

**The uneven distribution of genders over numbers:
Greenberg Nos. 37 and 45**

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Abstract

Gender distinction in non-singular numbers is widely believed to imply gender distinction in the singular, especially that of corresponding genders and in one and the same word inflecting for these two categories. The best-known claim to this effect are the universals Nos. 37 and 45 in Greenberg (1963). There are few universals without exceptions, and the singular preference for genders, though sometimes claimed to be absolute, is after all no exception. However, considering the reputation of this universal and similar ones capitalizing on markedness, it is perhaps surprising that instances of genders in non-singular numbers which lack a counterpart in the singular, as documented in this paper, are as numerous as they are. Often there are in fact good functional or diachronic reasons for genders to prefer non-singular numbers, and one therefore begins to wonder how strong the reasons really are for the regular, or at any rate predominant, gender preference to be on the singular.

Keywords: Gender, gender conflicts, grammaticalization, inflection, markedness, number, paradigms, syncretism

*dedicated, with overwhelmingly more than chance cogency,
to Joseph H. Greenberg,
for how could any new typological journal get off without?*

1. Danish

In Danish, the 3rd person personal pronoun inflects, by suppletion, for number and gender, as well as for case. There is a four-way contrast of gender, with separate forms for referring to persons and non-persons and with personal forms in turn distinguished as masculine and feminine and non-personal forms as common and neuter. However, these gender con-

Table 1. *3rd person personal pronoun in Danish, subjective case*

		SG	PL
PERSON	MASCULINE	<i>han</i>	<i>de</i>
	FEMININE	<i>hun</i>	
NON-PERSON	COMMON	<i>den</i>	
	NEUTER	<i>det</i>	

trasts are confined to only one of the two numbers, the singular; the plural would have none of it. This asymmetry, rendering a gender system "convergent" rather than "parallel" (in the terminology of Corbett 1991), is illustrated for the subjective case in Table 1, but it is the same for the objective and the possessive.

Actually, this asymmetry is so pervasive a trait of Danish as to recur with all words inflecting for both number and gender, with gender always expressed cumulatively with number (but not necessarily vice versa) and possibly further categories. Outside the 3rd person personal pronoun, gender only shows a two-way contrast of common vs. neuter. Ignoring irrelevant details, such as further syncretisms and adjectives that are either reluctant to take neuter singular *-t* or wholly invariable, this is seen in singular/plural pairs such as (1)/(2), (3)/(4), and (5)/(6) for definite and indefinite articles (the former an enclitic or suffix when there is no attributive) and predicative and attribute adjectives, all agreeing in number and gender, with attribute adjectives also responding to definiteness.

- (1) a. *Elefant-en* *er stor-Ø*
 elephant-DEF.SG.COMMON is big-SG.COMMON
 'The elephant is big.'
- b. *Hus-et* *er stor-t*
 house-DEF.SG.NEUTER is big-SG.NEUTER
 'The house is big.'
- (2) a. *Elefant-er-ne* *er stor-e*
 elephant-PL-DEF.PL are big-PL
 'The elephants are big.'
- b. *Hus-e-ne* *er stor-e*
 house-PL-DEF.PL are big-PL
 'The houses are big.'

- (3) a. *en stor-Ø elephant*
 INDEF.SG.COMMON big-INDEF.SG.COMMON elephant
 'a big elephant'
- b. *et stor-t hus*
 INDEF.SG.NEUTER big-INDEF.SG.NEUTER house
 'a big house'
- (4) a. *Ø stor-e elephant-er*
 INDEF.PL big-PL elephant-PL
 'big elephants'
- b. *Ø stor-e hus-e*
 INDEF.PL big-PL house-PL
 'big houses'
- (5) a. *den stor-e elephant*
 DEF.SG.COMMON big-DEF.SG elephant
 'the big elephant'
- b. *det stor-e hus*
 DEF.SG.NEUTER big-DEF.SG house
 'the big house'
- (6) a. *de stor-e elephant-er*
 DEF.PL big-PL elephant-PL
 'the big elephants'
- b. *de stor-e hus-e*
 DEF.PL big-PL house-PL
 'the big houses'

The appropriate generalization for Danish, holding for all its words and all their inflected forms, then, is that of its two numbers the singular is more conducive to distinctions of gender than the plural, which is in fact devoid of gender.¹ Obviously, this is not so by logical necessity: logically, having as many genders in the plural as in the singular, or indeed more, would not be self-contradictory nor in contradiction to anything else.

2. Beyond Danish

To press on with generalizing, is what is true for Danish, although not by force of logic, perhaps true for other languages too, or indeed for them all?

It is the received wisdom, as codified in Greenberg's (1963) catalogue of universals, that the answer is in the affirmative, even at the highest level of cross-linguistic generality. As many as two implicational universals are suggested by Greenberg to account for the uneven distribution of genders over numbers when both inflectional categories co-occur—

which is what they are supposed to do whenever a language has gender, for universals Nos. 32 and 36 have gender imply number (but not vice versa):

Universal 37. A language never has more gender categories in nonsingular numbers than in the singular.

Universal 45. If there are any gender distinctions in the plural of the pronoun, there are some gender distinctions in the singular also.

On the face of it, Greenberg's universal No. 37 subsumes No. 45: No. 37 pertains to all classes of words potentially inflecting for number and gender, whereas No. 45 is limited to pronouns; and No. 37 also covers all non-singular numbers while No. 45 is limited to the plural. Therefore, on this reading, if No. 37 is valid, so will be No. 45, but not vice versa. But precisely how these universals are to be read is a question that we need to return to.

This entire morphological matter is clearly a bit peripheral to Greenberg's main concern with the order of meaningful elements in his cult paper of 1963 (winning MIT Press a name in linguistics). At about the same time, however, the infrastructure of inflectional systems was in the limelight elsewhere (by courtesy of the publishers who had been going in for the more speculative genre, with books on their backlist like that famous one on Affix Hopping and related matters in English, but who would, one day and under new management, also gamble in typological journals), when Greenberg (1966: 27–51, 56–71) enlarged on the notion of markedness as the rationale for implicational universals of this kind. And from this discussion it is obvious that what he had in mind is a very general claim à la universal No. 37, with genders unevenly distributed over numbers, doing better in the unmarked singular than in the marked numbers, regardless of the class of words inflecting for these categories.

