

Masculine plural agreement with inanimates and animals in the Qurʾān. Simply “personification,” or an early Neo-Arabic feature?*

Melanie Hanitsch¹

Abstract

With plurals referring to inanimates and animals Qurʾānic Arabic mostly displays the (pre-)Classical agreement variation F.SG ~ F.PL/CG.PL. The occasional occurrence of M.PL agreement (e.g., Q 26:4), is usually accounted for in terms of “personification” and not further contextualized within the range of Arabic varieties.

However, in light of the structural and language historical contiguity between Qurʾānic M.PL and the Neo-Arabic uses of M.PL (Middle Arabic, Modern Dialects), we must address the question of whether the former represents an early Neo-Arabic feature.

The problem is approached by offering a statistical analysis (based on Corbett’s “agreement hierarchy”) and a micro-typology of the relevant Qurʾānic material. The statistic shows that the distribution of M.PL is in favor of its interpretation as a new, just-emerging agreement type. The micro-typology suggests that the main reasons for the use of M.PL are metonymy and animacy resolution and that some contexts favor reanalyzing M.PL as a “plural of common animacy.” I conclude that, although Qurʾānic M.PL with inanimates/animals is not a full-grown Neo-Arabic feature, it represents the last layers of an evolution toward the Neo-Arabic type of construction.

Keywords: Qurʾānic Arabic, Neo-Arabic, Modern Arabic Dialects, Middle Arabic, Arabic historical linguistics, personification, metonymy, loss of gender distinction, animacy, grammatical agreement resolution

* The database that served as a resource for this contribution was established with the support of the “Bavarian Equal Opportunities Sponsorship – Realisierung von Chancengleichheit von Frauen in Forschung und Lehre (FFL) – Realization Equal Opportunities for Women in Research and Teaching.” — For this paper, which was presented at the 34. Deutscher Orientalistentag Berlin on the 15th of September 2022, I used the literature that was available up to that date. In the present publication, the main argument remains unchanged, but I have additionally consulted a more recent publication, Simone Bettega, and Luca D’Anna, *Gender and Number Agreement in Arabic* (Leiden, Boston: Brill, 2023). These authors have been interested in questions similar to the ones I address, and have reached conclusions that are akin, but not identical to mine (Bettega and D’Anna, *Gender and Number*, 210-212).

1 Friedrich-Alexander-Universität Erlangen-Nürnberg. Email: melanie.hanitsch@fau.de.

1. Problem, question, and method

Modern Standard Arabic has an almost thoroughgoing agreement rule according to which non-rational/inanimate plurals take feminine singular agreement, e.g., *šawāri‘u l-madinati mutadāhīlatun* ‘The streets [M.PL] of the city are labyrinthine [F.SG],’² *al-fawākihu l-ḥulwatu* ‘sweet [F.SG] fruits [F.PL].’³ This rule may be very common and well-known to any student of Arabic, but from a cross-linguistic and typological perspective, it is rather remarkable, given the mismatch in gender and number that results between the controller⁴ (masculine or feminine plural)⁵ and the target (feminine singular). For this mismatch—which is so characteristic of Arabic—Charles A. Ferguson coined the convenient term “deflected agreement.”⁶

2 Vicente Cantarino, *Syntax of Modern Arabic Prose* (Bloomington, London: Indiana University Press, 1974), 1:24.

3 Hashem El-Ayoubi, Wolfdietrich Fischer, and Michael Langer, *Syntax der arabischen Schriftsprache der Gegenwart. 1.1: Das Nomen und sein Umfeld* (Wiesbaden: Reichert, 2001), 398.

4 The ‘controller’ is “the element which determines the agreement”. As for “the element whose form is determined by agreement”, it is called ‘target’, Greville G. Corbett, *Agreement* (Cambridge: Cambridge University Press, 2006), 4.

5 In this contribution the gender of a plural noun is always determined following the gender of the corresponding singular. Thus, *šawāri‘* is M.PL because the singular *šāri‘* is lexically masculine, and *fawākihu* is F.PL because the singular *fākiha* is lexically feminine. I do not adopt the traditional view that broken plurals are *per se* feminine singular, cf. Wolfdietrich Fischer, *Grammatik des Klassischen Arabisch* (Wiesbaden: Harrassowitz, 21987 [1972]), 49, 64. In fact, this view is an ahistorical overgeneralization of a certain tendency that is incidentally found in the earlier documented stages of Arabic: notably that the broken plural takes a slightly higher rate of deflected agreement than the sound feminine plural controller (Kirk R. Belnap, “Grammatical Agreement Variation in Cairene Arabic” [PhD diss., University of Pennsylvania, 1991], 122-124; Melanie Hanitsch, “Gender Agreement in Qur’anic VSO Verbs with Nonhuman Subjects,” *Zeitschrift für Arabische Linguistik* 76, no. 2 [2022]: 34-35; “The Agreement Hierarchy and Qur’anic Arabic. Part II: The Origin of Deflected Agreement,” *al-Karmil: Dirāsāt fi al-luġha al-‘Arabiyya wa-l-Adab* 43 [2022]: 58-56). As for even earlier stages of the language, there is an ongoing debate about the origin of deflected agreement. The evidence that is circulated in this debate, points to the following: It may well be the case that the emergence of deflected agreement is closely related to the broken plural, but this does not mean that deflected agreement is necessarily the original, let alone the most natural agreement type of the broken plural (cf. Jonathan Owens, “Deflected Agreement and Verb Singular in Arabic. A Three-Stage Historical Model,” *Journal of Semitic Studies* 66 [2021], especially pp. 486-487, 491-492; Hanitsch, “Origin of Deflected Agreement,” 36-56. In fact, if we assume that feminine singular agreement is the “normal” agreement option for a broken plural, we obscure real synchronic agreement patterns and hamper the study of how deflected agreement emerged, evolved, and still evolves over time.

6 Charles A. Ferguson, “Grammatical Agreement in Classical Arabic and the Modern Dialects: A Response to Versteegh’s Pidginization Hypothesis,” *Al-‘Arabiyya* 22 (1989): 9, 11.

However, as we turn to older stages and corpora of the high/literary register of Arabic, such as the Qurʾān, we see that, besides deflected agreement (1), there is another agreement option available with non-rational/inanimate plurals, notably the feminine plural, e.g., (2) or—when the target does not form a feminine plural—the plural of common gender (3).⁷

- (1) *fī ḡannatin ʿāliyatin / qutūfuhā [M.PL] dāniyatun [F.SG]*
‘in a lofty Garden, its clusters nigh to gather.’ (Q 69:22-23)
- (2) *wa-n-nuḡūmu [M.PL] musaḥḥarātun [F.PL] bi-ʾamrihi*
‘and the stars are subjected by His command.’ (Q 16:12)
- (3) *qulūbunā [M.PL] ḡulfun [CG.PL]*
‘our hearts are uncircumcised.’ (Q 2:88)

Keeping with Ferguson’s terminology, we thus have variation between 1) “deflected agreement” (F.SG) and 2) “strict agreement” (F.PL or CG.PL). The latter can be considered “strict” in the sense that, at least with respect to number, the controller (plural) is faithfully reflected in the target (likewise plural). Within Semitic, Arabic is the only language to display full-fledged deflected agreement.⁸ As for the distribution of deflected agreement over the historical stages and corpora of high-register written/literary Arabic (roughly equating what is also termed *Altarabisch*),⁹ Figure 1 shows that it has the

7 Translations of Qurʾānic verses are taken from *The Koran Interpreted: A Translation*, trans. Arthur John Arberry (London [et al.]: Oxford University Press, 1964), if not indicated otherwise.

8 “[T]he systematic F.SG option [in agreement with plural nouns] is an innovation unique to Arabic among the Semitic languages.” (Owens, “Deflected Agreement,” 488), and somewhat more implicitly *ibid.*, “Deflected agreement,” 486. Note, however, that there are marginal attestations of agreement phenomena similar to deflected agreement in Biblical Hebrew and Geez, see Paul Joüon and Takamitsu Muraoka, *A Grammar of Biblical Hebrew* (Rome: Pontificio Istituto Biblico, 2006), 515, 517-519, 521; Gene Gragg, “Geʿez (Ethiopic),” in *The Semitic Languages*, ed. Robert Hetzron (London: Routledge, 1997), 257; cf. also Rebecca Hasselbach, “Agreement and the Development of Gender in Semitic (Part II),” *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 164, no. 2 (2014): 321-323.

9 The term *Altarabisch* is here used in a typological manner to cover those varieties and corpora of Arabic which, by contrast to *Neuarabisch*, typically display a full-fledged system of case and mood endings (cf. Werner Diem, “Vom Altarabischen zum Neuarabischen. Ein neuer Ansatz,” in *Semitic Studies in Honor of Wolf Leslau. On the Occasion of His Eighty-Fifth Birthday, November 14th, 1991*, ed. Alan S. Kaye (Wiesbaden: Harrassowitz, 1991), 1:298; Wolfdietrich Fischer, “Das Altarabische in islamischer Überlieferung: Das Klassische Arabisch,” and “Frühe Zeugnisse des Neuarabischen,” in *Grundriß der Arabischen Philologie. Band I: Sprachwissenschaft*, ed. Wolfdietrich Fischer [Wiesbaden: Harrassowitz, 1982], 37-49, 82). This choice of usage does not imply denying that some manifestations of *Neuarabisch* are very old, nor does it presuppose any linear, schematic, and *en bloc* evolution from *Alt-* to *Neuarabisch* for all of what we call Arabic. In fact, the terms simply serve to conveniently denote two conceptual extremes in a space of possibilities of how an individual variety of Arabic can be shaped

lowest frequency of use in the oldest texts and that it increases in frequency over time until it reaches the abovementioned near to 100% generalization in Modern Standard Arabic. Strict plural agreement, on the other hand, shows exactly the reverse/complementary pattern: It is very common in the oldest texts and then recedes proportionally to the spread of deflected agreement until it becomes virtually absent from Modern Standard Arabic.¹⁰ Both, the position of deflected agreement within Semitic as well as its diachronic pattern of spread has led scholars to conclude that deflected agreement is an innovation of Arabic. It is thought to have emerged sometime prior to the 6th century CE and to have gradually spread into new contexts, thus gaining in frequency of use¹¹—at least as far as the high/literary register of Arabic (*Altarabisch*) is concerned.¹²

(synchrony) and between which the varieties of Arabic have evolved (diachrony) in whatever ways and directions might even be shown by future research.

- 10 Alfred F.L. Beeston, "Some Features of Modern Standard Arabic," *Journal of Semitic Studies* 20 (1975): 65-66; Erhart Kahle, *Studien zur Syntax des Adjektivs im vorklassischen Arabisch* (Erlangen: Lüling, 1975), 124-125, Belnap, "Cairene," 116-131; Kirk R. Belnap and Osama Shabaneh, "Variable Agreement with Nonhuman Controllers in Classical and Modern Standard Arabic," in *Perspectives on Arabic Linguistics: Papers from the Annual Symposium on Arabic Linguistics IV*, ed. Ellen Broselow, Mushira Eid, and John McCarthy (Amsterdam: John Benjamins Publishing Company, 1992), 245-246, 254-255; Kirk R. Belnap and John Gee, "Classical Arabic in Contact: the Transmission to Near Categorical Agreement Patterns," in *Perspectives on Arabic Linguistics: Papers from the Annual Symposium on Arabic Linguistics VI*, ed. Mushira Eid, Vicente Cantarino, and Keith Walters (Amsterdam: John Benjamins Publishing Company, 1994), 126-133, El-Ayoubi, Fischer, and Langer, *Nomen*, 82, 85-87, 398; Hashem El-Ayoubi, Wolfdietrich Fischer, and Michael Langer, *Syntax der arabischen Schriftsprache der Gegenwart. 2: Die Verbalgruppe* (Wiesbaden: Reichert, 2010), 374; Luca D'Anna, "Agreement Patterns with Plural Controllers in the Pre-Islamic Mu'allaqāt," in *Qamariyyāt: oltre ogni frontiera tra letteratura e traduzione. Studi in onore di Isabella Camera d'Afflitto*, ed. Maria Avino, Ada Barbaro, and Monica Ruocco (Roma: Istituto per L'Oriente C. A. Nallino, 2020), 132-134, 144-150, Melanie Hanitsch, "The Agreement Hierarchy and Qur'anic Arabic. Part I: Synchronic Overview and Some Reflections on Diachrony," *al-Karmil: Studies in Arabic Language and Literature* 42 (2021): 60-72; Bettega and D'Anna, *Gender and Number*, 197-259. Despite the measurable differences that exist between corpora from different periods, it should be noted that it has not yet been sufficiently studied how far these differences also depend on matters of genre (poetry vs. rhymed prose, and prose) rather than on plain linguistic change (cf. Manfred Ullmann, "Vorklassisches Arabisch," in *Studi in onore di Francesco Gabrieli nel suo ottantesimo compleanno*, ed. Renato Traini [Roma: Università di Roma "La Sapienza," Dipartimento di Studi Orientali, 1984], 2:807-08, 813, 817; Hanitsch, "Agreement Hierarchy," 39-41).
- 11 Beeston, "Some Features," 65-66; Belnap, "Cairene," 123-126 (somewhat implicitly stated); D'Anna, "Mu'allaqāt," 146-148; Owens, "Deflected Agreement," 486-489, 491-494; Hanitsch, "Origin of Deflected Agreement," 61-67.
- 12 Of course, the innovation has also affected Neo-Arabic including the modern dialects. The degree of its spread and generalization, however, varies greatly across the dialectal continuum, and it seems as if only a few dialects had (more or less) obligatorized it (Ferguson, "Agreement," 11-13; Kristen Brustad, *The Syntax of Spoken Arabic. A Comprehensive Study of Moroccan, Egyptian, Syrian, and Kuwaiti Dialects* (Washington

