noun *naaq-at* or *labuʔ-at*, etc. is not composed of *n* and some contentful morpheme meaning sex in the syntax, but rather behaves like the 'lexicalized feminine' noun *ʔumm* above. The situation became different when the regular *qird/qird-at* in Modern Standard Arabic and the dialects replaced the derivationally unrelated *qird/qišš-at* in Classical Arabic, in a tendency to generalize the grammatical feminine to the previously lexicalized feminine.

[10] The individualizer morpheme operates on kind event nominals in a similar fashion, to form units of events. For example, an event nominal acting as a cognate object can express a *kind event*, as in (i), where it denotes that one or more dances have been performed, or a countable *event unit* (or instance) as in (ii):

(i) *raqaṣa r-rajul-u raqṣ-an haadiʔ-an*
danced the-man dance-acc soft-acc
'The man danced some soft dancing.'
(ii) *raqaṣa r-rajul-u raqṣ-at-an waaḥid-at-an*
danced the-man dance-unit-acc single-fem-acc
'The man danced a single dance'

See Fassi Fehri (2016a) and references cited there for detail.
[11] Thanks to a reviewer for raising the issue.

Another possibility, which is only of diachronic importance, is that *labuʔ*, *naaq* were in fact general nouns in Old Arabic, of which *labuʔ-at* and *naaq-at* are historical singulatives, which then came to be used later as feminine. Sijistaanii (9th c., 83-84) states that *labuʔ* was part of the dialect of the Arabic tribe ʕAbd al-Qays (in the Arabic Peninsula) before it became obsolete. He also gives the pair *ʔasad/ʔasad-at* as historically used, before *ʔasad-at* became obsolete. Likewise, *naaq-at* is presumably of individuative origin from the general *naaq*, taken to be a 'plural' in some dictionaries. As for *mraʔ-at*, it has a masculine base *mruʔ*, although meaning 'person', rather than 'man'. The feminine *rajul-at* is also found (although only as an adjective meaning 'strong (woman)'), as explained in Fassi Fehri (2016 a & b; see also the references there). Although the details of each of these low gender origins are beyond the purpose of this article, it is clear that there are tendencies and influences in standard and colloquial varieties to reorganize their lexicon or syntax (both synchronically and diachronically) as conceptual, *n*, modifier, or singulative Gen, moving from lexicalization to grammaticalization, or vice versa (see Brockelmann 1910, Ibrahim 1973, Roman 1990, Idris 1999, Hachimi 2007 for western sources, among many others).[12]

2.2. Non-human based plural Gen agreement

Non-human plurals are normally treated as 'feminine singular', although they are neither semantically singular, nor do they (necessarily) refer to females. It is the [± human] opposition (rather than [± fem]) which is the relevant feature for this sort of plurals (typically those in broken forms):

(40) l-kilaab-u nabaḍ-at (?? nabaḍ-uu 'barked-pl')
the-dogs-nom barked-fem
The dogs barked.

The construction (40) can be a statement about a plurality of only male dogs, hence the broken plural *kilaab* is not semantically feminine. Note that *kalb-at* in the singular is a 'female dog', and *kalb-aat* in the sound plural stands for 'female dogs'. But the broken non-human plural uses a sex neuter *–at* in the agreement on the verb to express only non-human plurality.

Evidence for a non-human analysis comes from various sources. First, unless 'personified', *kilaab* is not compatible with a 'normal' plural morphology on the verb (hence the ungrammaticality of the use of *–uu*, in the unmarked case). This behavior contrasts with that of plurative agreement, which allows for a dual 'mixed' behavior, as we have seen above, according to which an alternative normal pluralization is always possible (see the alternant verb agreement patterns in (19) and (21)-(22) above). Likewise, a plural feminine adjective (*-aat*) is

[12] A good example of reorganization (or restructuring) can also be given with the classical 'lexicalized' pair *šex/ ʕajuuz* 'old man/old wowan', where the first member of the pair was dedicated to the masculine, and the second to the feminine. But its modern grammaticalized gender counterpart became *ʕajuuz/ʕajuuz-at*, in which the first member became treated as the masculine member, and the second as regularly feminized by *-at*. Note that the latter pair is the standard case in the Arabic dialects, which have probably influenced the change in Modern Standard Arabic.