It is also in this general form that similar claims have been made prior to Greenberg (1963). Markedness was *the* catchword in European structuralist circles, especially those of Prague and Copenhagen, and as this notion or its equivalents were being extended from phonology to morphology in the 1930s and 40s, they were soon brought to bear, not only on single inflectional categories, but also on the relationships between them.

Inflectional systems were high on Louis Hjelmslev's agenda as he was in exile, getting linguistics going at Århus (see, e.g., Hjelmslev 1935, 1972, 1973). Eschewing markedness talk proper, he distinguished the terms of single categories as "extensive" and "intensive" (with plural and dual, for example, being intensive vis-à-vis extensive singular), but in effect the correspondence with Trubetzkoy, Jakobson, et al.'s unmarked and

marked could not have been closer. Another key notion for Hjelmslev was that of "dominance" of one paradigmatic category over another; for example, number could be dominant over case or vice versa, depending on the language. Dominant categories would be less prone to be affected by syncretism than those they dominated, especially when expressed cumulatively; with number dominant over case, case distinctions would tend to be syncretized for particular numbers rather than number distinctions for particular cases, and the other way round when case was dominant. And it was the intensive/marked terms of dominant categories that would discourage the elaboration of dominated categories either by inducing syncretism among the terms of a dominated category, especially the intensive/marked ones, or, more radically, by doing away with that category entirely in that subpart of the paradigm (what Hjelmslev called "defectivation"). Thus, where number was dominant over case, case distinctions would be expected to suffer in the plural and, even more so, in the dual, and least in the singular. Analogously, the intensive/marked numbers would be a less favourable environment for the distinction of genders than their extensive/unmarked counterparts; or, if seen from the point of view of genders, as it would have to be seen should gender turn out to be dominant over number, numbers would do better in extensive/unmarked (animate, rational, masculine, common, etc.) than in intensive/marked genders.²

What Viggo Brøndal shared with Louis Hjelmslev, apart from a small country, the membership in the same *Cercle*, the somewhat theoretical outlook on linguistics, the inventiveness in variations on markedness terminology, and the fascination with general principles of morphological structures, was the reluctance to acknowledge each other's existence. So, when Brøndal came up with his own "principe de compensation", Hjelmslev's theory of intensive terms tending towards syncretism and defectivation under intensive domination had, ostensibly, been lost on him:

Si, à l'intérieur d'une catégorie donnée, une forme est définie de façon plus complexe que telle autre, cette dernière sera le plus différenciée. Le principe ... trouvera son application ... dans les systèmes où deux formes polaires s'opposent non seulement entre elles, mais en même temps à une forme complexe ou synthétique ... (Brøndal 1943: 107)

The idea of this principle of Brøndal's was basically the same, though: it was to explain why, for example, fewer cases were overtly distinguished in the ("complex"/marked) dual than in the (less complex) plural and especially the ("neutral"/unmarked) singular rather than the other way round.

The deleterious effect of complex/marked numbers on gender was not exemplified by Brøndal himself, whose preferred categories, like Hjelmslev's, were numbers and cases. But when Roman Jakobson (1939), representing the sister *Cercle* of Prague, approvingly cited Brøndal's principle of compensation (before it was properly published, while Hjelmslev was to ignore it ever after), he mentioned Russian as a language where, as was only to be expected on markedness grounds, the (unmarked) present tense distinguishes persons while the (marked) past does not, the (unmarked) nominative distinguishes masculine and neuter while the (marked) oblique cases do not, and the (unmarked) singular distinguishes genders while the (marked) plural completely abolishes this category.

Thus, Greenberg's universal No. 37 can be traced back at least to the days of the Copenhagen and Prague *Cercles*. What adds to its appeal, and what accounts for its origins in these circles, is that it is a special case of an even more general law about the interaction of inflectional categories: whenever a category is amenable to markedness evaluation, its marked term(s) will be bad company for other categories in the same paradigm, insofar as they are prone not to let these unfold as much as its unmarked terms are wont to do.

In a way, reducing one generalization to another one or more levels up in generality may be considered a kind of explanation. Nonetheless, even if you know that all relevant inflectional categories intersect the way number and gender do, you might still be curious to know how come they all do the same; and if you are told that it all hinges on markedness, you are entitled to ask how markedness can have such power.

In fact, the role of markedness in regulating the interplay of inflectional categories is even more shadowy than most of its others. Among the pioneers it was perhaps Brøndal and, although a little less clearly, also Hjelmslev who saw best how an explanation in such terms would have to run. The premiss is that inflectional systems ought to remain within certain limits of complexity, and the problem that may arise then is how to cut down on them when a language indulges in inflectional elaboration to the extent that these limits are in danger of being exceeded. Quantitatively, the obvious measure to take is simply not to have as many distinct forms as there are paradigmatic distinctions—which is the rationale for syncretism and defectivation, especially where the exponents of two or more categories are expressed cumulatively rather than separately. Now, saving on forms is something that can be done randomly or strategically, but the effect is heightened when choices are taken wisely.³ Since complexity has a cognitive side in addition to its quantitative one, the curtailment of formal distinctions had better affect those

categories that are cognitively so complex (or intensive, or marked) to begin with as not to be overburdened with further categorial distinctions. Thus, if the question is whether to do away with gender distinctions in the singular or plural, the numerical gain would be exactly the same either way; but since plural is more complex than singular, the cognitive architecture of the system would benefit more from relieving the plural of gender duties, partly or wholly, rather than the singular.

Whatever its ultimate explanation, what is actually being proscribed by the universal about the uneven distribution of genders over numbers would seem fairly straightforward. But then the spirit of the law is one thing, and the letter another.

As laid down by Greenberg in its most general form, i.e., that of universal No. 37, it is entire languages that fall within the law's jurisdiction, and this raises a problem of interpretation. Imagine a language (and they are not only in your imagination, as will be seen presently) where some word or some class of words, or indeed only some inflected form of some word or other, has more genders in non-singular numbers than in the singular. If the law were about the words of languages, or about their inflected forms, these items just imagined would be in contravention of it, as is evident when universal No. 37 is reformulated accordingly:

Universal 37'. If there are any gender distinctions in any non-singular numbers of any word of any language, there will be the same or more gender distinctions in the singular of these particular words too.

Universal 37''. If there are any gender distinctions in any non-singular numbers of any inflected word form of any language, there will be the same or more gender distinctions in the corresponding singular form of this word too.