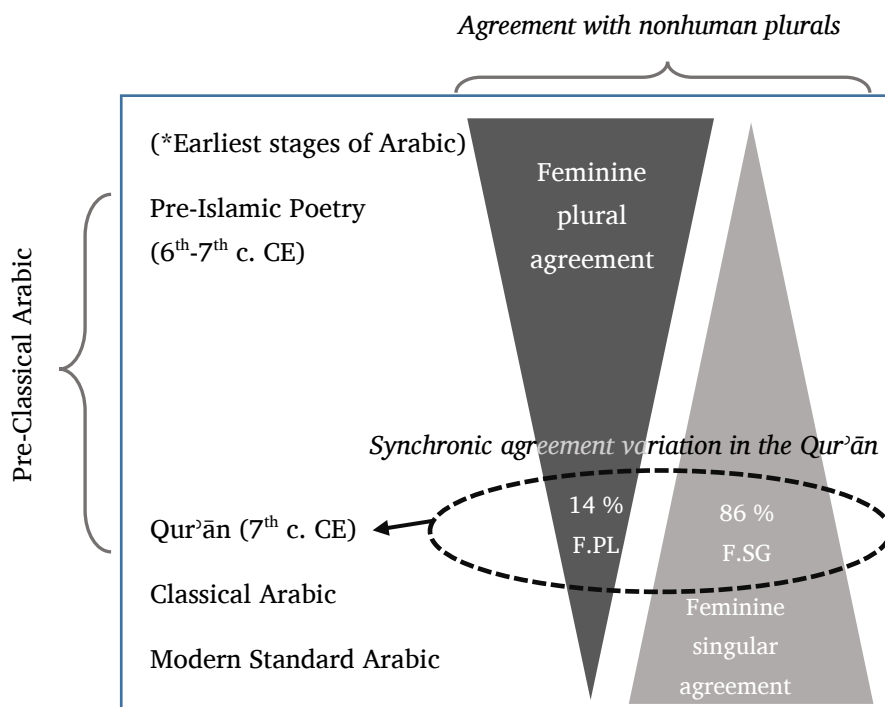


Figure 1: Spread/receding of strict vs. deflected agreement in high-register/literary Arabic¹³

D. C.: Georgetown UP, 2000), 44-62; Melanie Hanitsch, “Kongruenzvariation beim unbelebteten Plural im Neuarabischen: Beobachtungen zum damaszenischen attributiven Adjektiv im Dialektvergleich,” in *Orientalistische Studien zu Sprache und Literatur. Festgabe zum 65. Geburtstag von Werner Diem*, ed. Ulrich Marzolph (Wiesbaden: Harrassowitz, 2011), 148-149. For a recent and detailed overview see chapters 2 and 5 in Bettega and D’Anna, *Gender and Number*.

13 The figure is based on the one that was first published in Melanie Hanitsch, “Angels, Beasts, and Impressive Things. A Radial Category Approach to Qurʾānic Arabic Feminine Plural Agreement” *Journal of Arabic and Islamic Studies* 22 (2022): 52. It relies on the publications given in fn. 10. The percentages indicated are based on the number of tokens of F.PL vs. F.SG as indicated in Hanitsch, *Origin of Deflected Agreement*, 56-57, however without taking other agreement types (e.g., CG.PL, M.PL) into account (see fn. 17 below).

The agreement system of Qur'ānic Arabic is thus representative of a transitional stage in this process. This implies that, synchronically, it displays a notable rate of agreement variation. Table 1 shows an inventory of Qur'ānic Arabic agreement variation with nonhuman plural controllers.¹⁴ Of all targets that agree with a nonhuman plural controller (total targets 1078), 76 tokens (7%) are in the M.SG,¹⁵ 654 (61%) in the F.SG, 108 (10%) in the F.PL, 35 (3%) in the plural of common gender,¹⁶ and 205 (19%) in the M.PL.¹⁷

-
- 14 Only controllers that are inflectionally plural are included. Excluded are any controllers that refer to a “multitude” of entities only by virtue of being a coordination, a dual, collective, or any other construction that can be considered “semantically plural” (e.g., *kull* + singular noun). However, the total of 1078 targets also includes cases where the controller is not made explicit in the text, e.g., the ‘other dry (ears of corn)’ of Q 12:46, or the *fā‘ilāt* forms at the beginnings of Q 51 or Q 77. The reason for including these cases in the database lies in the fact that the difference between agreement with the controller present vs. absent (as one of the criteria of what Corbett calls “canonical vs. less canonical agreement,” cf. Corbett, *Agreement*, 8-27, especially pp. 10-11) is a fluid one; consider *inna lladīna [M.PL] ‘inda rabbika lā yastakbīrūna [M.PL] ‘an ‘ibādatihi* ‘Surely those who are with thy Lord wax not too proud to serve Him’ (Q 7:206) where it is technically impossible to decide whether the verb *yastakbīrūna* is in the M.PL out of “plain” (or “canonical”) agreement with the preceding *lladīna* as its controller, or whether—just as *alladīna*—it takes M.PL form in accordance (or agreement) with the multitude of angels that are here intended without having a nominal expression in the text. Thus, to include or exclude a specific case in/from the database, based on such a distinction, would involve arbitrary decisions. Basically, I treat as agreement any case where the speaker makes himself a choice regarding the gender *and* number of an inflexible element (adjective, predicate, verb, or pronoun), independently of whether that choice is determined by an element in the text, or by referents outside the text (e.g., thought of, implied, pointed at), or both simultaneously.
- 15 Most of these cases are explained by common Arabic neutralized agreement (number, sometimes gender) in verbs preceding their subject, see Hermann Reckendorf, *Arabische Syntax* (Heidelberg: Carl Winters Universitätsbuchhandlung, 2021), 24-25; William Wright, *A Grammar of the Arabic Language* (Beirut: Librairie du Liban, 1996), 1:290-291; Fischer, *Grammatik*, 165, e.g., *fa-sawfa ya’tihim [M.SG] ‘anbā’u [M.PL] mā kānū bihi yastahzi’ūna* ‘but there shall come to them news of that they were mocking’ (Q 6:5).
- 16 With nonhuman plural controllers these are mainly broken plural adjectives, e.g., *kirām* ‘noble [CG.PL]’, and occasionally pronouns that lack a gender distinction in the plural, e.g., *‘ulā’ika* ‘those [CG.PL]’.
- 17 Some of the figures in the target (token) column differ slightly from the ones given in Hanitsch, “Angels, Beasts, and Impressive Things,” 56-57, without, however, yielding a change in percentages. The variation is the consequence of minor reassessments in the sampling procedure (e.g., interpreting whether a specific controller refers to humanoids or humans, the definition of “plurality” in the controller [see §3 below, remark in relation to Q 24:45], and similar tasks). A full account of such modifications, as occurred in the course of my overarching research project on Qur'ānic agreement, will be made available in the appendix of my *Habilitationsschrift*.

Agreement	Specificities of Controller	Target (tokens)	Percentage
M.SG	All nonhuman controllers	76	7%
F.SG	All nonhuman controllers	654	61%
F.PL	All nonhuman controllers	108	10%
CG.PL	All nonhuman controllers	35	3%
M.PL	Angels, humanoids, <i>umam</i> -type	176	19%
	Animals, inanimates	29	
	Total nonhuman controllers	205	
Total		1078	

Table 1: Qur'ānic Arabic agreement variation with nonhuman plural controllers

From mere numbers, it is obvious that in the Qur'ān F.SG agreement has already become the dominant agreement type for nonhuman plurals (61%). However, plural agreement in the feminine or common gender is still well attested (108 + 35 tokens respectively, summing up to 13%) and must be considered a vital agreement option, at this stage of the evolution of the system.

However, besides these three well-studied agreement variants, there appears to be a fourth, well-attested but so far understudied agreement option: the masculine plural. As can be seen in Table 1, the occurrence of masculine plural agreement is rather high, featuring 205 instances (19%) for nonhuman plurals as a whole. As may be guessed, most of these occurrences can be set aside as rather unsurprising insofar as they are instances of agreement with angels (*malā'ika* 'angels',¹⁸ *rusul* 'messengers', *ḥāfiẓūna* 'guardian [angels]', etc.),¹⁹ and similar nonhuman-animate creatures of anthropomorphic conceptualization, i.e., 'āliha (pagan) gods', 'aṣnām 'idols', ṣayāṭīn 'devils', etc. (called "humanoids" in the table), e.g., (4).²⁰ But there is a residue of 29 instances of masculine plural agreement that do not fall in this

18 Translations of single words, as used in the Qur'ān, are taken from John Penrice, *A Dictionary and Glossary of the Korān with Copious Grammatical References and Explanations of the Text* (London: Henry S. King, 1873).

19 The plural *rusul* refers to angels in Q 10:21, and 43:80, among others (see Bernhard Maier, *Koran-Lexikon* [Stuttgart: Kröner, 2001], 42). *ḥāfiẓūna* is used in Q 82:10-12.

20 Traditionally, the anthropomorphic or human-like character of these creatures is subsumed under the concept of rationality. Example (4) shows that with some of these creatures of human-like conceptualization, agreement varies between the thing-like F.SG and the human-like M.PL, cf. also Theodor Nöldeke, *Zur Grammatik des klassischen Arabisch. Im Anhang: Die handschriftlichen Ergänzungen in dem Handexemplar Theodor Nöldekes bearbeitet und mit Zusätzen versehen von Anton Spitaler* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1963 [1897]), 81. This observation justifies keeping "(other) humanoids" apart from other rational beings (angels, humans) in any quantitative or qualitative analysis of Arabic agreement.

category, insofar as their controller is *prima facie* a non-rational or inanimate plural, e.g., (5)-(6). For these, as outlined above, we would usually expect other agreement types to be adopted, notably F.SG ~ F.PL (or CG.PL), e.g., (7)-(10).²¹

- (4) *fa-mā 'ağnat* [F.SG] ‘*anhum 'ālihatuhumu* [M.PL] *llatī* [F.SG] *yad'ūna min dūni llāhi min šay'in lammā ḡā'a 'amru rabbika wa-mā zādūhum* [M.PL] *ḡayra tatbībin*
‘Their gods availed them not that they called upon, apart from God, anything, when the command of thy Lord came; and they increased them not, save in destruction.’ (Q 11:101)
- (5) *fa-zallat* [F.SG] ‘*a'nāquhum* [M/F.PL] *lahā ḡāḏi'ina* [M.PL]
‘so their necks will stay humbled to it.’ (Q 26:4)²²
- (6) *wa-tilka* [F.SG] *l-qurā* [F.PL] ‘*ahlaknāhum* [M.PL] *lammā zalamū* [M.PL] *wa-ḡa'alnā li-mahlīkīhim* [M.PL] *maw'idan*
‘And those cities, We destroyed them when they did evil, and appointed for their destruction a tryst.’ (Q 18:59)
- (7) *wa-la-qad dara'nā li-ḡahannama kaṭīran mina l-ḡinni wa-l-'insi lahum qulūbun* [M.PL] *lā yafqahūna bihā* [F.SG] *wa-lahum 'a'yunun* [F.PL] *lā yubṣirūna bihā* [F.SG] *wa-lahum 'ādānun* [F.PL] *lā yasma'ūna bihā* [F.SG]
‘We have created for Gehenna many jinn and men / they have hearts, but understand not with them / they have eyes, but perceive not with them / they have ears, but they hear not with them.’ (Q 7:179)
- (8) *fī quran* [F.PL] *muḡaṣṣanatīn* [F.SG]
‘in fortified cities’ (Q 59:14)
- (9) *ḡannātīn* [F.PL] *ma'rūṣātīn* [F.PL]
‘gardens trellised’ (Q 6:141)
- (10) *wa-qālū qulūbunā* [M.PL] *ḡulfun* [CG.PL]
‘And they say, 'Our hearts are uncircumcised.’ (Q 2:88)

Cases like (5)-(6) deserve some attention. This is not only because, from a synchronic perspective, they point to an interesting variational phenomenon as such. Above all, these cases are diachronically challenging, because

21 F.SG is, of course, vastly documented. The use of F.PL, on the contrary, is subject to restrictions (cf. Luca D'Anna, “The Influence of Verbal Semantics on Agreement Patterns in Arabic: The Role of Agenthood,” *Annali, Sezione Orientale* 80 (2020): 38-47; Hanitsch, “Agreement Hierarchy,” 61-70; Hanitsch, “Angels, Beasts, and Impressive Things,” *passim*. More specifically, there is not a single instance of a body part term triggering F.PL agreement in the Qur'an (Hanitsch, “Angels, Beasts, and Impressive Things,” 95).

22 Nöldeke gives this passage as an example of what he considers to be personification (Nöldeke, *Zur Grammatik*, 81).

masculine plural agreement with non-rational/inanimate controllers is a common if not widespread phenomenon in Neo-Arabic.