normally barred to occur with non-human plurals (only a singular is grammatical), whereas it is the norm with human feminine plurals:[13]

(41) l-kilaab-u jaaʔiʕ-at-un (?? jaaʔiʕ-aa-t-un 'hungry-pl-fem-nom')
the-dogs-nom hungry-fem-nom
'The dogs are hungry'.
(42) l-banaat-u jaaʔiʕ-aa-t-un (* jaaʔiʕ-at-un 'hungry-fem-nom')
the-girls-nom hungry-pl-fem-nom
'The girls are hungry'.

Third, the non-human gendered plural, unlike the plurative, is not sensitive to the distributive/collective vs. group interpretation. As amply described in Fassi Fehri (2012), a normal plural is distributive (or collective), but a plurative is not distributive. In contrast to the plurative, however (and like a normal sound plural), a broken non-human plural can be (weakly) distributive (and collective), but does not have a (strong) group reading.

The Gen system then turns out to be more complex, not only because it involves both sex-based and human-based specifications, but also because singularities and pluralities call for distinct genders. Moreover, many other meanings or functions of the feminine remain outside the oversimplified picture, and counting 'the number of genders' (2 or 3 or more), a frequent practice of typologists, turns out to be a non-easy matter given the complexity established.

Note that non-human plural agreement, although sharing the form of 'feminine singular' with plurative agreement cannot be confused with the latter. First, gender can be (optionally) 'dropped' in the VS order with a non-human plural subject, but not with a plurative subject interpreted as a group. Whenever a collective DP occurs with a 'masculine' predicate in a VS order, the only available interpretation is distributive (or collective), rather than group. The Num involved on the predicate is 'normal' Num, rather than plurative Num. The distributive/collective semantics associated with such agreement pattern or type (rather than group semantics) is also found in the alternative 'normal' SV order agreement counterpart. Hence the constructions in (43) and (44) are the VS counterparts of the unique SV construction (40) above (where the agreement in Gen is obligatory):

(43) nabaḥa l-kilaab-u
barked the-dogs-nom
The dogs barked.
(44) nabaḥ-at l-kilaab-u
barked-fem the-dogs-nom
The dogs barked.

Second, there is no dual syntax/semantics involved here, as is the case in the plurative. I assume that the Gen of non-human plurals is generated under NumP (or #P), rather than GroupP.[14]

[13] The plural feminine is possible in these contexts, as documented e.g. by Ferguson (1959), (1989), Belnap (1993), and others, but only when additive semantics is brought in, inducing in particular strong (or scattered) distributivity, or personification. Thus (41) represents the unmarked case (which can be read as collective or weakly distributive).

[14] My purpose here is only to establish non-human plural agreement as a distinct type of Gen agreement. The analysis is obviously in need of refinement. Clearly, the non-human plural agreement is genderless (or sexless), but this genderless option does not appear to be available for human broken plurals like *ʔawlaad* 'children', or *rijaal* 'men',

2.3. The 'mixed' plurative, or when Gen is Num (= Group)

Among the most salient properties of Gen in the plurative:
(a) it is not a low Gen, given its interpretation;
(b) it cannot be dropped, or the group interpretation would no longer obtain.
Compare the following constructions:

(45) jaaʔa niswat-un mina l-madiinat-I
came women from the-city-gen
Some women from the city came.
(46) qarrar-at š-šiiʕat-u nabḏ-a s-sunnat-i
decided-fem the-shiites eradicating the-sunnis
The Shiites (as group) decided to eradicate the Sunnites.
(47) qarrara š-šiiʕat-u nabḏ-a s-sunnat-i
decided the-shiites eradicating the-sunnites
The Shiites decided to eradicate the Sunnites (no group reading).

Note that the feminine suffix has been dropped in (45), but not in (46), where a group reading is found. In (47), there is no gender agreement, and the only available reading of plurality there is the distributive/collective, which is compatible only with normal plural agreement, but not with the plurative.