If the law is read as legislating against gender preferences for non-singulars in languages considered in their entirety, however, single words or word forms do not give offence as long as there are *other* words or word forms which do show at least those genders in the singular that the not-so-well-behaved words or word forms are missing, thus saving the whole language. (Greenberg's sister universal, No. 45, is equally ambiguous, at any rate for those who can read its *implicatum* as "[then] there are some gender distinctions in the singular of any word of that language also, pronouns or other, including or not including the pronoun at issue itself".⁴ But it can easily be tightened up in the manner of Nos. 37'/37''.)

The word or word form reading is the stricter one, and is therefore to be preferred as a hypothesis about what is possible and what is not when inflectional categories intersect, as long as the facts do not force a retreat

to the more generous reading, permitting different words or word forms of a language to compensate for each other's deficiencies. Presumably, however, it is not *any* kind of facts that one would want to give in to; they should be sufficiently weighty. If there happens to be a word or a small, arbitrary set of words whose singular inflection differs from that of all other relevant words of the language in that some accidental homonymy wipes out a gender distinction that is maintained by other words and is also made in the victims' own plural, this isolated infringement of the strict reading will, presumably, be shrugged off as being of little systematic significance even by the rigorists.⁵

Another moot question concerns the identity of genders in the various numbers. In Greenberg's own formulation of No. 37, the universal can be read as merely making a quantitative claim, requiring that genders be at least as numerous in the singular as in non-singular numbers, regardless of whether the genders shared are substantively the same. (In the pronominal version, No. 45, the actual wording is so peculiarly lax as to be consistent not only with different genders in the plural and singular, but in fact also with more genders in the plural than in the singular.) Imagine a language with four genders in the singular (masculine, feminine, vegetable, other) and with two genders in the plural (human, non-human), also assigned on a semantic basis, although on a different one, dividing up the nouns into classes not co-extensive with those of the singular. Numerically, this yields more genders in the singular than in the plural; but the particular genders of the plural are without counterparts in the singular, and that might be seen as a problem if universal No. 37 is read strictly. It might well be a problem that is academic, though, should languages that you were asked to imagine prove imaginary. Such radical differences of genders between numbers do not seem to be on record (at least of individually or collectively comprehensive surveys such as Bindseil 1838, Pott 1856, de la Grasserie 1906, Royen 1929, and Corbett 1991), even though the principles of gender assignment need not be uniform throughout a language, and nouns may not end up in the same gender class in non-singular numbers as in the singular (but for example in the opposite one instead, as per polarity).

Nonetheless, in order to be up to all eventualities, for present purposes we are taking the universal about the intersection of gender and number in its stricter formulations, as given above as Nos. 37' and 37'', as our unmarked point of reference.

3. Exceptionally exceptionless?

Of the forty-five universals in Greenberg (1963), twelve were explicitly qualified as being only valid "with (well or overwhelmingly) more than

chance frequency", and No. 37 was not one of them, nor was No. 45. On the contrary, Greenberg added the comment to No. 37 that "the opposite phenomenon [more gender categories in the singular than in non-singular numbers], to my knowledge, never occurs" (1963: 95), and his "never" is presumably to be interpreted as including at least the thirty languages in his basic sample plus the other languages mentioned, provided he knew about the distribution of their genders over numbers. Some twenty years later, another eminent typologist, Hansjakob Seiler, concurred and accepted No. 37 as "bis jetzt unwidersprochen" (1985: 454). And when you ask around today in circles that are normally well informed in such matters, it will, with overwhelmingly more than chance frequency, only be the principled sceptics who you would get to confide that they have their doubts about Nos. 37/45, as about the rest. When we did just that, only three and a half of those polled could actually, upon a little reflection or after switching on their laptops and doing a quick search in their databases, cite what they (and we) believed was a counterexample.

By current standards, and one hopes that they unabatedly continue to be rising, it has almost become the rule for interesting implicational universals, at least for those with a simple *implicans* and a simple *implicatum*, to be statistical rather than absolute. Now, the claim about the uneven distribution of genders over numbers can be phrased as a simple implication, and it also appears to be of some theoretical interest, bearing crucially on the notion of markedness and on the shaping of inflectional paradigms. It almost beggars belief, therefore, that it should have managed to remain with a clean slate for so long.

In actual fact, its record is not at all without blemish. It is our purpose in this paper to marshal the evidence that is inconsistent—or might be adduced as being conceivably inconsistent—with claims to the effect that the singular is universally the preferred number for gender distinctions.

The counterevidence to be presented subsequently, arranged by locus and nature of violation, was assembled (i) by searching some 300 published language descriptions, (ii) by reading up on much of the theoretical literature on gender and number (and thereby, sometimes, also learning about languages that were not among the 300 chosen ones), and (iii) by consulting with numerous experts on particular languages, on typology, and/or on the categories at issue. The sample of some 300+ languages against which universal No. 37/37'/37" has thus been checked, by ourselves and those whose expertise we have been tapping, is essentially one of convenience and accident. Nonetheless, we believe it is fairly representative of the families and areas where both number and gender

are attested, and the probability that we have missed out on entirely unparalleled problems, therefore, does not worry us unduly.

The opposite danger is that our collection will prove overinclusive. Normally, our procedure was merely to record our findings, essentially taking the descriptions of contraventions in our sources at face value. This is not without considerable risk, since especially gender is a category where analyses are notoriously controversial, even for languages not much further-out than Danish. Often the difficulties here begin with deciding whether a language has or lacks gender. Sometimes gender is only recognized (as, e.g., in Corbett 1991) when it manifests itself in agreement; but a more liberal, and not unpopular alternative also credits languages with gender when classes of nouns, especially ones which cannot be defined phonologically and are semantically not entirely arbitrary, themselves show differences in inflection, rather than only controlling such differences in other words by way of agreement.⁶ Eliminating counterevidence that is due to misanalysis and our credulity, or also our magnanimity, is left as a task for the experts on the languages where we got it all wrong. Under the circumstances, our priority was on amassing rather than dismissing.

4. Personal pronouns

Personal pronouns are a privileged seat of gender and number, and are also honoured by a separate universal of Greenberg's, No. 45. But there is also some dallying of genders with improper numbers to be observed here.⁷

4.1. *3rd person non-singular only*

As reported by Hein Steinhauer in 1985 and again in 1986 for good measure, one kind of offence is for genders to be only distinguished in the 3rd person plural; and it is not a petty one because there is no gendered singular pronoun that could rescue the paradigm, as generous interpreters of Greenberg's Nos. 37/45 might have hoped.