In the Early Middle Arabic papyri corpus studied by Simon Hopkins, for instance, inanimate plurals mostly take plural agreement, and only rarely deflected agreement. The interesting point to note, with regard to our Qurʾānic masculine plurals, is that, in this Early Middle Arabic corpus, plural agreement is by no means restricted to the F.PL or CG.PL (as exemplified in (11) and (13)) that would be in line with the high register/literary language. Rather, M.PL too is a very common agreement option with inanimate plurals (12)-(14). This phenomenon must, of course, be seen in relation to another process that is also a hallmark of Neo-Arabic: the trend for losing the morphological gender distinction in the plural of agreeing elements (pronouns, verbs, and—somewhat delayed—adjectives and participles).²³ For the Early Arabic Papyri, consider (15).²⁴

(11) القرى الخراجيات

‘the *kharājī* [F.PL] villages [F.PL]’ (Hopkins, *Papyri*, 146).

(12) والباقي سبقوا منذ أيام

‘and the remaining (e.g., fields [PL]) have already been (e.g., dealt with) [M.PL] days ago’ (Hopkins, *Papyri*, 146).

(13) أربع قلال صغار للجارية تستقى بهم الماء فأنى أحتاج إليهم

‘four small [CG.PL] jugs [PL] for the servant girl to serve water in [them, M.PL], for I need them [M.PL]’ (Hopkins, *Papyri*, 146).

(14) وتودعهم نار قوية

‘and put them [M.PL] (the ingredients [PL]) on a fierce fire’ (Hopkins, *Papyri*, 146).

23 For the loss of the gender distinction in Arabic dialects in general, see Wolfdietrich Fischer and Otto Jastrow, eds., *Handbuch der arabischen Dialekte. Mit Beiträgen von P. Behnstedt, H. Grotzfeld, B. Ingham, A. Sabuni, P. Schabert, H.-R. Singer, L. Tsotskhadze und M. Woidich* (Wiesbaden: Otto Harrassowitz, 1980), 94; for indications as to the order in which various target types and parts of speech lose the gender distinction in the Arabic dialects, see Bruce Ingham, *North East Arabian Dialects* (London, Boston: Kegan Paul International, 1982), 34, 38-39; Veronika Ritt-Benmimoun, “Agreement with Plural Heads in Tunisian Arabic. The Bedouin South,” in *Tunisian and Libyan Arabic Dialects. Common Trends — Recent Developments — Diachronic Aspects*, ed. Veronika Ritt-Benmimoun (Zaragoza: Prensas de la Universidad de Zaragoza, 2017), 274-276.

24 “A very widespread feature outside the C[lassical] A[rabic] tradition is the suppression of the feminine plural by the masculine” (Simon Hopkins, *Studies in the Grammar of Early Arabic. Based on Papyri Datable to Before 300 A.H./912 A.D.* (Oxford: Oxford University Press, 1984), 92; the examples that Hopkins adduces in this context feature female human controllers only). This is not to say, of course, that there are no Modern Arabic Dialects to have kept the gender distinction (more or less) intact. For gender-distinguishing dialects see Simone Bettega, “Rethinking Agreement in Spoken Arabic: The Question of Gender,” *Annali. Sezione Orientale* 79 (2019): passim.

(15) وكيل هاولاي الاربع نسوة المسمون في هذا الكتاب
 ‘the agent of the four women [F.PL] mentioned [M.PL] in this document’ (Hopkins. *Papyri*, 92).

Looking at the Modern Arabic Dialects with our interest in “M.PL with inanimates/animals” in mind, at least two types of systems can be distinguished: In one type of dialectal system, the process of the loss of the gender distinction is underway, while in the other type of system, the process has been (more or less) completed.²⁵ In the former type of dialects—and similarly to Middle Arabic—we find synchronic agreement variation between feminine plural and masculine plural agreement; consider the dialect of Tetouan (urban North-Moroccan) (16)-(17).²⁶ In the latter type of dialects, plural agreement is generally a M.PL; consider Damascus Arabic (18) where, with inanimates, there is usually only variation M.PL ~ F.SG. In a functional perspective, the masculine plural has, thus, turned into a plural of common gender.

(16) *nuktāt mkallḥāt*
 ‘silly [F.PL] jokes [F.PL]’ (Hanitsch, “Kongruenzvariation,” 148)

(17) *f-n-nhōra l-bārdīn*
 ‘on cold [M.PL] days [M.PL]’ (Hanitsch., “Kongruenzvariation,” 148)

(18) *hal-baraniṭ ḡālyīn (*ḡālyāt)/l-baraniṭ ḡālye (*ḡālyāt)*²⁷
 ‘These hats [F.PL] are expensive [“M.PL” = CG.PL, *F.PL]/Hats [F.PL] are expensive [F.SG, *F.PL]’ (Cowell, *Damascus*, 421)

As we turn back to the issue of Qur’ānic M.PL agreement with inanimates, bearing in mind what was said and illustrated above, regarding the Neo-Arabic situation, we must obviously ask the question of whether the 29 relevant Qur’ānic instances must be interpreted as an early, or emerging Neo-Arabic feature.

25 Hanitsch, “Kongruenzvariation,” 148-149. Examples of dialects that, basically, do have a gender distinction, and yet have begun to make occasional use of the M.PL as a plural of common gender, are Fezzāni (Libya, Luca D’Anna, “Agreement with Plural Controllers in Fezzāni Arabic,” *Folia Orientalia* 54 [2017]: 106-107); Nifzāwa Arabic (Tunisian Bedouin, Ritt-Benmimoun, “Agreement,” 266-267, 283-284), Omani (Simone Bettega, “Agreement Patterns in Omani Arabic: Sociolinguistic Conditioning and Diachronic Development,” *Sociolinguistic Studies* 12 [2018]: 155-156).

26 In Tetouan the loss of the gender distinction of the plural seems to be “ongoing” only for inanimate controllers. With human plurals, the gender distinction has mostly been given up (Hanitsch, “Kongruenzvariation,” 148).

27 The ungrammatical forms in-between brackets are added by myself, based on Mark W. Cowell, *A Reference Grammar of Syrian Arabic. Based on the Dialect of Damascus* (Washington D.C.: Georgetown University Press, 2005 [1964]), 201. Note, however, that Damascus Arabic has a marginal residue of F.PL agreement in the attributive adjective when the controller is a *Pluralis paucitatis* (Cowell, *Damascus*, 201) and/or the adjective a *nisba* adjective (Hanitsch, “Kongruenzvariation,” 146-149).

Of course, there is a major objection that could instantly be made to placing both these phenomena—Qurʾānic M.PL with non-rationals/inanimates, and Neo-Arabic M.PL with non-rationals/inanimates—on one diachronic continuum. This objection is that, unlike in Neo-Arabic, the Qurʾānic cases could be explained as resulting from personification.²⁸ Example (19) may be counted as such a case, and according to the point of view which probably underlies the objection, personification would be considered a stylistic-artistic device, a mere idiosyncrasy that—due to its scarcity of use—is unlikely to lead to (or serve as a model for) any permanent change in linguistic structure.

(19) *'a-wa-lam yaraw 'ilā mā ḥalaqa llāhu min šay'in yatafayya'u [M.SG] zilāluhū [M.PL] 'ani l-yamīni wa-š-šamā'ili suḡḡadan [CG.PL] li-llāhi wahum [M.PL] dāḥirūna [M.PL]*
 'Have they not regarded all things that God has created casting their shadows to the right and to the left, bowing themselves before God in all lowliness?' (Q 16:48)

However, as we give a close look at the whole of the 29 Qurʾānic instances of M.PL agreement, it becomes obvious that personification is far from providing a satisfactory explanation for the choice of M.PL agreement in each and every case.

In the present paper, I will thus submit the relevant Qurʾānic material to a detailed analysis, with the goal of answering the following questions:

- What are the factors that can be identified as favoring or causing the choice of M.PL with inanimate/animal plurals, and how do these factors relate to each other?
- Do the identifiable factors allow us to reach any conclusion regarding the question of whether and how Qurʾānic M.PL with inanimates is related to the analogous Neo-Arabic phenomenon? More specifically: Is Qurʾānic M.PL agreement with inanimate plural controllers an early Neo-Arabic feature?

The analysis will proceed in the following manner, approaching the problem from two angles:

In §2 I will explore whether, from a cross-linguistic/typological perspective, the distribution of Qurʾānic M.PL with inanimates meets the requirements of a newly emerging agreement type. In other words, we will ask the following question: Does M.PL with inanimates “look like” what we would expect a newly emerging agreement type to look like? The objective

28 This is the point of view that seems to underly the treatment of M.PL with non-rationals in the grammars of Classical Arabic (e.g., Nöldeke, *Zur Grammatik*, 81).

of answering this question is achieved by resorting to the agreement hierarchy as an analytic tool—especially to its diachronic implications.²⁹

In §3 a micro-typology of the material is proposed. A fine-grained analysis exposes the factors that, in each and every instance of M.PL with inanimates, account for the “unusual” choice of M.PL. Some diachronic perspectives are also briefly sketched.

In §4 the findings of §2 and 3 are summed up, and an answer to the question of whether and how Qurʾānic M.PL with inanimates relates to Neo-Arabic is proposed.

2. M.PL and the agreement hierarchy

The agreement hierarchy is a typological generalization that relies on the distinction between two fundamental types of agreement: syntactic agreement (or agreement *ad formam*), and semantic agreement (or agreement *ad sensum*). The English standard example for this type of distinction is *the committee has decided*, where the verb agrees in the singular in accordance with the singular form of the controller, vs. *the committee have decided*, with the verb agreeing in the plural in accordance with the “multitude” of humans that is implied in *the committee*. Based on vast cross-linguistic data, the agreement hierarchy formulates the following generalization: If, in a specific language, a noun (or group of nouns) shows variation between syntactic and semantic agreement, syntactic agreement will be most likely to the left of the hierarchy, i.e., in the attribute, and least likely to the right (i.e., in the non-attributive personal pronoun). As for semantic agreement, it will show the reverse pattern: It will be most likely to the right of the hierarchy and least so to the left.³⁰

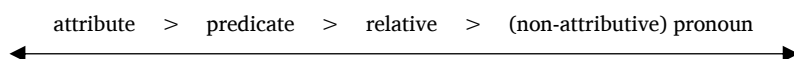


Figure 2: The agreement hierarchy³¹

This is as far as synchrony is concerned. However, the agreement hierarchy also has a diachronic implication, as can be concluded from studies of documented changes in agreement systems: The agreement type that is synchronically—in a specific language—found to be the most frequent to the left of the hierarchy, is usually the older/inherited one, while the agreement type that is most frequent to the right of the hierarchy is usually the younger

29 Greville G. Corbett, “The Agreement Hierarchy,” *Journal of Linguistics* 15 (1979): passim; Corbett, *Agreement*, 206-237.

30 Corbett, “Hierarchy,” 204; Corbett, *Agreement*, 206-207.

31 Corbett, “Hierarchy,” 204.

one—i.e., in the process of spreading across the system.³² We will now see how the Qurʾānic situation relates to these typological generalizations.

The following bar graph (Figure 3) shows the frequency of M.PL agreement with various types of nonhumans (from left to right): 1) angels, 2) other “humanoids” (such as devils, idols, pagan gods, demons), 3) *umam*-type nouns (i.e., plurals the singular of which refers to a group of persons, rather than to a single human/person), 4) animals, and 5) concrete inanimates (“things”).³³

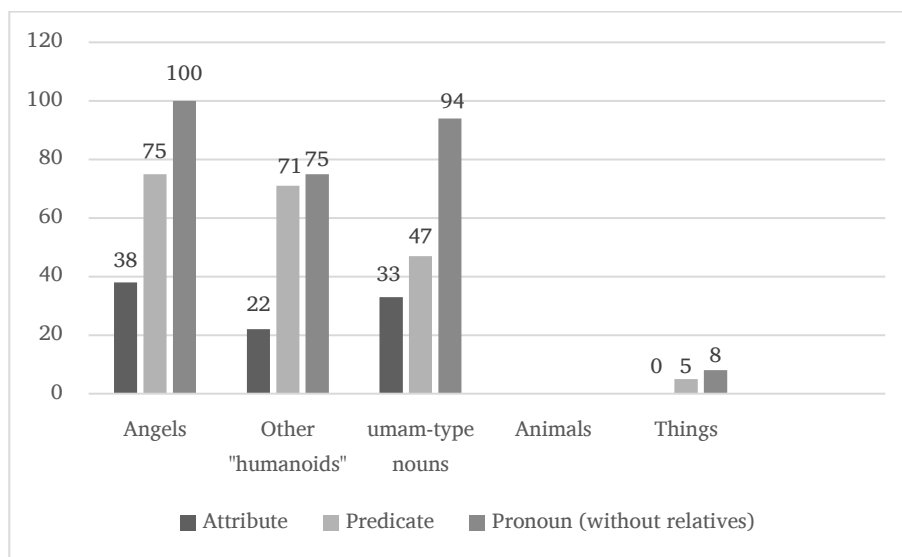


Figure 3: Frequency (%) of M.PL agreement over target types according to animacy degree

For each of these groups, the frequency of M.PL agreement is broken down into three main target types as laid down in the agreement hierarchy: attribute (dark grey), predicate (light grey), personal pronoun (medium grey).³⁴ In the three leftmost groups (angels, humanoids, and *umam*-type), it is evident even to the bare eye that M.PL agreement increases notably in percentual frequency from left to right on the agreement hierarchy—and this

32 Corbett, “Hierarchy,” 218; Corbett, *Agreement*, 270-271.

33 Plural controllers that refer to abstract concepts were omitted from the graph because they are never documented with M.PL agreement in the Qurʾān. A case that mainly refers to concrete animates and inanimates, but distantly involves reference to an abstract concept also, is addressed in §3.4. below (example (35)).