Other features of plurality interpretation and syntax have been already examined above, in particular the manifestations of the dual plurality behavior. Recall that when viewed as essentially atomic, the morphologically plurative DP reflects its atomicity (which is blind to the number of the parts) via 'feminine' agreement on the predicate. When it is viewed as 'atomistic' plural, i.e. when a room is made for visibility of its parts, then it manifests itself as a 'masculine' (or genderless) plural, i.e. a plural that expresses the multitude of the parts (but cannot be construed as group).

2.3.1. In Moroccan Arabic, Gen is also Num

In Moroccan Arabic (like in the standard), many forms of plurals, whether plurals of adjectives or of nouns, come either in plural or feminine forms. This duality of forms, which is not always

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which can be construed only as normal masculine plural or plurative, but not as a sort of genderless kind. Note that the non-human option has disappeared in a number of Arabic dialects, and the the normal plural has been generalized to non-human plurals. The only alternative left with Gen is the plurative option, as illustrated by the following Moroccan pair:

(i) l-kelab nebḥ-u
the-dogs-nom barked-pl
The dogs barked.
(ii) l-kelab nebḥ-et
the-dogs-nom barked-fem
The dogs (as group) barked.

reflected in agreement, is exemplified in the pair (48), the productivity of which depends on idiolects or interpretation. For example, a word like *kaddab*, 'liar', whether used as adjectival or nominal, can have a plurative feminine form *kaddab-a* 'liar-fem', or a plural 'masculine' form *kaddab-in*:

(48) a. r-rjal keddab-a
the-men liar-fem
Men (as group) are liars.
b. r-rjal keddab-in
the-men liar-pl
Men are liars.

The distributive/group duality of the plurative is reflected on the verb agreement in (49), and the adjective agreement in (50):

(49) a. š-šeffar-a qwa-w hna
the-thief-fem became.strong-pl here
Thieves became numerous here.
b. š-šeffar-a qwa-t hna
the-thief-fem became.strong-fem here
Thieves (as a corps) became numerous here.
(50) a. n-naas ʕajib-iin
the-people funny-pl
People are funny.
b. n-naas ʕajib-a
the-people funny-fem
People (as a group) are funny.

Note that feminine as sex and feminine as group are not only dedicated to nouns, but occur on adjectives as well, and may be interpreted on the latter, unless we postulate that the structure of these DPs involves a silent *n* or classifier group, which is modified by the adjective, and licenses the feminine marking there. Silent head nouns, quantifiers, and classifiers have been notably proposed and motivated by Kayne (2005, 2016, and *passim*).[15]

2.3.2. Conceptual and grammatical classification

The patterns observed indicate that Gen is not only a *conceptual classification* in the strong sense (as in Lakoff 1987), whereby it may assemble 'women', fire', and 'dangerous things' or 'divine entity' (God) as one class of things, it is also a *grammatical classification* in the strong sense too, where an ontological/conceptual class like groups can be divided into 'feminine' wholes and non-feminine wholes, depending on how its wholeness and partitions are manifested in the grammar.

[15] Kayne's silent head hypothesis deserves a deeper exploration in the grammar of Arabic, in particular to identify precisely the content of the head to which the affix *–t* attaches. Due to lack of space, however, I will not explore the matter here, leaving it for future research.

As observed earlier, double grammatical classification is possible, provided the two classifiers are not totally homophonous (i.e. the co-occurrence of *–at* as a singulative or feminine and *–at* as plurative is barred). But co-occurrence of the singulative human *–ii* with the plurative *–at* is not barred, as in the following derivations, instantiating national groups:[16]

(51) a. yahuud 'jews' → yahuud-ii 'jew-indiv; a jew'
→ yahuudiy-a 'jews (as a community)'
b. yunaan 'greeks' → yuunan-ii 'greek-indiv; a greek'
→ yuunaaniy-a 'greeks (as a community)'

Likewise, Moroccan Arabic derives professional groups not only from singular nouns/adjectives, as in (52), but there is a long list of professional groups, involving singulatives as their derivational base, hence resulting in double classification, as in (53):