In the Sauias dialect of Biak (South Halmahera–West New Guinea subgroup, Austronesian), pronouns only contrast genders, referred to as animate and inanimate, in the 3rd person plural and in no other person nor number, of which they have many (1st inclusive and exclusive, 2nd; singular, dual, trial). Only independent pronouns are illustrated in Table 2 (after Steinhauer 1985: 470, 475), but the gender distribution is the same for bound forms. Demonstratives, showing a three-way deictic contrast, are formally similar to the 3rd person pronoun, and likewise

limit gender to the plural, as is also shown in Table 2 for the proximal demonstrative.

As noted by Steinhauer, Biak is not the only language in this area with this unorthodox pattern. Wandamen and Windesi are two dialects of a closely related language, and they have human and non-human genders only in the 3rd person plural of pronouns, independent (see Table 3, giving the paradigm for Windesi after Cowan 1955: 48) as well as bound. It is the suffix *-at* which distinguishes the human gender from the non-human one for 3rd person plural; and this same suffix is obligatorily present in 1st and 2nd person plurals, which is understandable considering

Table 2. *Independent personal pronouns and proximal demonstrative pronoun in Biak*

		SG	DU	TR	PL
1	INCLUSIVE		'u	'o	
	EXCLUSIVE	aiá	nu	n'o	
2		áu	mu	m'o	
3	ANIMATE	i	su	s'o	si
	INANIMATE				na
'this'	ANIMATE	iné	suiné	s'oiné	siné
	INANIMATE				nané

Table 3. *Independent personal pronouns in Windesi*

		SG	DU	PL
1	INCLUSIVE		nandu	tatat
	EXCLUSIVE	jau	amun	amat
2		au	mandu	miat
3	HUMAN	i	sandu	siat
	NON-HUMAN			si

that non-humans will not typically take the roles of speakers and addressees.

But there are a few more law-breakers under this rubric than Steinhauer (1985) caught sight of. While Biak and its relatives keep numbers separate for the 3rd person pronoun, Katu (Katuic, Mon-Khmer) and Palau (Austronesian) yield to partial syncretism here, using the singular 3rd person pronoun also in non-singular functions. The 3rd person singular does not know gender, but since the singular form is being used in non-singular function only for inanimate or non-human genders—and that inanimates or non-humans are less prone to distinguish number than animates or humans as such is hardly surprising—a corresponding gender distinction comes about in non-singulars as the by-product of this familiar pattern of syncretism. The Katu paradigm is given in Table 4 (after Wallace 1966).⁸ Table 5 shows two sets of Palauan pronouns (after

Table 4. *Personal pronouns in Katu*

		SG	DU	PL
1	INCLUSIVE		<i>nhang</i>	<i>he</i>
	EXCLUSIVE	<i>ku ~ dai</i>	<i>yu'a</i>	<i>yi</i>
2		<i>mai</i>	<i>nhu'a</i>	<i>pe</i>
3	ANIMATE	<i>dó</i>	<i>nhi (dó)</i>	<i>pi (dó)</i>
	INANIMATE			

Table 5. *Personal pronouns in Palau*

		emphatic		object	
		SG	PL	SG	PL
1	INCLUSIVE		<i>kid</i>		<i>-id</i>
	EXCLUSIVE	<i>ngak</i>	<i>kɛmam</i>	<i>-ak</i>	<i>-ɛmam</i>
2		<i>kɛmiu</i>	<i>-au</i>	<i>-ɛmiu</i>	
3	<i>kau</i>	<i>ngii</i>		<i>-ii</i>	
	HUMAN		<i>tir</i>		<i>-tɛrir</i>
	NON-HUMAN				<i>∅</i>

Lemaréchal 1993); the pattern just described is found with independent or emphatic pronouns, and also with subject and possessive pronouns,⁹ but the object set offends somewhat differently by further distinguishing the non-human plural from the singular, à la Biak.

4.2. Not 1st person singular

Another, paradigmatically wider-ranging kind of misbehaviour is for gender to be distinguished in every combination of person and number except 1st person singular. This is frequent with independent personal pronouns in Berber, as will be seen presently (Section 4.3) and as is illustrated here from Ntifa of Central Morocco (Table 6, after Laoust 1918: 211), and is also found in at least two Khoisan languages, Hadza of Tanzania (Table 7, after Bleek 1931) and Nama Hottentot (Table 8, after Böhm 1985: 135). (Nama will make another appearance in Section 4.6, owing to the rationale of its "common" gender.)

For generous interpreters of Greenberg's Nos. 37/45 these paradigms, unlike those of Section 4.1, are saved by gender distinctions in singulars other than that of 1st person. And even if you subscribe to the stricter reading of this universal as spelled out in No. 37' you cannot help but sympathize with gender being least keen on being seen in this particular paradigmatic corner. Assuming that the speaker is visible to his or her addressees, why should he or she bother to tell them his or her own gender? In the 1st person non-singular, on the other hand, reference is being made by the speaker to others not necessarily visible rather than to only him- or herself, and maybe someone might be obliged to know of which gender these associates of his or hers are.¹⁰

Table 6. *Independent subject pronouns in Ntifa*

		SG	PL
1	MASC	<i>nkí(n)</i>	<i>núkni</i>
	FEM		<i>núkěnimti</i>
2	MASC	<i>kii(n)</i>	<i>kúnni</i>
	FEM	<i>kemmi(n)</i>	<i>kúnimti</i>
3	MASC	<i>ntá, ntân</i>	<i>nútni</i>
	FEM	<i>ntät</i>	<i>nútěnti</i>

Table 7. *Personal pronouns in Hadza, full forms*

		SG	PL
1	MASC	<i>ono</i>	<i>o(ne)bi</i>
	FEM		<i>obe</i>
2	MASC	<i>te(te)</i>	<i>itibi</i>
	FEM	<i>teko</i>	<i>itibe</i>
3	MASC	<i>itfe</i>	<i>itfebi</i>
	FEM	<i>itfeko</i>	<i>itfebe</i>

Table 8. *Enclitic pronouns in Nama*

		SG	DU	PL
1	MASC	<i>-ta</i>	<i>-khēm</i>	<i>-ke</i>
	FEM		<i>-m</i>	<i>-se</i>
	COMM			<i>-ta</i>
2	MASC	<i>-ts</i>	<i>-kho</i>	<i>-ko</i>
	FEM	<i>-s</i>	<i>-ro</i>	<i>-so</i>
	COMM	not given		<i>-tu</i>
3	MASC	<i>-p</i>	<i>-kha</i>	<i>-ku</i>
	FEM	<i>-s</i>	<i>-ra</i>	<i>-ti</i>
	COMM	<i>-i</i>		<i>-n</i>

4.3. *The Berber miscellany*

Ntifa independent pronouns are not the only black sheep in their family: in fact, Berber languages offer a whole variety of unruly patterns. For easier comparative reference we will use a shorthand representation of paradigms with pluses and minuses for the presence and absence of gender distinctions; numbers are arranged in columns, persons in rows.