34 Percentages are rounded to the nearest whole number. As we saw above (Figure 2) the agreement hierarchy normally includes one additional position, the relative. In Arabic, however, most relatives are construed attributively and, thus, are included in the attributive position of the hierarchy. As for the few Qurʾānic relative pronouns that refer to nonhuman plurals without being construed attributively, they are too few for meaningful statistical analysis. The relative was therefore omitted from the graph.

increase is also statistically significant.³⁵ In animals, the distribution of M.PL agreement is not visualized and no percentages are indicated. This is because it would be misleading to do so, given the lack of significant correlations within the group.³⁶ In the inanimate plural, however, we have the following remarkable situation: Although the overall level of frequency of M.PL agreement lies well below the levels of the previous groups (we saw that angels and humanoids take a lot of M.PL agreement because they are conceptualized as human-like, which includes the feature of rationality), the general pattern where M.PL increases toward the right of the hierarchy is repeated—at least insofar as there is a very significant increase of frequency between the attribute (no M.PL out of 78 targets, i.e., 0%) and the pronoun (15 M.PL out of 195 targets, 8%, $p = 0.0073$).³⁷ This means that the identification of M.PL as the semantic and probably younger, spreading agreement type holds, not only for “rational beings” (angels, other humanoids, and groups of persons), but also for concrete inanimates.

35 In the present article, statistical significance is always calculated according to Fisher's exact test with the significance level set at $p < 0.05$; Angels: The predicate shows very significantly more M.PL (63 M.PL out of 84 predicates, i.e., 75%) than the attribute (6 cases of M.PL agreement out of a total of 16 attributes, 38%, $p = 0.0062$). The predicate and the pronoun (12 M.PL out of 12 pronouns, i.e., 100%) are on the same level of frequency, as the correlation is not significant ($p = 0.063$). The pronoun has extremely significantly more M.PL than the attribute ($p = 0.0009$). So do predicates and pronouns, grouped, as against the attribute ($p = 0.001$). Humanoids: The predicate shows very significantly more M.PL (39 out of 55, i.e., 71%) than the attribute (2 out of 9, i.e., 22%, $p = 0.0081$). The difference in frequency between predicate and pronoun (24 M.PL out of 32, i.e., 75%) is not significant ($p = 0.8052$), but, again, the extremes of the scale (attribute vs. pronoun) are in a very significant correlation ($p = 0.0065$), as is the attribute against the grouped predicate and pronoun ($p = 0.0046$). *unam*-type: The predicate does not have significantly more M.PL (7 out of 15) than the attribute (1 out of 3, $p = 1.0$), but the pronoun does have significantly more M.PL (17 out of 18, i.e., 94%) than the predicate (47%, $p = 0.0044$) and than the attribute (33%, $p = 0.0414$). The predicate and pronoun grouped, however, do not show significantly more M.PL than the attribute ($p = 0.2157$).

36 Animals: The attribute has 2 instances of M.PL agreement out of a total of 17 targets (Q 7:166, 2:65, if it is correct to identify the targets as attributes, see fn. 48 below). There is no M.PL at all in the predicate (13 total targets) and pronoun (10 total targets; attribute vs. predicate: $p = 0.4920$, predicate vs. pronoun: $p = 1.0$, attribute vs. pronoun ($p = 0.5157$) and attribute vs. predicate-pronoun grouped ($p = 0.1744$). To show percentages for non-significant correlations would suggest representativity, when, in fact, there might be just coincidence.

37 Concrete: The predicate (12 M.PL out of 266 targets) and the pronoun (15 M.PL out of 195 targets) are not in a significant correlation ($p = 0.1640$), but the attribute (0% M.PL) and the grouped predicate-pronoun (59% M.PL) are ($p = 0.0224$). In her study of Qur'ānic attributive agreement, Dror also does not count any case of M.PL agreement with nonhumans at all (Judith Dror, “Adjectival Agreement in the Qur'ān,” *Bulletin d'études orientales* 62 [2014]: 57, 63-68).

As we now proceed to zoom in on agreement with inanimates alone and contrast the distribution of M.PL agreement with the other agreement types that are common with inanimates (Figure 4),³⁸ we see the following trends. M.PL (front row) pairs up with F.SG agreement (middle row) in showing the typical distribution of a younger (or spreading) agreement type: the lowest frequency is found in the attribute (0% for the M.PL, 53% for the F.SG), while a significantly higher³⁹ frequency is found to the right of the scale, i.e. in the predicate and pronoun (6% for the M.PL, and 89% for the F.SG). As for F.PL and CG.PL (back row), they show the typical distribution of older/inherited agreement types that are receding as another new agreement type spreads: the frequency is high in the attribute (47%), and extremely significantly lower ($p = 0.0001$) in the predicative and pronominal targets (5%).

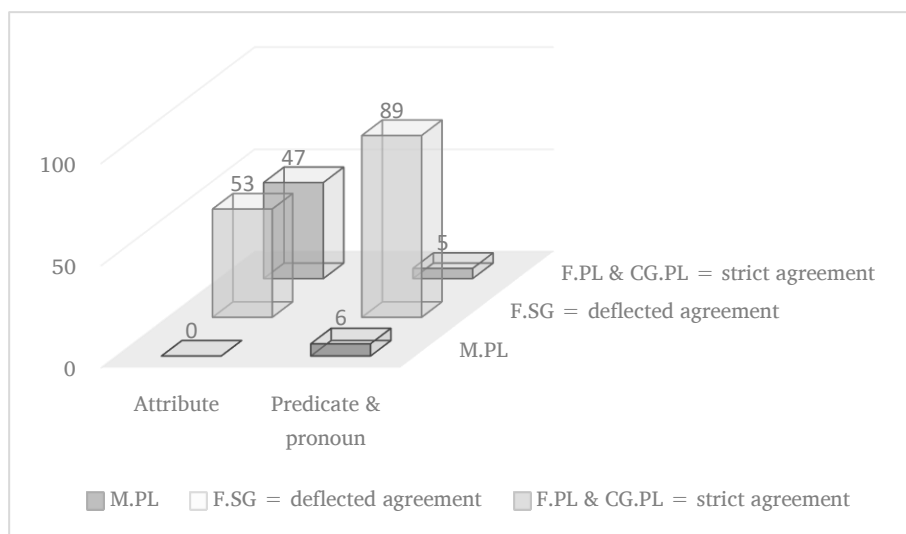


Figure 4: Frequency (%) of agreement types with inanimate concrete plural controllers

These patterns do not in themselves constitute a “proof” of the diachronic process that led up to the synchronic Qur^ʿānic situation. However—based on the cross-linguistic evidence encoded in the agreement hierarchy—the patterns are certainly strong indicators that, besides the already well-established “deflected agreement type,” Qur^ʿānic Arabic has the M.PL as a

38 M.SG agreement was left out of the analysis, as it is marginal with regard to our question (see fn. 15). The statistic thus starts out with a somewhat lower number of targets in agreement with inanimate concrete plurals (517 tokens) than was the case in Figure 3 (539 tokens).

39 For M.PL agreement the increase of frequency from left to right is significant ($p = 0.0222$), and for the F.SG it is even extremely significant ($p = 0.0001$).

second, probably “younger” and just emerging agreement type for inanimate plurals.

The plausibility of this interpretation is enhanced by the Modern Arabic Dialectal situation: Wherever, in a Modern Arabic Dialect, the process of losing the gender distinction in the plural of agreeing elements is ongoing, it seems as if targets that involve a pronominal element (pronouns and finite verbs) were leading the way in this development, while non-finite/nominal targets (participles, adjectives) seem to be more conservative in this regard.⁴⁰ The situation is, thus, roughly in accordance with the cross-linguistic data that originally led to the postulation of the agreement hierarchy (however, more research is needed in the case of Arabic); consider Nifzāwa Arabic (Tunisia, Bedouin South):

(20) *lākin ġaddi hādāy smi‘ b-il-əḥkāya kawna il-‘alālīs [PL] hāk-alla ysūgu fihum*
[M.PL] maḥnōbāt [F.PL]
 ‘But my grandfather had heard about the story that the sheep [PL]
 [that, M.PL] they were driving on were stolen [F.PL].’ (Ritt-Benmimoun, “Agreement,” 274)

While it certainly makes sense to see the dialectal Arabic data as an additional support of the above-expressed view (i.e., that marginal M.PL with inanimates is a newly emerging Qur’ānic agreement type), we must, however, exert some caution when inferring from the Modern dialectal situation to the Qur’ānic one, in regard to the motivation for that very emergence.⁴¹ This is for the following reason: In the Modern Arabic Dialects when we see that masculine plural forms are in the process of superseding feminine plural ones, we are not necessarily witnessing the intra-varietal innovation of a plural of common gender “ex nihilo.” Rather, the most likely motivation for the process observed is contact-induced: a rather conservative dialect that possesses a gender distinction gradually takes over the gender-neutral/common gender forms of a neighboring prestige dialect.⁴² What we thus witness, is not the ongoing grammaticalization of a plural of common gender, but rather a sociolinguistic process: the introduction of a readily grammaticalized plural of common gender through borrowing and leveling.

Thus, when it comes to determining the reasons that led to the emergence of M.PL agreement with inanimates in the Qur’ān (and in Neo-Arabic), the Modern dialects do not seem, at first, to be of much help. For this task, we

40 Ingham, *Arabian Dialects*, 34, 38-39; Ritt-Benmimoun, “Agreement,” 266-267, 283-284; D’Anna, “Fezzāni,” 105-106; Bettega, “Sociolinguistic,” 155-156.

41 Bettega notes that the clarification of “what prompted such morphosyntactic changes in the first place [...] is an issue which has largely been left unaddressed even by those authors who have focused on the topic” (Bettega, “Sociolinguistic,” 156).

42 Judith Rosenhouse, *The Bedouin Arabic Dialects. General Problems and a Close Analysis of North Israel Bedouin Dialects* (Wiesbaden: Harrassowitz, 1984), 272, cited in Ritt-Benmimoun, “Agreement,” 284.

must, instead, turn to a close analysis of relevant material in the earlier stages of the language. This is what we will do for the Qurʾān in the next section.

3. Micro-typology of M.PL material

The 29 Qurʾānic cases that can be analyzed as M.PL agreement with an inanimate plural controller, may be classified into four main types: §3.1. Personification, §3.2. Transformation of humans, §3.3. Metonymic reference to humans, §3.4. “True” M.PL reference to inanimates/animals. Metonymic reference to humans is the largest group, and it splits up into further subclasses (see §3.3.1.-3.3.3).

What is excluded from the overview is the use of M.PL agreement with controllers that are only semantically but not morphologically plural, such as singulars quantified by *kull* (e.g., Q 24:45), or coordinated noun phrases (e.g., 12:4, 21:33). These deserve a careful in-depth study in their own right.⁴³

3.1. Personification

Personification is a special case of metaphor.⁴⁴ With only 4 targets (agreeing with 2 controllers), M.PL use based on personification is only feebly represented. One case, the personification of *zilāl* ‘shadows’ (Q 16:48), was already given as an example in §1, (19). Another case, (21), is found in a Judgment Day scene. Here, it is the skins of “the enemies of God” (ʾaʿdāʾu llāhi) that are personified insofar as they are endowed with the capacity of speech. Consequently, the according verbs (testify, speak) are placed in the M.PL once each.

(21) *wa-yawma yuḥṣaru ʾaʿdāʾu llāhi ʾila n-nāri fa-hum yūzaʿūna / ḥattā ʾidā mā ḡāʾūhā ṣahīdā ʿalayhim samʿuhum wa-ʾabsāruhum wa-ḡulūduhum bi-mā kānū yaʿmalūna / wa-qālū li-ḡulūdihim [M.PL] li-ma ṣahīdum [2.M.PL] ʿalaynā qālū [M.PL] ʾantaqana llāḡu llaḡi ʾantaqa kulla šayʾin wa-huwa ḡalaqakum ʾawwala marratin wa-ʾilayhi turḡaʿūna*

‘Upon the day when God’s enemies are mustered to the Fire, duly disposed, till when they are come to it, their hearing, their eyes and their skins bear witness against them concerning what they have been doing, and they will say to their skins, ‘Why bore you witness against us?’ They shall say, ‘God gave us speech, as He

43 Certain aspects of such cases of M.PL use have received attention in Nöldeke, *Zur Grammatik*, 81, and in D’Anna and Bettega, *Gender and Number*, 211-12, 278-286.

44 George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago, London: The University of Chicago Press, 2003 [1980]), 34.

gave everything speech. He created you the first time, and unto Him you shall be returned.’ (Q 41:19-21)

When the phenomenon of M.PL agreement with inanimates is addressed in the grammars, the concept of personification is usually not kept apart from metonymy. Thus, Nöldeke includes Q 26:4 in his list of personifications,⁴⁵ while in the present overview, we classify it as metonymy (see example (26) below).

3.2. Transformation of humans

In passage 7:163-166, which probably features the reshaping of some biblical and midrashic motives,⁴⁶ God punishes a group of Shabbath desecrators by turning them into apes, see (22).⁴⁷ The participle *ḥāsiʿīna*, which can be read as an attribute to the plural *qirada* ‘apes’, shows M.PL form in accordance with the original human identity of its referents.⁴⁸ Just as personification, transformation of humans is too marginal and idiosyncratic to be of any help in elucidating the problem of Qurʾānic M.PL with inanimates.