(52) a. bennay 'mason' → bennay-a 'masons'
b. beqqal 'grocer' → beqqal-a 'grocers'
c. nejjar 'carpenter' → nejjar-a 'carpenters'
(53) a. bnader 'tambourines' → bnadr-i 'tambourine player' → bnadriy-a 'tambourine players'
b. dmalej 'bracelets' →dmalj-i 'bracelet-maker' → dmaljiy-a 'bracelet-makers'
c. dnaden 'pop-music' → dnadn-i 'pop-musician' → dnadniy-a 'pop-musicians'
d. swani 'trays' → swayn-i 'tray-maker' → swayniy-a 'tray-makers'
e. qšašb 'blouses; jokes' → qšašb-i 'blouse-maker; joke-maker'
→ qšašbiy-a 'blouse-maker; joke-maker'
f. bzatem 'wallets' → bzatm-i 'wallet-maker; maroquiniste'
→ bzatmiy-a 'wallet-makers; maroquinistes'
g. kamanj-i 'violonist' → kamanjiy-a 'violonists'
h. flayk 'boats' → flayk-i 'boatman'→ flaykiy-a 'boatmen'

We see then that Cl or Gen is not limited to just one layer in the internal structure of the DP. A room for more complex Gen or Cl is then needed in the grammar, making use of R, n, Cl, Group, and Num configurations, rather than just *n*.

To sum up, plurative DPs like the syntactic collective *naas* 'people', the plurative *kafar-at* 'unbelievers', or the broken form like *rijaal* 'men' used pluratively, when interpreted as Group, reflects obligatorily 'feminine single' agreement in both VS and SV orders. When used as distributive plurals, these DPs trigger masculine singular agreement in VS order, and masculine plural agreement in SV order. Finally, lexical collectives like *šaʕb* (or *fariiq* 'team') reflects basically only masculine singular agreement in both VS and SV order, and more importantly, they cannot be used pluratively. Clearly, there are three options of agreement which semantically impact the interpretation of plurals and groups: (a) distributive plurality (with plural predicates or agreement), (b) plurative groups (with plurative agreement) and dual semantics as atoms or sets/sums, (c) and singular groups (with singular agreement) interpreted as atoms only.

[16] Presumably, some principle barring succession of homophones must be at stake here. See Kayne (2016) for discussion.

2.4. Partitives, groups, and kinds

Partitive syntax can be telling more about the properties of noun classes, the DPs that function as the 'whole', the lexical/syntactic group dichotomy, or the count syntax.

In partitive structures in Moroccan Arabic, the animate 'group' classifier *rfaga* (or its variant *refga*) meaning 'a company' or 'a group' occurs (a) with syntactic groups, (b) morphological pluratives, in addition to (c) plurals and (d) general nouns (or kinds), but not with lexical groups:

(54) a. rfaga d-nnas
group of-the-people
'A group of people'
b. rfaga d-š-šeffar-a
group of-the-thieves
'A group of thieves'
c. rfaga d-l-wlad
group of-the-children
'A group of children'
d. rfaga d-l-wezz
group of-the-geese
'A flock of geese'

In such contexts, lexical singular (or atomic) groups are notably excluded:

(55) a. * rfaga d-š-šaʕb
group of-the-people
b. * rfaga d-l-fariq
group of-the-team

The exclusion of these groups from that position is expected if they are treated as singular atoms, as explained above. Their exclusion mirrors that of singular nouns, which are incompatible with the semantics of the group noun *rfaga*, the 'part' which measures a certain number of individuals, rather than just one:

(56) * rfaga d-l-weld
group of-the-child

Contrastively, if *naas* or the plurative is a set group, then its semantics is compatible with such a quantity/number, just like it is the case with the plural. Note that pure mass nouns are also excluded here, presumably because *rfaga* is confined to the measurement of a number of individuals, rather than to measure amounts:

(57) * rfaga d-z-zit
group of-the-oil

Note that these various forms of pluralities can be constructed with counting numerals in similar partitive contexts, resulting in similar grammatical judgements:

(58) jaw tlata d-š-šeffar-a; d-n-nas
came three of-the-thieve-group; of-the-people
Three (a) thieves, (b) three people came.