Four types of offensive pronominal systems occur in Berber (7); two patterns are unexceptionable (8).

(7) a.	SG	PL	b.	SG	PL	c.	SG	PL	d.	SG	PL
1	—	—		—	+		—	+		—	—
2	+	+		+	+		+	+		—	+
3	—	+		+	+		—	+		+	+

(8) a.	—	—	b.	—	—
	+	+		+	—
	+	+		+	+

A survey of twelve languages or dialects¹¹ reveals that languages and form classes do not adopt these various patterns randomly.

Bound pronouns indicating possession in nouns are mostly of type (7a), with an offensive gender distinction gap in 3rd person; only Kabyle stands out by distinguishing gender also in 1st plural, which yields type (7c). Type (7a) is also the general pattern for bound pronouns for indirect objects with verbs. Table 9 serves to illustrate type (7a), taking bound possessives in Ntifa as an example (after Laoust 1918: 214). Bound pronouns for direct objects prefer the conformist pattern (8a) (with Zenaga here opting for equally unoffensive (8b)); only Ntifa remains loyal to type (7a), to the effect that, unparalleled in our Berber sample, all three sets of bound pronouns distribute genders over numbers according to a single pattern.

Independent pronouns as a rule come in only two patterns—one offensive, viz. (7b), as found in Ayt Seghrouchen, Ntifa, Shilha, Ouargla, Ayt Ndhir, and Kabyle; and the other unoffensive, viz. (8a), as in Ayt Ayache, Zenaga, Djebel Nefousa, Ghadames, and Ait-Sgougou. Type

Table 9. *Bound pronouns in Ntifa, nominal possession*

		SG	PL
1		-(i)nu	-(ě)nnâğ
2	MASC	-něk, -(ě)nk	-(ě)nnun
	FEM	-(ě)nem	-(ě)nnunt
3	MASC	-(ě)ns, -ěnns	-(ě)nsen
	FEM		-ěnsent, -nsěnt

(7b) has already been illustrated in Table 6. Tăhăggart is the only language in the sample to favour type (7c), and yet this very pattern has been claimed to be the proto-Berber one, at least in Prasse's (1972) reconstruction (cf. Table 10). Adding a gender contrast in the 3rd person singular to the alleged proto-Berber pattern (7c) yields (7b); stripping (7b) of gender in the 1st person plural produces type (8a), which, although unoffensive, is somewhat unusual in not extending the resources for feminine marking to 1st person plural. Table 11 compares the independent personal pronouns of Ayt Seghrouchen and Ayt Ayache (after Abdel-Massih 1971: 77, 35); and there seems no principled reason why *n_kn:inti* should not serve as the feminine 1st person plural in Ayt Ayache.

Verbal agreement markers (a form class to be dealt with again, like the wider subject of gender agreement) consistently use a different type, viz. (7d), as illustrated in Table 12 for Ayt Ayache (after Abdel-Massih 1971). Here it is the 2nd person which offends. There are two forms in Ouargla explicitly referring to masculine (*n_et*) and feminine (*n_emt*) genders, but *n_* on its own does duty as a gender-neutral form (Biarnay 1908).

In view of such caprice in this family, it is ironic that Greenberg himself should have had Berber in his thirty-language sample of 1963. Maybe his unidentified Berber representative was maverick Siwa, ungendered in the plural, or he only looked at independent pronouns and chanced on a paradigm of type (8a).

Table 10. *Independent pronouns in Tăhăggart and proto-Berber*

		Tăhăggart		proto-Berber	
		SG	PL	SG	PL
1	MASC	<i>nək</i>	<i>nəkkaniḍ</i>	<i>ənakkʷ</i>	<i>ənakkʷanī</i>
	FEM		<i>nəkkānetiḍ</i>		<i>ənakkʷanatiī</i>
2	MASC	<i>kay</i>	<i>kawaniḍ</i>	<i>kayy</i>	<i>kawanī</i>
	FEM	<i>kəm</i>	<i>kəmətiḍ</i>	<i>kamm</i>	<i>kamatiī</i>
3	MASC	<i>ənta</i>	<i>əntaniḍ</i>	<i>əntā</i>	<i>əntanī</i>
	FEM		<i>əntanətiḍ</i>		<i>əntanatiī</i>

Table 11. *Independent personal pronouns in Ayt Seghrouchen and Ayt Ayache*

		Ayt Seghrouchen		Ayt Ayache	
		SG	PL	SG	PL
1	MASC	ntš	ntšni	nk:	nkn:i
	FEM		ntšninti		
2	MASC	šk:	šn:i	šg:	kn:i
	FEM	šm:	šn:inti	šm:	kn:inti
3	MASC	nt:a	nitni	nt:a	nitni
	FEM	nt:at	nitnti	nt:at	nitnti

Table 12. *Person, number, and gender markers in Ayt Ayache verbs*

		SG	PL
1		—g	n—
2	MASC	t—d	t—m
	FEM		t—nt
3	MASC	i—	—n
	FEM	t—	—nt

4.4. *Adding to old pronouns*

The paradigms of personal pronouns are frequently felt to be in need of renovation, either in order to rescue distinctions in danger of being obliterated or to enhance their distinctive power. A popular way of doing this is by pressing existing words into pronominal service. If such words undergoing grammaticalization happen to inflect for gender, unlike the old pronouns themselves, and are appropriated only for non-singular parts of pronominal paradigms while retaining their genders, the gender-number universal is being flouted, at least on its stricter reading (37'). These innovated pronouns will thus have a gender contrast in the non-singular unparalleled in their own singular; but since their newly acquired

gender is due to the gender of other words, likewise inflecting for gender in the singular when on their own, the language in its entirety should know corresponding singular genders. However, some relevant words, such as numerals or quantifiers, may not have a proper singular to begin with.