(22) *fa-lammā nasū mā ḍukkirū bihī ʾanḡayna llaḍīna yanhawna ʿani s-sūʿi wa-ʾaḡaḍna llaḍīna ḡalamū bi-ʿaḍābin baʿīsin bi-mā kānū yafsuqūna / fa-lammā ʿataw ʿan mā nuḡū ʿanhu qulnā lahum kūnū qiradatan [M.PL] ḡāsiʿīna [M.PL]*

‘So, when they forgot that they were reminded of; We delivered those who were forbidding wickedness, and We seized the evildoers with evil chastisement for their ungodliness. And when they turned in disdain from that forbidding We said to them, ‘Be you apes, miserably slinking!’ (Q 7:165-166)

3.3. Metonymic reference to humans

Metonymy is a figure of speech that consists in the use of an expression *a*, not (only) for reference to the literal referent of *a*, but (also) for reference to

45 Nöldeke, *Zur Grammatik*, 81, also referred to in Rafael Talmon, “Grammar and the Qurʾān,” in *Encyclopaedia of the Qurʾān*, ed. Jane Dammen McAuliffe (Washington DC: Georgetown University, 2001-2006), §13b.

46 Maier, *Koran-Lexikon*, 145; Uri Rubin, ““Become You Apes, Repelled!” (Quran 7:166) The Transformation of the Israelites into Apes and its Biblical and Midrashic Background,” *Bulletin of the School for Oriental and African Studies, University of London* 78, no. 1 (2015): passim; Festschrift für Gerald Hawting.

47 And similarly Q 2:65.

48 Regarding the status of *ḡāsiʿīna* as a *naʿt* of *qirada* ‘apes’, see Muḡammad Maḡmūd al-Qāḍī, *ʾIrāb al-Qurʾān al-karīm bi-riwāyat ḡafṡ ʿan ʿĀṡim aṡrafa ʿalayhi wa-rāḡaʾahu Kamāl Muḡammad Biṡr, ʿAbd al-ḡaffār ḡāmid [al-]ḡalāl [al-Qāhira]: Dār aṡ-ṡaḡwa*, 2010), 341.

another referent *b*, that is related to referent *a* by some type of contiguity relation (spatial, temporal, causal, and others).⁴⁹

An example of how, in the Qurʾān, metonymic reference can lead to M.PL agreement is (23). The plural controller, *quran* ‘cities’ involves a referential ambiguity: At the level of lexical semantics, it is an inanimate plural, because the corresponding singular (*qarya* ‘city’) does not refer to a single human being, but to “a thing” in the broad sense. The identification of *quran* as an inanimate is also backed by the agreement patterns that are commonly observed with this noun: When *quran* simply refers to ‘cities’ (e.g., in its inanimate materiality), it takes F.SG (deflected agreement) just as any inanimate plural (see (24)). But in (23), *quran* additionally refers to the humans that are “contiguous” to the city, in the sense that they are contained or located in it. In Qurʾānic cases like these, the double reference of the controller to “things” as well as to humans is typically hinted at (or introduced), at the contextual level, by lexemes that are equally applicable to both, the literal and the non-literal referent (cf. *ahlaka* ‘destroy, cause to perish’, which is applicable to cities as well as to humans), or to humans only (cf. *zalamā* ‘do wrong’). When a controller has metonymic reference to humans, this may lead to variation in the agreement patterns: We may get F.SG (or F.PL) agreement in accordance with the inanimate character of the literal referent(s) (cf. *tilka* in example (23)), or M.PL agreement in accordance with the secondary, metonymic, human referents (cf. *zalamū*).

(23) *wa-tilka* [F.SG] *l-qurā* [F.PL] *ahlaknāhum* [M.PL] *lammā zalamū* [M.PL]
wa-ḡaʿalnā li-mahlikihim [M.PL] *mawʿidan*
 ‘And those cities, We destroyed them when they did evil, and appointed for their destruction a tryst.’ (Q 18:59)

(24) *fi quran* [F.PL] *muḥaṣṣanatin* [F.SG]
 ‘in fortified cities.’ (Q 59:14)

Qurʾānic M.PL agreement as a reflex (or consequence) of metonymic reference to humans splits up into two main types: Type I: Pars-pro-toto metonymy, and Type II: Container-contained metonymy.⁵⁰ In addition, there is a group of “borderline cases” (Type III) that cuts across the two main types.

49 Hadumod Bußmann, ed., *Lexikon der Sprachwissenschaft* (Stuttgart: Alfred Kröner Verlag, 2002 [1983]), 434; Peter Koch, “The Pervasiveness of Contiguity and Metonymy in Semantic Change,” in *Current Methods in Historical Semantics*, ed. Kathryn Allan, Justyna A. Robinson (Berlin, Boston: De Gruyter Mouton, 2012), 259-261, 268-269. On the necessity of telling apart personification (as a special type of metaphor) and metonymy, see Lakoff and Johnson, *Metaphors*, 36-38.

50 For lists of frequent types of metonymies, see Lakoff and Johnson, *Metaphors*, 39, Koch, “Contiguity,” 269.

3.3.1. Type I: Pars-pro-toto metonymy

In this group, the relation of contiguity that underlies the metonymic expression is that between a part *a* and the whole *b*. With regard to Qurʾānic M.PL with inanimates, this type of metonymy is found exclusively with controllers that—lexically, or literally—refer to body-parts, but secondarily/by metonymy to the humans to whom the body-parts belong. The following nouns are documented as controllers of M.PL targets: *ʾaḥida* ‘hearts’ (Q 6:113, 104:6-8), *qulūb* ‘hearts’ (Q 8:63, 40:18), *ṣudūr* ‘bosoms, breasts’ (Q 27:74, 28:69), *ʾaʿnāq* ‘necks’ (Q 26:4), *wuġūh* ‘faces’ (Q 80:38-42, 88:1-6). Consider example (25):

- (25) *hal ʾatāka ḥadiṭu l-ġāšiyati / wuġūhun [M.PL] yawmaʾidīn ḥāšīʾatun [F.SG] / ʾāmilatun [F.SG] nāšibatun [F.SG] / taṣlā [F.SG] nāran ḥāmiyatan / tusqā [F.SG] min ʾaynin ʾāniyatin / laysa lahum [M.PL] ṭaʿāmun ʾillā min ḍarīʿin*
 ‘Hast thou received the story of the Enveloper? / Faces on that day humbled, labouring, toilworn, roasting at a scorching fire, / watered at a boiling fountain, no food for them but cactus thorn, unfattening, unappeasing hunger.’ (Q 88:1-6)

With regard to agreement the following may be noted: The passage shows a sequence of six targets in agreement with the body-part term *wuġūh* ‘faces’. The first five targets take F.SG agreement in accordance with the inanimate, or thing-like semantics of the controller lexeme, i.e., ‘faces’ in the anatomic sense. However, the faces are also used as a stylistic device, insofar as they refer pars-pro-toto to their human “owners” (or bearers), i.e., to those that are going to be punished and tormented in hell on Judgement Day—which is the “actual” topic of the sequence. This secondary reference of *wuġūh* is made explicit when the sequence culminates in the sixth and last target of the sequence, where agreement switches from “syntactic” F.SG agreement to “semantic” M.PL agreement.⁵¹ It is the switch as such that renders the underlying human reference of the whole sequence explicit. A very similar passage, that likewise involves *wuġūh* ‘faces’, is Q 80:38-42.

A switch to “semantic” M.PL agreement is not necessarily restricted to the end or culminating point of longer metonymic sequences. It may as well occur

51 We saw above (Figure 4), that in the overall picture, both F.SG and M.PL agreement must be classified as semantic agreement types with regard to Qurʾānic inanimate plurals. But when it comes to agreement variation/alternation between both these semantic agreement types, it looks as if—in relation to each other—F.SG was “more” syntactical than M.PL. This is because, with a frequency of 61%, it is already well established as the unmarked (or default) agreement type for inanimate plurals. It is, thus, often selected automatically, i.e., without any additional meaning conveyed (as we would usually expect of a full-fledged semantic agreement type). In regard to the complex issue and the methodology of attributing the labels syntactic vs. semantic agreement in Arabic, see the discussion in Hanitsch, “Agreement Hierarchy,” 47-50.

closer by the controller, as is illustrated in (26)-(27). In both cases, M.PL agreement in accordance with the human owners of the body parts seems to be additionally favored by the insertion—between controller and target—of a M.PL possessive pronoun that also refers to the owner of the body parts. We thus have a case of priming or agreement attraction.⁵² This is what probably favors the occurrence of M.PL even closer to the controller than was the case in the previous examples.

(26) *fa-ḡallat [F.SG] ʾaʿnāquhum [M/F.PL] lahā ḡāḡiʿina [M.PL]*

‘so their necks will stay humbled to it.’ (Q 26:4)⁵³

(27) *wa-ʾallafa bayna qulūbihim law ʾanfaḡta mā fi l-ʾarḡi ḡamiʿan mā ʾallafta bayna qulūbihim [M.PL] wa-lākinna llāha ʾallafa baynahum [M.PL] ʾinnahū ʿazizun ḡakimun*

‘[...] and brought their hearts together. Hadst thou expended all that is in the earth, thou couldst not have brought their hearts together; but God brought their hearts together; surely He is All-mighty, All-wise.’ (Q 8:63)

Finally, we also have cases where M.PL agreement occurs close by the controller without any priming element present. Consider (28)-(29), where the implicit human reference of the body-part-term is the only factor that licenses the use of M.PL in the following target—and by the same token renders its reference retrievable to the hearer.

(28) *wa-ʾandirhum yawma l-ʾāzifati ʾiḡi l-qulūbu [M.PL] lada l-ḡanāḡiri kāzimīna [M.PL] mā li-z-ḡālimīna min ḡamimin wa-lā ṡafiʿin yuḡāʿu*

‘And warn them against the Day of the Imminent when, choking with anguish, the hearts are in the throats and the evildoers have not one loyal friend, no intercessor to be heeded.’ (Q 40:18)

(29) *wa-mā ʾadrāka ma l-ḡuḡamatu / nāru llāhi l-mūqadatu / llati taḡḡaliʿu ʿala l-ʾafʾidati [M.PL] / ʾinnahā ʿalayhim [M.PL] muʾṡadatan*

‘[A]nd what shall teach thee what is the Crusher; The Fire of God kindled roaring over the hearts covered down upon them, in columns outstretched.’ (Q 104:5-8)

3.3.2. Type II: Container-contained metonymy

In this group, the relation of contiguity that underlies the metonymic expression is that between a container *a* and the things/contained in it *b*, or (as a variant) between a location *a* and the things/beings located in it *b*.

52 According to al-Kisāʿī “the pronoun in *ḡāḡiʿina* [in Q 26:4] resum[es] human plurality of *-hum* in *aʿnāquhum*” (Talmon, “Grammar,” §13b, following Abū Zakaryā Yaḡyā b. Ziyād al-Farrāʾ, *Maʿāni al-Qurʾān*, vol 2, ed. Muḡammad ʿAlī an-Naḡḡār [al-Qāhira 1955: Dār al-Kutub al-Miṡriya], 276-277. Regarding the role of priming in Arabic agreement variation, see Belnap, “Cairene,” 91-93 (Cairene Arabic).

53 Nöldeke gives this passage as an example of what he considers to be personification (Nöldeke, *Zur Grammatik*, 81).

With regard to Qurʾānic M.PL with inanimates, this type of metonymy is found with two lexemes that refer—lexically, or literally—to a vehicle (*ḡawārin* ‘ships’ (30)) or a city (*quran* ‘cities’ (31)),⁵⁴ and secondarily/by metonymy to the humans in/on the ship and in the city.

(30) *wa-min ʾāyātihi l-ḡawāri* [F.PL] *fi l-baḥri ka-l-ʾaʿlāmi* / *ʾin yašaʾ yuskini r-riḥa fa-yaẓlalna* [F.PL] *rawākida* [F.PL] *ʾalā ẓahrihi ʾinna fi dālika la-ʾāyātin li-kulli ṣabbārin šakūrin* / *ʾaw yūbiḡhunna* [F.PL] *bi-mā kasabū* [M.PL]

‘And of His signs are the ships [F.PL] that run on the sea like landmarks / and if He wills, He stills the wind, and they remain [F.PL] motionless [F.PL] on its back. Surely in that are signs for every man enduring, thankful. / Or He wrecks them [F.PL] for what they [M.PL, i.e., the people on the boat] have earned.’ (Q 42:32-34)

(31) *wa-tilka* [F.SG] *l-qurā* [F.PL] *ʾahlaknāhum* [M.PL] *lammā ẓalamū* [M.PL] *wa-ḡaʿalnā li-mahlīkīhim* [M.PL] *mawʿidan*

‘And those cities, We destroyed them when they did evil, and appointed for their destruction a tryst.’ (Q 18:59)

Of the examples in this group, (30) is also structurally analogous to (25) (which was the first example of a pars-pro-toto metonymy that we saw). In (30), too, there is a long sequence of targets in agreement with one and the same controller, notably *ḡawārin* ‘ships’. Out of this sequence, the first few targets are in the F.PL as one of the two commonly available agreement options for inanimate plurals.⁵⁵ In the last target, however, there is a switch to M.PL. This switch points to the humans whose sins are the cause of God sinking the ships in the first place. Technically, the switch—and thereby the use of a M.PL pronoun without explicit mention of the referred-to humans—is rendered possible precisely thanks to the metonymic relationship that exists

54 Additional instances of *quran* ‘cities’ are Q 7:101, and 28:59.

55 While in pre-Islamic poetry F.PL agreement is still used extensively with nonhuman plural controllers (Belnap, “Cairene,” 122-126; Belnap and Gee, “Classical Arabic,” 127-132; Kahle, *Adjektiv*, 124-125; Bettega and D’Anna, *Gender and Number*, 205-209), in the Qurʾān, it has become specialized to the use with large/impressive, often autonomously moving—and therefore animate-seeming—entities; this, of course, applies perfectly to ships (see Hanitsch, “Angels, Beasts, and Impressive Things,” 70-72, 77, 82, and especially 84 where I relate the phenomenon to the anthropological concept of other-than-human personhood, cf. Alfred Irving Hallowell, “Ojibwa Ontology, Behavior, and World View,” in *Culture in History: Essays in Honor of Paul Radin*, ed. Stanley Diamond (New York: Columbia University Press, 1960), 21-25; Graham Harvey, *Animism. Respecting the Living World* (London: Hurst, 2005), XVII, Anna Perdibon, *Mountains and Trees, Rivers and Springs. Animistic Beliefs and Practices in Ancient Mesopotamian Religion* (Wiesbaden: Harrassowitz, 2019), 20, 27. For an account of agenthood in the use of Qurʾānic F.PL with nonhumans, see D’Anna, “Agenthood,” 38-47.

between the ship as a container *a*, to the people contained *b*. In a way, the double reference that results from metonymy assures continuous retrievability of reference all along the passage, and thereby assures the cohesion of the passage.