(59) šri-t xamsiin d-lbgr; d-l-ḥmam
bought-I fifty of-the-cattle; of-the-pigeon
I bought fifty (a) cows, (b) fifty pigeons.

(60) jaw tlat-a *d-fariiq; *d- š-šaʕb
came three of-the-team of-the people

(61) šri-t tlata *d-zzit; *d-teffaḥ-a
bought-I three of the oil; of the-apple-unit

General nouns of the sort discussed here have been treated in Fassi Fehri (2003-4) and *passim* as kind individuals (=K) and their particular instances (the singulatives) as objects or singular individuals (= I), along the lines of Carlson (1977). Two features have been used there to classify nominals: [± atom], and [± sing] (for singulative). Both K and I individuals are marked as [+ sing], accounting for the instantiating or concretization relation R between the two. But while I is seen as [+ atom] object, K is not so marked; it is rather [- atom]. On the other hand, singular groups, having no proper parts, are specified as [+ atom, -sing], while mass (= M), which is lacking both proper parts (or internal structure) and atomicity (or integrity) is marked as [- atom, -sing]. See Fassi Fehri (*ibid*) and Fassi Fehri & Vinet (2008) for detail and relevant references for binary feature classification of individuation, including Rothstein (2009).

The importance of this double feature system is that it treats individuation (or counting) at two levels or modes of structure: (a) one ‘direct’ mode of counting or individuation involved in direct measurement of the number of nouns via using (cardinal) numerals as in (62), for example, where the counted noun is necessarily (atomically) individuated, and (b) one ‘indirect’ mode of individuating found in the partitive structures examined, as in (59) for example (where a general noun, a K , occurs instead of I):

(62) xamsin djaj-a
fifty chicken-unit
‘fifty chicken’

In ‘direct’ counting, only the [+ atom] value is relevant (or required), in ‘indirect’ counting, the [+ sing] value is also relevant.

An exactly similar behaviour is observed in Standard Arabic partitives with respect to the selection of the group quasi-classifier *zumr-at*, typically:

(63) marr-at zumr-at-un
passed-fem group-fem-nom
a. mina n-naas-i ‘of the-people’
b. mina l-baṭṭ-i ‘of the-duck’
c. * mina š-šaʕb-i ‘of the-people’

'A group of people (*naas, *šaʕb*), of ducks passed'.

3. Further motivation of Gender as constructional

The bases for taking gender to be constructional, rather than nominally inherent, were first grounded in Fassi Fehri (2016a), and it is not my intention to repeat all the basics or details here, but only recapitulate and re-illustrate some of the specific cases in which Gen cannot be analysed as 'lexical' or 'inherent', but rather arising or constructed in syntax. I re-examine first the 'perspectiviser' and 'performative' Gen as prototypical cases. I also introduce *paucal* Gen, which marks paucal plurals and paucal numerals. In all these cases, Gen finds its source only in the syntactic computation.

3.1. Gen as a 'perspectiviser'

In the rather famous nominal sentence (64), originally found in Sibawayhi (8th c.), II, 39, the foregrounding pronoun *hiya* 'she' (fem.sing) is used, instead of the more common plural masculine *hum* (-u), found in (65):

(64) hiya r-rijaal-u
she (fem-sing) the-men-nom
'That is men (as a group)'.
(65) humu r-rijaal-u
they (masc-pl) the-men-nom
'That is men'.

Rather than being a case of merely free use, the alternating pair is discourse-oriented, expressing a distinct perspective of the speaker in viewing how the plural pronoun is construed, as amply explained in Fassi Fehri (2016 a &b). When the plural *rijaal* is foregrounded by *hiya*, it is basically viewed as group/unit, when it is foregrounded by *hum*, it is seen as an unspecified (or unorganized) multitude.