Spanish (Romance, Indo-European) is a case in point. From the fourteenth century onwards, its plural subject and independent (or "disjunct") pronouns have been reinforced in the 1st and 2nd person by an adjectival word inflecting for gender in the regular adjectival manner, viz. *alteros*, *alteras* 'other' (MASC, FEM) (see recently García et al. 1990). As is seen in Table 13, the 3rd person singular pronoun also distinguishes masculine and feminine (and marginally neuter), which generous interpreters of Greenberg's Nos. 37/45 could seize on as saving the whole paradigm, even irrespective of gender distinctions elsewhere in Spanish, such as in adjective agreement.

In some other Romance languages—French, Italian, Sardinian—this reinforcement by *alteros/alteras* (which continues to show a masculine–feminine contrast in Italian and Sardinian but not French: It. *noi altri/altri*, Sd. *noisáteros/noisáteras*, Fr. *nous autres*) has not been grammaticalized to such an extent that it would bear on our universal, although it is utilized to distinguish 1st person exclusive (*noi altri*) from inclusive (*noi*).

Along similar lines, other languages—possibly even including varieties of English—may have grammaticalized or semi-grammaticalized expres-

Table 13. *Personal pronouns in Spanish, subject and disjunctive forms*

		SG	PL
1	MASC	<i>yo/mí</i>	<i>nosotros</i>
	FEM		<i>nosotras</i>
2	MASC	<i>tú/ti</i>	<i>vosotros</i>
	FEM		<i>vosotras</i>
3	MASC	<i>él</i>	<i>ellos</i>
	FEM	<i>ella</i>	<i>ellas</i>
	NEUT	<i>ello</i>	

sions like 'you guys' and 'you girls' as plural 2nd person personal pronouns, while leaving the old, simple 2nd person singular unembellished (**you guy*, **you girl*). Nouns distinguishing sex could thus conceivably serve to introduce gender into non-singular parts of pronominal paradigms.

A customary source for the grammaticalization or renovation of the dual is the numeral 'two', and, being a low numeral, 'two' is apt to inflect for gender in languages where modifiers agree in this category with nouns.

This is how the 1st, 2nd, and 3rd person personal pronouns of Lithuanian (Baltic, Indo-European) acquired masculine and feminine genders in the most marked number of all, the dual, with these genders being old acquaintances in both singular and plural of 3rd person (Table 14, after Senn 1966: 189ff.). It is in precisely those cases where the numeral itself had distinct gender forms that they also appear with dual pronouns (Table 15).

In Slovene (Slavonic, Indo-European), it was also the numeral 'two' which was drafted into the pronominal paradigm to create new duals. Here the story is slightly more complex, however, and involves the plural as well as the dual. Originally the three genders were confined to the 3rd person, singular as well as plural. As the numeral 'two' was added, it brought with it the gender distinction of masculine vs. feminine/neuter, foreign to 1st and 2nd person singular and plural. Furthermore, allowing for dialectal differences, the gender contrast made in the 3rd person, expressed through final vowels, was analogically extended also to the pronominal stems of 1st and 2nd person plural and dual, although with

Table 14. *Personal pronouns in Lithuanian, nominative case*

		SG	DU	PL
1	MASC	àš	mùdu	mės
	FEM		mùdvi	
2	MASC	tù	jùdu	jūs
	FEM		jùdvi	
3	MASC	jìs	jìėdu, juōdu	jìė...
	FEM	jì	jìėdvi, jōdvi	jōs

Table 15. *Dual of 1st and 2nd person pronoun and numeral 'two' in Lithuanian, all cases*

	1DU		2DU		numeral 'two'	
	MASC	FEM	MASC	FEM	MASC	FEM
N	<i>mùdu</i>	<i>mùdvi</i>	<i>jùdu</i>	<i>jùdvi</i>	<i>dù</i>	<i>dvi</i>
G	<i>mùdviejų</i>		<i>jùdviejų</i>		<i>dviejų</i>	
D	<i>mùdviem</i>		<i>jùdviem</i>		<i>dviem</i>	
A	<i>mùdu</i>	<i>mùdvi</i>	<i>jùdu</i>	<i>jùdvi</i>	<i>dù</i>	<i>dvi</i>
I	<i>mùdviem</i>		<i>jùdviem</i>		<i>dviẽm</i>	
L	<i>mùdviejuose</i> <i>mùdviese</i>	<i>mùdviejose</i>	<i>jùdviejuose</i> <i>jùdviese</i>	<i>jùdviejose</i>	<i>dviejuosè</i>	<i>dviejosè</i>

feminine not distinguished from neuter and essentially confined to the nominative case. As seen in Table 16 (after Tesnière 1925: 254 *passim*, Lencek 1982: 221–224, Priestly 1993: 406–408), as a result non-singular genders remain without a singular counterpart in 1st and 2nd person, though not in 3rd person.

Table 16. *Personal pronouns in Slovene, nominative case*

		SG	DU	PL
1	MASC	<i>jăz</i>	<i>mîdva</i>	<i>mî</i>
	FEM/NEUT		<i>mêdve, mîdve</i>	<i>mê</i>
2	MASC	<i>tî</i>	<i>vîdva</i>	<i>vî</i>
	FEM/NEUT		<i>vêdve, vîdve</i>	<i>vê</i>
3	MASC	<i>ôn</i>	<i>ônadva</i>	<i>óni</i>
	FEM	<i>óna</i>	<i>ônidve, onêdve</i>	<i>óne</i>
	NEUT	<i>óno</i>		<i>óna</i>

It is not always easy to ascertain whether the grammaticalization of the gender-introducing numeral is advanced far enough for pronominal systems to qualify as counterexamples owing to such inherited enrichments. Thus, for Hayu, a Tibeto-Burman language of Nepal, one of our sources, dating back as far as 1857 (but still found useful quite recently by Sherard 1986), recognizes a gender-distinguishing set of suffixes on personal pronouns,¹² formally identical to the plain numeral 'two', *nakpu/nangmi/nayung*. For Michailovsky (1988), however, this numeral is still just that whatever it combines with—a word on its own, not grammaticalized (or indeed degrammaticalized if it once was a suffix, as on Sherard's account) but in regular syntactic construction with personal pronouns as with any other kind of nominal, hence not part of the pronominal paradigm (see Table 17). As no crucial evidence is being provided, it remains to be seen whether the ties between pronoun and numeral are indeed as loose as Michailovsky would have it or whether univerbation has been well under way since before 1857, bringing Hayu pronouns in increasingly acute conflict even with the liberal reading of Greenberg's No. 45.