For an example of a container-contained metonymy where the M.PL stands close to the metonymic controller without any priming element intervening, see example (23) above. For Middle Arabic and Modern Dialectal Arabic parallels to the Qur^ānic container-contained metonymies, consider (32)-(33) respectively.

(32) انك اخذت قرا في ارضك بالذى عليهم من الجزية(32)
 ‘that you have fined some of the villages [PL] in your district because of the taxes due from them [M.PL]’ (Hopkins, *Papyri*, 146).

(33) *ansawwi al‘aši, kull albalād iyan*
 ‘We used to make dinner, all women came (literally: the whole village [SG] came [F.PL]).’ (Snāw, Oman, Bettina Leitner, unpublished data).⁵⁶

3.3.3. Type III: Borderline cases

To both previous groups, the pars-pro-toto-metonymies and the container-contained metonymies, a number of cases can be added that I would like to call borderline cases. They are borderline insofar as, from a joint syntactic-semantic perspective, there is more than one noun (phrase) present in the context that can be regarded as having an agreement determining effect on the M.PL target in question—and one of these two consists of an inanimate plural noun. Consider (34):⁵⁷

(34) *‘inna lladīna ‘āmanū wa-‘amilū s-šālihāti ‘innā lā nuḏī‘u ‘ağra man ‘aḥsana*
‘amalan / ‘ulā‘ika lahum ġannātu ‘adnin [F.PL] tağri min taḥtihimu [M.PL]
l-‘anhāru yuḥallawna fiḥā [F.SG] min ‘asāwira min ḍahabin wa-yalbasūna

56 I would like to thank Bettina Leitner for sharing this unpublished data with me. The speaker is an approximately 50-year-old woman, a mother of several children, who is describing traditions around childbirth. A hint to a similar example from Khuzestani Arabic where *byūt* ‘houses’ attracts M.PL agreement in accordance with “the people and families who inhabit the actual buildings” is given in Simone Bettega and Bettina Leitner, “Agreement Patterns in Khuzestani Arabic,” *Wiener Zeitschrift für die Kunde des Morgenlandes* 109 (2019): 21, fn. 17. Bettega and D’Anna, *Gender and Number*, 90-91, fn. 63 adduce another similar example from Saad Abdullah Sowayan, *The Arabian Oral Historical Narrative* (Wiesbaden: Harrassowitz, 1992), 92. The latter, however, is somewhat ambiguous: It could well be that M.PL agreement has *byūt* ‘tents’ as a controller while referring “to the actual inhabitants of the encampment” (Bettega and D’Anna, *Gender and Number*, 90). But another possibility of interpretation is that the M.PL refers *ad sensum* the members of the tribe mentioned (*aš-šarāh*).

57 Other, similar examples are Q 27:74 (*ṣudūr*), 28:69 (*ṣudūr*), 6:113 (*‘afīda*).

ṭiyāban ḥuḍran min sundusin wa-ʾistabraḡin muttakiʾina fihā [F.SG] ʿalā l-ʾarāʾiki niʿma ṭ-ṭawābu wa-ḥasunāt murtafaḡan
 ‘Surely those who believe, and do deeds of righteousness—surely We leave not to waste the wage of him who does good works; those—theirs shall be Gardens of Eden, underneath which rivers flow; therein they shall be adorned with bracelets of gold, and they shall be robed in green garments of silk and brocade, therein reclining upon couches—O, how excellent a reward! And O, how fair a resting-place!’ (Q 18:30-31)

From a straightforward syntactic point of view, the use of a M.PL anaphoric pronoun (*taḥṭihimu*) in what could be analyzed as an asyndetic relative clause (*taḡrī min taḥṭihimu [M.PL] l-ʾanhāru*) with an inanimate plural antecedent (*ḡannātu ʿadnin*), comes as a surprise. This is all the more intriguing as the Qurʾān displays as many as 31 parallel passages where the only difference with the present one is, precisely, that the anaphoric pronoun is in the F.SG instead of M.PL, e.g., *ḡannātu [F.PL] ʿadnin taḡrī min taḥṭiha [F.SG] l-ʾanhāru* (Q 98:8).⁵⁸ In all these formulaic parallel passages the anaphoric pronoun clearly refers back to the gardens. How come, then, that in Q 18:31 we have a M.PL? The standard way of accounting for this situation is to assume that the anaphoric pronoun refers one step further back in the text, i.e., to *ʾulāʾika*.⁵⁹ In terms of syntactic and deictic relations, we thus get a rather complex situation. This is where, once again, metonymy must be assumed to be at play in clarifying the syntactic relations and thus granting the coherence of the passage: The gardens (*ḡannātu*) are the location/container where ‘those who believe’ (*allaḡīna ʾāmanū*) are located/contained. I would go as far as to claim that the abrupt switch to M.PL in an anaphoric pronoun which—on behalf of the Qurʾānic hearer—may be spontaneously interpreted as referring to the immediately preceding gardens (by relying on the most common syntactic structures, and also because of the experiential weight of the 31 parallel formulae where this is the case!), is only possible because that very “primary” or “syntactic” controller *ḡannāt* is a place/container/location. It metonymically implies the previously mentioned persons and thus refers the hearer to seeking the reference of the M.PL pronoun in those very persons, i.e., in (*a*)*llaḡīna ʾāmanū [...]* *ʾulāʾika* as a “secondary” or “semantic” controller.

58 The parallel passages contain either *ḡannāt ʿadn* as a controller (Q 16:31, 20:76) or just *ḡannāt* (Q 2:25, 3:15, 136, 195, 198, 4:13, 57, 122, 5:12, 85, 119, 9:72, 9:89, 14:23, 22:14, 23, 25:10, 47:12, 48:5, 48:17, 57:12, 58:22, 61:12, 64:9, 65:11, 66:8, 85:11). Occasionally there will also be a slight variation in phrasing (Q 16:31, 9:100), as compared to the example given in the main text.

59 Abū Ḡaʿfar Muḥammad b. Ḡarīr aṭ-Ṭabarī, *Tafsīr aṭ-Ṭabarī. Ḡāmiʿ al-Bayān ʿan Taʾwīl Āy al-Qurʾān*, ed. ʿAbd Allāh b. ʿAbd al-Muḥsin at-Turkī, 25 vols. (al-Qāhira: Dār Ḥaḡr, 2001), 15:254-255.

Let us sum up the use of M.PL in metonymic contexts: Due to the double inanimate-human reference involved, metonymy has the effect of assuring reference retrieval. Thereby it also grants syntactic flexibility, i.e., the humans do not have to be made explicit through a noun phrase of literally and unambiguously human reference. By the same token, metonymy favors the occurrence of M.PL targets (without an unambiguously human controller of their own) in the immediate vicinity of inanimate plurals. Once such a construction results, we get an environment where the juxtaposition of an inanimate plural with a M.PL pronoun (or any other target) can be reanalyzed as a plain agreement relation. This situation then gives rise to M.PL agreement with inanimate plurals, as we know it from Neo-Arabic.

3.4. True masculine plural reference to inanimates/animals

All M.PL targets that were treated so far had “something to do with humans:” Either the controller referent was personified in the sense of anthropomorphized (§3.1.), or the controller referred to animals into which some humans were transformed (§3.2.), or the inanimate controller additionally referred to humans by metonymy (§3.3.). This section is concerned with the few Qur’ānic instances where a M.PL target occurs without any direct and obvious “mediating role” of humans.

The phenomenon concerns a handful of targets in a passage of Sura 2 where God teaches Adam the names of all things created (35).

(35) *wa-‘allama ‘ādama l-‘asmā’a [M.PL] kullahā [F.SG] tumma ‘araḍahum [M.PL] ‘ala l-malā’ikati fa-qāla ‘anbi’ūni bi-‘asmā’i hā’ulā’i [CG.PL] ‘in kuntum ṣādiqīna / qālū subḥānaka lā ‘ilma lanā ‘illā mā ‘allamtanā ‘innaka ‘anta l-‘alimu l-ḥakīmu / qāla yā-‘ādamu ‘anbi’hum bi-‘asmā’ihim [M.PL] fa-lammā ‘anba’ahum bi-‘asmā’ihim [M.PL] qāla ‘a-lam ‘aql lakum ‘inni ‘a‘lamu ḡayba s-samāwāti wa-l-‘arḍi wa-‘alamu mā tubdūna wa-mā kuntum taktumūna*

‘And He taught Adam the names, all of them; then He presented them unto the angels and said, ‘Now tell Me the names of these if you speak truly.’ They said, ‘Glory be to Thee! We know not save what Thou hast taught us. Surely Thou art the All-knowing, the All-wise.’ He said, ‘Adam, tell them their names.’ And when he had told them their names He said, ‘Did I not tell you I know the unseen things of the heavens and earth? And I know what things you reveal, and what you were hiding.’ (Q 2:31-33)

The plural noun phrase (a)l-‘asmā’a kullahā ‘the names, all of them’ introduces an implicit (possibly metonymic) reference to the things or beings named. In the following sentence, these things are referred to by the pronoun -hum in ‘araḍahum. Then God’s direct speech to the angels is cited. Here, He refers to those things/beings by a CG.PL demonstrative hā’ulā’i. Then God orders Adam to tell “their names,” again using a M.PL possessive

pronoun to refer to “the things/beings named” (*ʿanbiʿhum bi-ʿasmāʾihim*). The phrase is repeated stating that Adam executed the order (*ʿanbaʿahum bi-ʿasmāʾihim*).

In this passage, the M.PL does not go back to humans in any obvious or straightforward way, since at this point in the chronology of creation there are probably no humans on Earth apart from Adam.⁶⁰ As a matter of fact, a good number of those earlier authorities that are cited in aṭ-Ṭabarī’s *Tafsīr* (*Ġāmiʿ al-Bayān*, 9th century), consider that God taught Adam the names of all kinds of animals and things (i.e., non-rationals). They do not seem to feel a problem regarding the M.PL agreement. It makes sense to assume that the M.PL felt natural to some hearers because, in the specific context at hand, there is a very general or generic reference to the *totality* of what is on earth, and no *specific textual reference* to anything inanimate or non-rational present. Others among the authorities that are referred to in aṭ-Ṭabarī include humans or Jinn in the enumeration of the “things” named, however without addressing the abovementioned “problem of chronology”⁶¹ (i.e., of how come humankind was already there to be presented to the angels, as is suggested by *tumma ʿaradāhum*). Finally, there are authorities who take a slightly prescriptive point of view, insisting that reference must here be to angels or to Adam’s offspring, because M.PL would not otherwise be admissible.

It is not before az-Zamaḥṣarī’s *Kaššāf* (12th century) and ar-Rāzī’s *Mafātīḥ al-Ġayb* (12th century) that the issue is addressed in a more elaborate way by resorting to the concept of animacy resolution:⁶² Since Adam is taught ‘all the names’ (*al-ʿasmāʾa kullahā*) it is only natural to assume that they were not only the names of animals and inanimates, but also of angels and *ġinn*—thus of some rational nonhuman beings as well.⁶³ As a consequence, the multitude of names taught to Adam is heterogeneous (or unspecific) with regard to the “rationality” of the named ones (or, in our terms, their animacy degree). This situation is analogous to a more widespread type of gender resolution, i.e., the “generic masculine,” which consists in the use of a M.PL in reference to a mixed-gender group of humans, in a system where the gender distinction (M.PL vs. F.PL) is basically preserved. Thus, in Q 2:31-33 we get what, by analogy, may be called a “generic (animacy) plural”: The specific plural of (male) humans (M.PL) is used to refer to mixed-animacy plurals in a system where, basically, there is (still) an agreement relevant animacy distinction

60 This point is also raised by Bettega and D’Anna, *Gender and Number*, 211-212.

61 aṭ-Ṭabarī, *Ġāmiʿ al-Bayān*, 1:514-522.