Note that there is no way to interpret the feminine here as (female) sex, since *rijaal* is conceptually male, and it behaves grammatically as such in most cases. Ferguson (1959), among many others, reported a similar variation (in verbal and adjectival contexts) in Syrian Arabic, and he termed the two forms of agreement involved there 'deflected' and 'strict', respectively, without paying much attention to the contentful signification of the contrast. Others have followed his steps, including Belnap & Shabaneh (1992), Belnap (1993) for Colloquial Egyptian, or Corbett (2000); see also Ferguson (1989) for more detail. Concentrating on the variation in (64)-(65) and similar cases as if were only a free variation in agreement is misleading. The terminology 'deflected' gives the impression that the agreement involved in (64) involves a mismatch, or it has deviated from its original path.[17] Furthermore, it is not obvious that the agreement in (64) is in Number, just as it is (65). As a matter of fact, I take the agreement in (64) to be agreement in Gen in the broad sense, rather than Number.[18]

[17] Adding even more to the confusion is Corbett (*ibid*) who proposes to designate the agreement contrasts in similar cases to (64)-(65) as 'syntactic', and 'semantic', respectively.

[18] In Belnap & Shabaneh (1992), the discussion is limited to non-human controllers, where the adjective or the verb targets when plural may be interpreted as personified, or pointing to a 'scattered', rather a 'collective' plural. Nothing

3.2. Performative Gen

Another instance of a strikingly non-lexical and non-inherent gender occurs in performative contexts like the following:

(66) yaa ʔab-at-i ṭmaʔinn
oh father-fem-mine be.reassured
'Oh beloved father, be reassured!'

Often qualified as 'obscure' or 'bizarre' (Hämeen-Antikka 2000, 601, Wright 1971), this gender has not received any treatment in the literature. However, it finds its natural place in the context of our broad view of gender, namely constructed Gen.

Note that there are two genders involved in the interpretation of the vocative construction here. One conceptual ('male') gender occurring on the verb is associated with *ʔab* 'father'. A second 'feminine' gender is attached to the noun, and it is not (cannot be) interpreted as converting the noun to a feminine father. It is rather endearing the father. Moreover, this kind of endearment is not free to apply to any participant in the speech. It is rather confined to the speaker. This is why I called it Performative Gen. For motivation and analysis, see Fassi Fehri 2016 a & b. Clearly, performative Gen is only syntactically and discursively licensed. No lexicon is at the source of its computation.

3.3. Paucal Gen and paucal numerals

In nominals, paucal gender mark paucal plurals like the following:

(67) a. ʔaḍrif-at 'envelopes'
b. ʔaqniʕ-at 'masks'
c. ʔasʔil-at 'questions'
d. fity-at 'youths' (sing. *fataa* 'young man')

It is said that paucals are basically 'feminine', and they deserve to be marked by *–t* (which surfaces on some forms), to express a small quantity, or a paucal plurality. Other forms of plurals are also claimed to be paucal, such as *ʔašhur* 'months', *ʔawraaq* 'papers', etc. although they are not marked by *–t*, yet their target may bear a feminine agreement marker.

It is also said that paucal plurals name quantities between 3 and 9/10, but not more. Other plurals are thought of as *multal* (or 'plural of abundance'), such as *fityaan*, *šuhuur*, *ʔaqawiil* (for detail, see Ojeda 1992, Wright 1971, Fleisch 1961, Ryding 2005, back to Sibawayhi 8thc.; see also Fassi Fehri 2012, and An-Nahhaas 1979, Ch. 2)

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like the plurative controllers discussed here are brought in. Belnap (1993) introduces some variability with human controllers, first documented in Fassi Fehri (1984-08), but his remarks and proposals remain informal and rather unclear. Crucially, the non-human and human configurations of agreement cannot be adequately treated as similar, as I have shown.

It is then no surprise that number terms from 3 to 10 come as ‘feminine’. They are derived from a numeral base to which the feminine affix is attached. The list includes:

(68) t̲alaat̲-at ‘three’, ʔarbaʕ-at ‘four’, xams-at ‘five’, sitt-at ‘six’, …, ʕašr-at ‘ten’

It is worth emphasizing that the feminine gender generalization hols only of number terms, i.e. numerals used typically in enumeration lists, which are also simple numbers. When these numerals enter other syntactic contexts (e.g. as ‘adjectives’), or when they combine in complex numerals, their gender may be changed or maintained, depending on contextual ingredients. For example, in construct state numeral constructions, it is said that the gender of the numeral is maintained only if the gender of the count noun is masculine, as in (69), otherwise an ‘inverse’ or ‘privative’ gender is required with a feminine count noun, as in (70):