4.5. Unaccountably deviant duals and trials

The special behaviour of duals and also trials is not always straightforwardly attributable to how they come about through grammaticalization,

Table 17. *Personal pronouns in Hayu, absolutive case: A.D. 1857 and 1988*

A.D. 1857		SG	DU	PL
1		<i>go</i>	<i>go-nakpu</i>	<i>go-khata</i>
2		<i>gon</i>	<i>gon-chhe</i>	<i>(gonekhata?)</i>
3	MASC	<i>wathi</i>	<i>wathi-nakpu</i>	<i>wathi-katha</i>
	FEM		<i>wathi-nangmi</i>	
	NEUT		<i>wathi-nayung</i>	
A.D. 1988		SG	DU	PL
1		<i>gu ~ guu</i>		
2		<i>gon</i>	<i>gontshe</i>	<i>gone</i>
3		<i>komi</i>		

at least on the information that our sources provide about the internal structure of such doubly and triply marked forms.

In all languages dealt with in the present section (and also in Lithuanian and Hayu of Section 4.4), there is at least one person in the pronominal paradigm in which the spirit of the Greenbergian laws is doubly offended. Since the dual is generally considered to be more marked than both the singular and the plural, it has two opportunities of surpassing a less marked category in terms of genders. Read literally, Greenberg's universals Nos. 37 and 45, matching singular with non-singular and singular with plural respectively, say nothing on the relationship of non-singular numbers with each other.

Murui Witoto (Macro-Carib) has a two-way contrast of masculine/mixed vs. feminine in the dual of 1st and 2nd persons but not in their singular and plural (Table 18, after Burtch 1983: 149). The 3rd person pronoun has three genders in all three numbers.

A similar pattern, but bigger by one number and one gender, can be observed in Baniata, a non-Austronesian language spoken on one of the Solomon Islands (Yele-Solomons stock, East Papuan phylum). Both dual and trial have gender contrasts for all persons, but singular and plural only for 3rd (Table 19, after Todd 1975: 813). The dual and trial of 3rd person have three genders each—one more than the relatively less marked plural of that person.

In Vanimö, a non-Austronesian language spoken on the north coast of New Guinea (Sko stock), two genders are contrasted in all dual persons except 1st inclusive by suffixing to stems that are otherwise

Table 18. *Personal pronouns in Murui Witoto*

		SG	DU	PL
1	MASC/MIXED	<i>cue ~ cuè</i>	<i>coco</i>	<i>caɪ</i>
	FEM		<i>caɪñuaɪ</i>	
2	MASC/MIXED	<i>o</i>	<i>omico</i>	<i>omoɪ</i>
	FEM		<i>omiñtoɪ</i>	
3	MASC/MIXED	<i>imie</i>	<i>iaɪmaɪaɪ</i>	<i>imacɪ</i>
	FEM	<i>iñaiño</i>	<i>iaɪñuaɪ</i>	<i>iñaiñuaɪ</i>
	NEUT	<i>ie</i>		

Table 19. *Independent personal pronouns in Baniata*

			SG	DU	TR	PL
1	INCL	MASC		<i>be</i>	<i>meno</i>	<i>memo</i>
		FEM		<i>bebe</i>	<i>menu</i>	
	EXCL	MASC	<i>e:i</i>	<i>e:re</i>	<i>e:beno</i>	<i>e:bo</i>
		FEM		<i>e:rebe</i>	<i>e:benu</i>	
2		MASC	<i>noe</i>	<i>bere</i>	<i>mebeno</i>	<i>mebo</i>
		FEM		<i>berebe</i>	<i>mebenu</i>	
3		MASC	<i>zo</i>	<i>zere</i>	<i>noṁo</i>	<i>mo</i>
		FEM	<i>vo</i>	<i>robe</i>	<i>numo</i>	
		NEUT 1	<i>na</i>	<i>rede</i>	<i>nafi</i>	<i>no</i>
		NEUT 2	<i>no</i>			

gender-neutral the respective 3rd person singular pronoun, *-hei* for masculine and *-bei* for feminine (Table 20, after Laycock 1975). Singular and plural numbers do not differentiate gender in 1st and 2nd persons; and 3rd person will be postponed to Section 4.6.

Au, yet another relevant non-Austronesian language of New Guinea (Wapei family, Torricelli phylum), distinguishes three genders and three numbers in its 3rd person pronoun (Table 21, after Scorza 1985: 233). Instead of nine distinct 3rd person forms there are only five, and they are distributed over the paradigm in such a way as for the dual to be the only number to distinguish three genders, with singular and plural being limited to two, conflated differently in these two non-dual numbers. However unusual this paradigm is (also in terms of how the dual extends over persons; see Plank 1989), it is still the prevalent pattern for all kinds of 3rd person pronominals in this language.

Some Australian languages, all non-Pama-Nyungan, have masculine and feminine forms in all persons of the dual—or, as is more appropriate

Table 20. *Personal pronouns in Vanimo*

			SG	DU	PL
1	INCL			<i>emi</i>	<i>ni</i>
	EXCL	MASC	<i>ne</i>	<i>shei</i>	
		FEM		<i>sbei</i>	
2		MASC	<i>mi</i>	<i>blehei</i>	<i>ei</i>
		FEM		<i>blebei</i>	
3		MASC	<i>hei</i>	<i>dehei</i>	<i>deho</i>
		MIXED			<i>dei</i>
		FEM	<i>bei</i>	<i>debei</i>	<i>debu</i>

Table 21. *Personal pronouns in Au*

		SG	DU	PL
1		<i>hi</i>	<i>hawir</i>	<i>haiu</i>
2		<i>ti</i>	<i>yi</i>	
3	FEM	<i>hire</i>	<i>hir</i>	
	MASC	<i>hirak</i>	<i>hirakit</i>	
	NEUT		<i>hirem</i>	

for these languages, “unit augmented”—but otherwise confine gender, however richly differentiated, to 3rd person singular, or “minimal”. Table 22 gives a representative paradigm for Ndjébbana (after McKay 1984); but similar systems are found in Anindilyakwa (Leeding 1996), Nunggubuyu (Roberts 1996), Murrinhpatha (Walsh 1996), and Burarra (Glasgow 1984). In a variation on this theme, while oblique pronouns distinguish gender in the 3rd person singular in Burarra, nominative pronouns do not, thereby granting the dual an exclusive gender privilege.