62 What I here call animacy resolution is treated as a part of gender resolution in Corbett, *Agreement*, 243-251.

63 Abū l-Qāsim Maḥmūd b. ʿUmar az-Zamaḥṣarī, *al-Kaššāf ʿan ḥaqāʾiq ḡawāmiḍ at-tanzil wa-ʿuyūn al-ʿaqāwīl fī wuġūh at-taʾwīl*, eds. ʿĀdil Aḥmad ʿAbd al-Mawġūd, ʿAlī Muḥammad Muʿawwad. 6 vols. (ar-Riyāḍ: Maktabat al-ʿUbaykān [Obeikan Bookstore], 1998), 1:253; Abū ʿAbd Allāh Muḥammad b. ʿUmar Fakḥr ad-Dīn ar-Rāzī, *at-Tafsīr al-Kabīr wa-Mafātīḥ al-Ġayb*, 32 vols. ([Bayrūt]: Dār al-Fikr, 1981), 2:192.

preserved.⁶⁴ This explanation of the puzzling M.PL of Q 2:31-33—as hinted at in the Tafāsīr—should not be disposed of too easily as a mere strategy for “explaining away” an obvious grammatical problem.⁶⁵ As a matter of fact, there even is cross-linguistic evidence that, in languages with agreement relevant animacy distinctions, one strategy for coping with mixed-animacy groups is to resort to the type of plural that is associated with the higher animacy degree involved.⁶⁶ Moreover, the Qurʾān displays other irregularities of the kind that conflates specific distinctions in agreement with non-plural nouns, notably the marginal blurring of the dual-plural distinction.⁶⁷

Another striking characteristic of the ʾasmāʾ passage is that there is no clearly and unambiguously expressed controller present (no nominal mention of specific things, animals, angels, or *ǧinn*).⁶⁸ Instead, just as in most cases that were discussed in 3.3., the referents of the M.PL targets are hinted at, vaguely metonymously, by a preceding noun phrase, notably *al-ʾasmāʾa*.

The ʾasmāʾ passage thus combines a number of “extreme” characteristics: 1.) generic reference to a mixed-animacy group, 2.) controller not expressed at textual level, 3.) presence of an inanimate noun that, by metonymy, hints at the otherwise unexpressed referents. The combination of these peculiarities yields a structure, that looks like a representative of the perfect source construction for the next step in the evolution of the Arabic agreement system to happen:

- Reanalysis of the M.PL pronouns as agreeing “the canonical way” with the preceding noun phrase (*al-ʾasmāʾa*),
- thereby turning M.PL into a “normal” agreement option with non-rationals/inanimates (grammaticalization),
- resulting in what—by analogy with the Neo-Arabic “plural of common gender”—may be called a “plural of common animacy degree.”

To sum up, the way in which M.PL pronouns are used in the ʾasmāʾ passage (Q 2:31-33) does not represent a proper Neo-Arabic M.PL with inanimates yet. But we may well consider it to be—structurally and typologically—a

64 I.e., humans and other rational beings normally take PL (according to their gender) while non-rational nonhuman animates and inanimates take F.SG ~ F.PL (CG.PL).

65 As it seems to be the case with Bettega and D’Anna, *Gender and Number*, 212 with regard to a similar explanation in the *Tafsīr al-Ġalālayn*.

66 Cf. the case of Godoberi, a Caucasian language, in Corbett, *Agreement*, 245-247.

67 Notably, two instances of curious F.PL agreement (*fihinna* in Q 55:56 and 55:70), where the respective controllers are inanimate duals (twice *ǧannatāni/-ayni* ‘two [Paradise] gardens’, in Q 55:46/54, and 62 respectively), cf. Melanie Hanitsch, “Two Gardens Therein Maidens – Does the Qurʾān Present Evidence for the Beginning of the Loss of the Dual?” (Qurʾānic Linguistics Research Group Inaugural Conference, Swansea University – SOAS Centre of Islamic Studies, University of London, via Zoom, March 15, 2023).

68 For Bettega and D’Anna (*Gender and Number*, 212) this is one of the main reasons that lead, in a few instances in the Qurʾān, to the replacement of F.SG by M.PL.

potential and immediate precursor of the phenomenon.⁶⁹ In fact, the passage gives us a hint as to how, i.e., by which motivations and in which type of contexts, the common Neo-Arabic process of losing gender *and* animacy distinctions in agreement with nonhuman controllers could have been launched.

4. Summary and conclusion

The Qurʾān contains 29 cases of what can be considered as M.PL agreement with non-rational controllers (i.e., animals and inanimates, e.g., *fa-ḡallat ʿaʿnāquhum lahā ḡādīʿina*). The phenomenon bears several traits that are reminiscent of Neo-Arabic, where M.PL with inanimates is widespread. Firstly, there is application of a typically “human agreement” type (M.PL) to inanimates; secondly, there is replacement of the feminine gender by the masculine gender, which in Neo-Arabic has happened and is still happening on a larger scale (cf. the loss of the gender distinction in plural targets). Given that the Neo-Arabic M.PL with inanimates is also well attested soon after the rise of Islam (early Arabic papyri datable to before 912 C.E.), it is incumbent to ask whether Qurʾānic M.PL with inanimates is a very early representative of a Neo-Arabic feature. A possible objection to such an assumption is that, contrary to the Neo-Arabic use of M.PL, the Qurʾānic use is simply the result of personification. This objection is easily refuted, as only 4 out of the 29 Qurʾānic occurrences involve personification in the strict sense (a type of metaphor). This leaves us with the question as to what are the reasons for the use of M.PL instead. And in how far can the answer to this question help elucidate the problem of whether Qurʾānic M.PL with inanimates is, or is not, an early Neo-Arabic feature?

In order to answer these two, intricately related questions we approach the description of the material from two angles: 1) Statistical analysis of the

69 Bettega and D’Anna (*Gender and Number*, 212) note that the ʿasmāʾ passage, as well as Q 24:45 and Q 21:33, “seem to represent the first (and very limited) instances of a situation that is also found in contemporary dialects”. However, their account of the motivation for the emergence of the phenomenon remains vague. As for Q 24:45 (*wallāhu ḡalaqa kulla dābbatin min māʿin fa-minhum [M.PL] maḡaḡ yamḡi ʿalā baḡniḡi wa-minhum maḡaḡ yamḡi ʿalā riḡlaini wa-minhum maḡaḡ yamḡi ʿalā ʿarbaʿin* ‘God has created every beast of water, and some of them go upon their bellies, and some of them go upon two feet, and some of them go upon four’), it is likely to assume that, just as for the ʿasmāʾ passage, mixed-animacy reference also plays a role in introducing M.PL agreement. This is because *kulla dābbatin [...] minhum* refers to all kinds of animates, including *maḡaḡ yamḡi ʿalā riḡlaini* ‘some of them go upon two feet’, which may point to humans and maybe humanoids as included, by metaphor, in an encompassing group of *dawābb* (cf. Salah Ata Fakhry, *Das Nomen im Arabischen. Eine kritische-analytische Gegenüberstellung der Analyse bei den Nationalgrammatikern bis as-Suyūḡi* (gest. 911 n. H.). Teil I [Wiesbaden: Harrassowitz, 2023], 465-66).

distribution of M.PL over target types, 2) Close analysis of the relevant Qur'ānic material, consisting of a micro-typological classification and a fine-grained analysis of the contexts of occurrence of M.PL with inanimates.

The statistical analysis shows that with inanimate controllers M.PL agreement occurs slightly more frequently in the predicate and pronoun than in the attribute. From a typological perspective, this finding is compatible with an interpretation of M.PL as a newly emerging and semantically motivated agreement type. This assessment is backed by similar patterns in the process of the loss of the gender distinction in the Modern Arabic Dialects. But wherever the latter process is observable as ongoing in a contemporary dialect, it is so—to an important extent—due to dialect contact (leveling, borrowing). This is why the Modern Arabic Dialects cannot help us determine the mechanisms by which M.PL with inanimates must have arisen/developed in the first place (independently of whether the Qur'ānic evidence is related to this emergence or not). To elucidate this point we turn to the close analysis of the Qur'ānic material itself.

Here, four main types of M.PL use with inanimates/animals are identified: M.PL use with inanimates due to: a) Personification of inanimates, b) transformation of humans into nonhumans, c) metonymic reference of inanimates to humans, and d) “true” M.PL with inanimates/animals.

Just like personification (§3.1.), transformation of humans as a reason for M.PL (§3.2.) is a marginal phenomenon that does not contribute much to the elucidation of the problem. Rather, in the largest part of the relevant material the use of M.PL is brought about by metonymy (§3.3.), and it is here that the answer must be sought: In the metonymic cases, a plural noun that (literally) refers to inanimates, also refers (implicitly) to humans, based on the principle of contiguity. Two main types of metonymies are identified: Type I: A body-part term refers implicitly to the human owners of those body parts, so that the former takes M.PL agreement (e.g., *wuḡūhun [...]* *laysa lahum*), or, Type II: A container or location-term (notably ships, cities and—in a very liberal interpretation—gardens) refers implicitly to the humans contained or located in it, so that the former takes M.PL agreement (e.g., *wa-tilka l-qurā 'ahlaknāhum*). The metonymy group involves a characteristic that is very likely to lead to the development of M.PL into a “common” agreement type with inanimates: The double inanimate-plus-human reference of the metonymic controllers (e.g., faces, necks, ships, cities) renders possible a syntactic structure where a target takes M.PL form without any noun of explicitly human reference present in the context. Instead, the noun that is closest to the M.PL target, is literally/lexically an inanimate. This leads to a situation where hearers get increasingly accustomed to experiencing M.PL agreement in close vicinity to an inanimate noun. Since this noun is also, to a certain extent, coreferent with that M.PL target (i.e., the “human” aspect of its reference), the setting as a whole invites the reanalysis of the M.PL target as a “normal” agreement type for inanimates, thus rendering its spread to

other, non-metonymic, types of controller nouns possible. Note, however, that the result of the latter step is not (yet) represented in the Qurʾān. The metonymic settings in 3.3. merely represent a highly likely source-construction for the latter step to be taken. Sometimes agreement attraction caused by possessive pronouns on the inanimate noun plays a role in drawing the occurrence of a M.PL target very close to that inanimate noun (e.g., *fa-ḡallat ʾaʿnāquhum laḡā ḡāḡīʿina*). This is another favorable factor with regard to the reanalysis proposed.

The last group of M.PL occurrences, “true” M.PL with inanimates/animals (3.4), is a step-up of the former: Here, metonymy is combined with a “generic animacy plural” (i.e., a M.PL that refers to a mixed-animacy group) (e.g., *(a)l-ʾasmāʾa kullahā tumma ʿaraḡahum*). It is easy to imagine how such a resolution pattern can be reanalyzed as a “normal” M.PL with inanimates. This holds especially in a context like Q 2:31-33 where the mixed group referred to does (most likely) not even include humans, but merely beings that are similar to humans (“humanoids”) and, most importantly, a great number of animals and inanimate things. However, the latter group is not yet the “plain” Neo-Arabic type. This is because, with the presence of both metonymy and animacy resolution, the context for M.PL use is highly marked, as compared to typical Middle Arabic and Modern Dialectal examples of M.PL with inanimates (e.g., *hal-baranīḡ ḡālyīn*).

I therefore conclude that Qurʾānic M.PL agreement with inanimate plurals does not, in the majority of cases, result from personification. Rather, most of the relevant material displays a range of semantic-syntactic features that can be interpreted as representative of at least two layers of potential and likely source constructions for the grammaticalization of M.PL into a “normal” agreement type with inanimates. The decisive characteristic of these contexts lies in the presence of both

- metonymy
- and animacy resolution with mixed-animacy groups (or groups of entities whose degree of animacy is underspecified).

Synchronically, the major part of the Qurʾānic material does not display the Neo-Arabic type of M.PL with inanimates in the strict sense, insofar as the metonymic controllers “still” refer simultaneously to inanimates *and* to the humans implied. In Q 2:31-33 however (the ʾasmāʾ passage), a further step towards the Neo-Arabic type has been taken, insofar as there is no (obvious) reference to humans anymore. The large bulk of Qurʾānic M.PL with inanimates can thus be interpreted as representative of at least two layers of an evolution that is likely to culminate in the emergence of the very phenomenon that is so well known from Neo-Arabic, i.e., “plain” M.PL agreement with plurals referring to inanimates or animals. That this path of development was not followed up on in the high-register written/literary language of subsequent centuries is most likely the consequence of the process

of standardization of the language—since in such a process, subtle and quantitatively marginal grammatical patterns, such as the ones discussed in this contribution, are typically discarded.