(69) t̲alaat̲-at-u ʔawlaad-in
three-nom children.pl.masc-gen
‘three children’

(70) t̲alaat̲-u baqar-aa-t-in
three-nom cows-pl-fem-gen
‘three cows’

On the other hand, the gender on the unit is feminine, and the gender on the decade is privative when the count noun is masculine as in (71), but the reverse applies to the members of the complex numeral when the count noun is feminine, as in (72):

(71) t̲alaat̲-at-a ʕašar-a rajul-an
three-fem-acc ten-acc man-acc
‘thirteen men’

(72) xams-a ʕašr-at-a mraʔ-at-an
five-acc ten-fem-acc woman-acc
‘fifteen women’

The analysis of the intricacies and details of gender ‘agreement’ or co-occurrences in numerals and counted nouns is obviously far beyond the aims of the article. Suffice it at this point to emphasize that the feminine gender in these contexts is associated with the meaning of paucity, and that the gender change is conditioned by appropriate contexts, rather than being arbitrary, or ‘lexical’, etc.

3.4. Is *–t* Gen or Num?

Consider now the question whether *–t* (or fem) in a number of the constructions analysed can be construed as an expression of Gen or Num, a question already raised in Fassi Fehri (2016 a &b, in connection with the the Mous/Corbett dispute mentioned there as to whether the plurative in Cushitic is Gen or Num). Previously mentioned references such as Ferguson (1959), Belnap (1993), or Corbett (2000) take *–t* to be just another form of the plural (or Num), without motivation. By contrast, I take it to be a genuine expression of Gen. As a matter of fact, there is no real motivation for taking *–t* to be Num, since both its syntax and semantics point to the contrary.

Regarding its semantics, when *–t* is a unitizer, expressing a specific perspective on plurality, it is closer to a classifier (or Gen, being a group) than to a plural (or Num), as I have already shown here and in various places (with some ambiguity akin to groups in some cases). When it expresses paucity, *-t* contributes a restriction (or limitation) on Num, rather Num itself. Similar reasoning can be applied to cases where Gender plays the role of an evaluator, or a modifier (normally inducing an 'intensive' meaning), as in the following examples (ample description and analysis of evaluative Gen is provided in Fassi Fehri 2016 a&b; for gender as an evaluator in other African languages, see e.g. Di Garbo 2013):

(73) a. ṭaaġiy-at; tyrant-fem; 'a big tyrant'
b. daahiy-at; shrewd-fem; 'a big shrewd'
c. raawiy-at; narrator-fem; 'a famous narrator'
d. miqdaam-at; brave-fem; 'a very brave'

On the whole, the morphology (or syntax) is interpreted as being a morpho-syntax of Gen, rather than Num, and the idea that the gender form is just another form of Num (perhaps deflected or reduced) is not supported by any morpho-syntactic or semantic evidence. Given our view of Gen and the computational mechanism used to build it in syntax, its large variety of meanings is then expected.

4. Conclusion

What I have described here is a Gen category that is more active in shaping the architecture of grammar than has been done so far, without confining Gen only to the role of contributing a nominalizing function, or expressing sex (in addition to being 'formal' or 'arbitrary'). Gen then turns out to be actively involved in unitization, group formation, or more generally in the fine-grained feature specification of nominal classes. It closely interrelates traditional gender, classifier, and number morphologies, and its morpho-syntactic interpretable patterns cross-classify, supporting a functional universalist approach (a la Borer 2005, pace Chierchia's 1998 parametric approach). Likewise, plurative morpho-syntax, although apparently parametrical (typological or morpho-semantic), has been shown to exhibit significant parallels in group syntax, as described by e.g. Barker, Pearson, or de Vries (2012). Since Gen has already been shown to be involved in other roles with adjective modification, event unitization, evaluation, and performativity (see e.g. Fassi Fehri 2016 a &b), we are clearly in need for a more integrative and broad view of Gen, which takes into account its various distributions and polysemies. I claim that the ingredients and patterns described can only be accounted for if Gen is constructed in the computation.

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