Abbreviations

M.SG	Masculine singular
F.SG	Feminine singular
CG.PL	Plural of common gender
M.PL	Masculine plural
F.PL	Feminine plural

References

- Beeston, Alfred F.L. “Some Features of Modern Standard Arabic.” *Journal of Semitic Studies* 20 (1975): 62-68.
- Belnap, Kirk R. “Grammatical Agreement Variation in *Cairene* Arabic.” Ph.D. dissertation, University of Pennsylvania, 1991.
- Belnap, Kirk R., and John Gee. “Classical Arabic in Contact: The Transmission to Near Categorical Agreement Patterns.” In *Perspectives on Arabic Linguistics: Papers from the Annual Symposium on Arabic Linguistics VI*, edited by Mushira Eid, Vicente Cantarino, and Keith Walters, 121-149. Amsterdam: John Benjamins Publishing Company, 1994.
- Belnap, Kirk R., and Osama Shabaneh. “Variable Agreement with Nonhuman Controllers in Classical and Modern Standard Arabic.” In *Perspectives on Arabic Linguistics: Papers From the Annual Symposium on Arabic Linguistics IV*, edited by Ellen Broselow, Mushira Eid, and John McCarthy, 245-262. Amsterdam: John Benjamins Publishing Company, 1992.
- Bettega, Simone. “Agreement Patterns in Omani Arabic: Sociolinguistic Conditioning and Diachronic Development.” *Sociolinguistic Studies* 12 (2018): 143-163.
- . “Rethinking Agreement in Spoken Arabic: The Question of Gender.” *Annali. Sezione Orientale* 79 (2019): 126-156.
- Bettega, Simone, and Luca D’Anna. *Gender and Number Agreement in Arabic*. Leiden; Boston: Brill, 2023.
- Bettega, Simone, and Bettina Leitner. “Agreement Patterns in Khuzestani Arabic.” *Wiener Zeitschrift für die Kunde des Morgenlandes* 109 (2019): 9-37.
- Brustad, Kristen. *The Syntax of Spoken Arabic. A Comprehensive Study of Moroccan, Egyptian, Syrian, and Kuwaiti Dialects*. Washington D. C.: Georgetown UP, 2000.

- Bußmann, Hadumod, ed. *Lexikon der Sprachwissenschaft*. Stuttgart: Alfred Kröner Verlag, ³2002 (1983).
- Cantarino, Vicente. *Syntax of Modern Arabic Prose*. Vol. 1. Bloomington, London: Indiana University Press, 1974.
- Corbett, Greville G. "The Agreement Hierarchy." *Journal of Linguistics* 15 (1979): 203-224.
- . *Agreement*. Cambridge: Cambridge UP, 2006.
- Corpus Coranicum. Edition of the Qurʾān (al-Qurʾān al-karīm), Cairo 1924, Image, Unicode Text, Latin Transcription, digital edition by Michael Marx, in collaboration with Tobias J. Jocham et al.
<https://corpuscoranicum.de> (last access 18 May 2023).
- Cowell, Mark W. *A Reference Grammar of Syrian Arabic. Based on the Dialect of Damascus*. Washington D.C.: Georgetown University Press, ²2005 (1964).
- D'Anna, Luca. "Agreement with Plural Controllers in Fezzānī Arabic." *Folia Orientalia* 54 (2017): 101-122.
- . "The Influence of Verbal Semantics on Agreement Patterns in Arabic: The Role of Agenthood." *Annali, Sezione Orientale* 80 (2020): 29-51.
- . "Agreement Patterns with Plural Controllers in the Pre-Islamic Muʿallaqāt." In *Qamariyyāt: oltre ogni frontiera tra letteratura e traduzione. Studi in onore di Isabella Camera d'Afflitto*, edited by Maria Avino, Ada Barbaro, and Monica Ruocco, 131-150. Roma: Istituto per L'Oriente C. A. Nallino, 2020.
- Diem, Werner. "Vom Altarabischen zum Neuarabischen. Ein neuer Ansatz." In *Semitic Studies in Honor of Wolf Leslau. On the Occasion of His Eighty-Fifth Birthday, November 14th, 1991*. Vol. 1, edited by Alan S. Kaye, 297-308. Wiesbaden: Harrassowitz, 1991.
- Dukes, Kais. 2009-2017. The Quranic Arabic Corpus.
<https://corpus.quran.com> (last access 18 May 2023).
- Dror, Judith. "Adjectival Agreement in the Qurʾān." *Bulletin d'études orientales* 62 (2014): 51-75.
- El-Ayoubi, Hashem, Wolfdietrich Fischer, and Michael Langer. *Syntax der arabischen Schriftsprache der Gegenwart. 1.1: Das Nomen und sein Umfeld*. Wiesbaden: Reichert, 2001.
- . *Syntax der arabischen Schriftsprache der Gegenwart. 2: Die Verbalgruppe*. Wiesbaden: Reichert, 2010.
- al-Farrāʾ, Abū Zakaryā Yaḥyā b. Ziyād. *Maʿānī al-Qurʾān*. Vol 2, edited by Muḥammad ʿAlī an-Naḡḡār. Al-Qāhira 1955: Dār al-Kutub al-Miṣriya.
- Ferguson, Charles A. "Grammatical Agreement in Classical Arabic and the Modern Dialects: A Response to Versteegh's Pidginization Hypothesis." *Al-ʿArabiyya* 22 (1989): 5-17.
- Fischer, Wolfdietrich. "Das Altarabische in islamischer Überlieferung: Das Klassische Arabisch." In *Grundriß der Arabischen Philologie. Band I: Sprachwissenschaft*, edited by Wolfdietrich Fischer, 37-50. Wiesbaden: Harrassowitz, 1982.

- . “Frühe Zeugnisse des Neuarabischen.” In *Grundriß der Arabischen Philologie. Band I: Sprachwissenschaft*, edited by Wolfdietrich Fischer, 83-95. Wiesbaden: Harrassowitz, 1982.
- . *Grammatik des Klassischen Arabisch*. Wiesbaden: Harrassowitz, 21987 (1972).
- Fischer, Wolfdietrich, and Otto Jastrow, eds. *Handbuch der arabischen Dialekte. Mit Beiträgen von P. Behnstedt, H. Grotzfeld, B. Ingham, A. Sabuni, P. Schabert, H.-R. Singer, L. Tsotskhadze und M. Woidich*. Wiesbaden: Otto Harrassowitz, 1980.
- Gragg, Gene. “Ge’ez (Ethiopic).” In *The Semitic Languages*, edited by Robert Hetzron, 242-60. London: Routledge, 1997.
- Hallowell, Alfred Irving. “Ojibwa Ontology, Behavior, and World View.” In *Culture in History: Essays in Honor of Paul Radin*, edited by Stanley Diamond, 19-52. New York: Columbia University Press, 1960.
- Hanitsch, Melanie. “Kongruenzvariation beim unbelebten Plural im Neuarabischen: Beobachtungen zum damaszenischen attributiven Adjektiv im Dialektvergleich.” In *Orientalistische Studien zu Sprache und Literatur. Festgabe zum 65. Geburtstag von Werner Diem*, edited by Ulrich Marzolph, 139-151. Wiesbaden: Harrassowitz, 2011.
- . “The Agreement Hierarchy and Qur’ānic Arabic. Part I: Synchronic Overview and Some Reflections on Diachrony.” *al-Karmil: Studies in Arabic Language and Literature* 42 (2021): 30-80.
- . “Angels, Beasts, and Impressive Things. A Radial Category Approach to Qur’ānic Arabic Feminine Plural Agreement.” *Journal of Arabic and Islamic Studies* 22 (2022): 33-87.
- . “Gender Agreement in Qur’ānic VSO Verbs with Nonhuman Subjects.” *Zeitschrift für Arabische Linguistik* 76, no. 2 (2022): 15-49.
- . “Two Gardens Therein Maidens – Does the Qur’ān Present Evidence for the Beginning of the Loss of the Dual?” Presented at the Qur’ānic Linguistics Research Group Inaugural Conference, Swansea University – SOAS Centre of Islamic Studies, University of London, via Zoom, March 15, 2023.
- . “The Agreement Hierarchy and Qur’ānic Arabic. Part II: The Origin of Deflected Agreement.” *al-Karmil: Dirāsāt fī al-lughā al-‘Arabiyya wa-l-Adab* 43 (2022): 31-71.
- Harvey, Graham. *Animism. Respecting the Living World*. London: Hurst, 2005.
- Hasselbach, Rebecca. “Agreement and the Development of Gender in Semitic (Part II).” *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 164, no. 2 (2014): 319-344.
- Hopkins, Simon. *Studies in the Grammar of Early Arabic. Based Upon Papyri Datable to Before 300 A.H./912 A.D.* Oxford: Oxford University Press, 1984.
- Ingham, Bruce. *North East Arabian Dialects*. London, Boston: Kegan Paul International, 1982.

- Joiion, Paul, and Takamitsu Muraoka. *A Grammar of Biblical Hebrew*. Rome: Pontificio Istituto Biblico, 2006.
- Kahle, Erhart. *Studien zur Syntax des Adjektivs im vorklassischen Arabisch*. Erlangen: Lüling, 1975.
- Koch, Peter. "The Pervasiveness of Contiguity and Metonymy in Semantic Change." In *Current Methods in Historical Semantics*, edited by Kathryn Allan and Justyna A. Robinson, 259-311. Berlin, Boston: De Gruyter Mouton, 2012.
- The Koran Interpreted: A Translation*. Translated by Arthur John Arberry et. al. London: Oxford University Press, 1964.
- Leitner, Bettina. *Unpublished dialect data from Snāw, Oman*.
- Lakoff, George, and Mark Johnson. *Metaphors We Live By*. Chicago, London: The University of Chicago Press, 2003 (1980).
- Maier, Bernhard. *Koran-Lexikon*. Stuttgart: Kröner, 2001.
- Nöldeke, Theodor. *Zur Grammatik des classischen Arabisch. Im Anhang: Die handschriftlichen Ergänzungen in dem Handexemplar Theodor Nöldekes bearbeitet und mit Zusätzen versehen von Anton Spitaler*. Darmstadt: Wissenschaftliche Buchgesellschaft, ²1963 (1897).
- Owens, Jonathan. "Deflected Agreement and Verb Singular in Arabic. A Three-Stage Historical Model." *Journal of Semitic Studies* 66 (2021): 483-502.
- Penrice, John. *A Dictionary and Glossary of the Korān with Copious Grammatical References and Explanations of the Text*. London: Henry S. King, 1873.
- Perdibon, Anna. *Mountains and Trees, Rivers and Springs. Animistic Beliefs and Practices in Ancient Mesopotamian Religion*. Wiesbaden: Harrassowitz, 2019.
- al-Qāḍī, Muḥammad Maḥmūd. *ʿIṣrāb al-Qurʿān al-karīm bi-riwāyat Ḥaḥṣ ʿan ʿĀsim ašrafa ʿalayhi wa-rāġaʿahu Kamāl Muḥammad Bišr, ʿAbd al-Gaffār Ḥāmid [al-JHalāl [al-Qāhira]: Dār aš-Šaḥwa, 2010.*
- ar-Rāzī, Abū ʿAbd Allāh Muḥammad b. ʿUmar Fakḥr ad-Dīn. *at-Tafsīr al-Kabīr wa-Mafātīḥ al-Ġayb*. 32 vols. [Bayrūt]: Dār al-Fikr, 1981.
- Reckendorf, Hermann. *Arabische Syntax*. Heidelberg: Carl Winters Universitätsbuchhandlung, 2021.
- Ritt-Benmimoun, Veronika. "Agreement with Plural Heads in Tunisian Arabic. The Bedouin South." In *Tunisian and Libyan Arabic Dialects. Common Trends — Recent Developments — Diachronic Aspects*, edited by Veronika Ritt-Benmimoun, 261-87. Zaragoza: Prensas de la Universidad de Zaragoza, 2017.
- Rosenhouse, Judith. *The Bedouin Arabic Dialects. General Problems and a Close Analysis of North Israel Bedouin Dialects*. Wiesbaden: Harrassowitz, 1984.
- Sowayan, Saad Abdullah. *The Arabian Oral Historical Narrative*. Wiesbaden: Harrassowitz, 1992.

- aṭ-Ṭabarī, Abū Ġaʿfar Muḥammad b. Ġarīr. *Tafsīr aṭ-Ṭabarī. Ġāmiʿ al-Bayān ʿan Taʾwīl Āy al-Qurʾān*, edited by ʿAbd Allāh b. ʿAbd al-Muḥsin at-Turkī. 25 vols. al-Qāhira: Dār Haġr, 2001.
- Rubin, Uri. ““Become You Apes, Repelled!” (Quran 7:166) The Transformation of the Israelites into Apes and its Biblical and Midrashic Background.” *Bulletin of the School of Oriental and African Studies, University of London* 78, no. 1 (2015): 25-40.
- Talmon, Rafael. “Grammar and the Qurʾān.” In *Encyclopaedia of the Qurʾān*, edited by Jane Dammen McAuliffe. Washington DC: Georgetown University, 2001-2006.
- Ullmann, Manfred. “Vorklassisches Arabisch.” In *Studi in onore di Francesco Gabrieli nel suo ottantesimo compleanno*. Vol. 2, edited by Renato Traini, 807-18. Roma: Università di Roma “La Sapienza,” Dipartimento di Studi Orientali, 1984.
- Wright, William. *A Grammar of the Arabic Language*. Vol. 1. Beirut: Librairie du Liban, 1996.
- az-Zamaḥṣarī, Abū l-Qāsim Maḥmūd b. ʿUmar. *al-Kaššāf ʿan ḥaqāʾiq ġawāmiḍ at-tanzīl wa-ʿuyūn al-ʿaqāwīl fī wuġūh at-taʾwīl*, edited by ʿĀdil Aḥmad ʿAbd al-Mawġūd, ʿAlī Muḥammad Muʿawwaḍ. 6 vols. ar-Riyāḍ: Maktabat al-ʿUbaykān [Obeikan Bookstore], 1998.

Online resource:

Graphpad: Contingency Tables, <https://www.graphpad.com/quickcalcs/contingency1/> (last access 8 May 2023).

DOI: 10.13173/9783447121729.165

This is an open access file distributed under the terms of the CC BY-SA 4.0 license.
<https://creativecommons.org/licenses/by-sa/4.0/deed.en>

© by the author