Table 22. *Personal pronouns in Ndjébbana*

		MINIMAL	UNIT AUGMENTED	AUGMENTED
1	MASC	<i>ngáya-bba</i>	<i>njirriké-bba</i>	<i>njírra-bba</i>
	FEM		<i>njarrayá-bba-nja</i>	
1 + 2	MASC	<i>ngárra-bba</i>	<i>ngirriké-bba</i>	<i>ngúrra-bba</i>
	FEM		<i>ngarrayá-bba-nja</i>	
2	MASC	<i>njinjdja-bba</i>	<i>nirriké-bba</i>	<i>núrra-bba</i>
	FEM		<i>narrayá-bba-nja</i>	
3	MASC	<i>naké-bba</i>	<i>birriké-bba</i>	<i>barraya-bba</i>
	FEM	<i>ngayá-bba</i>	<i>barrayá-bba-nja</i>	

The 2nd person of pronouns in Olo, like Au a member of the Wapei family (Torricelli phylum), has gender only in the dual (Table 23, after McGregor & McGregor 1982: 25). The status of its gender-bearing marker (MASC *roungke*, FEM *roum*), added to the plural pronoun, is rather uncertain. The 3rd person shows gender (by stem suppletion) in both

Table 23. *Subject pronouns in Olo*

		SG	DU	PL
1		<i>ki</i>	<i>ku</i>	
2	MASC	<i>ye</i>	<i>ife rounge ~ ise rounge</i>	<i>ife ~ ise</i>
	FEM/MIXED		<i>ife roum ~ ise roum</i>	
3	MASC	<i>le</i>	<i>te</i>	<i>pe</i>
	FEM/MIXED	<i>ne</i>	<i>me</i>	

singular and dual but not in the plural. Neither dual nor plural has more genders than the singular, but the dual, although more marked, has more genders than the plural.

Lavukaleve, a close relative of Baniata (Yele-Solomons stock, East Papuan phylum), only commits the latter kind of offence: the three genders distinguished in the 3rd person dual (and singular) are syncretized in the plural (Table 24, after Todd 1975).¹³ The origin of this pattern is the reverse of what we saw in Section 4.4: instead of adding a gendered element to an ungendered stem, an ungendered element, viz. a dual marker *-l*, is being added to gendered singular stems.

Kamoro, a non-Austronesian language of New Guinea (Asmat-Kamoro family, Central and South New Guinea stock, Trans-New Guinea phylum), might also be charged with a dual offence, even though the relevant forms are perhaps not fully convincing (Table 25, after Boelaars 1950: 91). The gender distinction is confined to the dual of 2nd and 3rd person, which are in fact syncretic in this number. Both gender forms, strikingly elaborate in comparison with other pronouns, end in *-mané*, which is what the numeral 'two' looks like when used as a suffix. The stem of the masculine form, *ki-*, is reminiscent of the 2nd person plural pronoun without its plural marker (*ki-are* > *kare?*), whereas the feminine stem is identical to the lexeme 'woman', viz. *ka°ka* (Boelaars 1950: 92), with the purported 2nd and 3rd person dual feminine pronoun

Table 24. *Personal pronouns and postnominal particles (PNP) in Lavukaleve*

		SG	DU	PL
1	INCL		<i>mel</i>	<i>me</i>
	EXCL	<i>ñai</i>	<i>el</i>	<i>e</i>
2		<i>inu</i>	<i>imil</i>	<i>imi</i>
3	MASC	<i>hoina</i>	<i>hoinal</i>	<i>hoiva</i>
	FEM	<i>hoia</i>	<i>hoiaol</i>	
	NEUT	<i>hoga</i>	<i>hoigal</i>	
PNP	MASC	<i>na</i>	<i>nala</i>	<i>va</i>
	FEM	<i>la</i>	<i>la</i>	
	NEUT	<i>ga</i>	<i>gala</i>	

Table 25. *Personal pronouns in Kamoro, set I*

		SG	DU	PL
1		<i>noro</i>	<i>nare</i>	
2	MASC	<i>oro</i>	<i>ki-mané</i>	<i>kare</i>
	FEM		<i>ka°ka-mané</i>	
3	MASC	<i>are</i>	<i>ki-mané</i>	<i>are</i>
	FEM		<i>ka°ka-mané</i>	

thus having the literal, and less than fully pronominal, meaning 'two women'.

4.6. *Resolving conflicts of gender*

When singular forms distinguish genders, non-singular reference may create problems, once it combines different genders. Not distinguishing genders with non-singulars is one way of avoiding this dilemma. Thus, gender-neutral *they* in English is not only compatible with all-masculine (9a) and all-feminine (9b) but also with mixed-gender reference (9c):

- (9) a. *He saw him but they didn't recognize each other.*
 b. *She saw her but they didn't recognize each other.*
 c. *He saw her but they didn't recognize each other.*

Another strategy under such circumstances, when there is no non-singular form available that would be neutral as to gender, is to give priority to one of the regular genders, viz. that qualifying as unmarked—say, the masculine when reference is being made to both masculines and feminines, as in French (*il et elle ... ils/*elles*), or the neuter for any mixture of genders, including those of masculine and feminine, as in Icelandic. Yet another resolution of such gender conflicts is to provide a special form, distinct from the other genders and used solely when combinations of genders are not homogeneous.¹⁴ Owing to its rationale, this mixed gender would be without singular equivalent, even though there would have to be some genders in the singular to make some kind of gender resolution advisable in the first place.

In Vanimó, whose deviant dual got it a mention in the preceding section, gender conflicts are resolved in this manner. The relevant information can be gleaned from Table 20 above: Masculine and feminine genders are distinguished in all three numbers of the 3rd person, but the plural adds a third form to take care of mixed groups.

Nama Hottentot, already covered in Section 4.2, has an additional common gender in the plural of all three persons to refer to groups of mixed masculine and feminine membership; the dual uses feminine forms for such mixed groups. Table 8 above illustrates this pronominal pattern (after Böhm 1985: 135). Considering the inherently non-singular meaning of the common gender, Böhm's singular common forms, and especially 3rd person common singular *-i*, need an explanation.¹⁵ For Hagman (1977) this *-i* is something different, namely the marker of an indefinite gender which may replace any of the lexically assigned genders in case the referent is unknown, hypothetical, or even non-existent. On this interpretation this indefinite gender is independent of number, hence unproblematic for present purposes.

Bukiyip (also known as Mountain Arapesh, Torricelli phylum, Papuan) has three numbers and a rich and semantically largely opaque system of genders or noun classes (on which see below, Section 5.4). Of the more transparent genders one is feminine/female (class IV), another masculine/male (class VII), and yet another is characterized as "mixed or unspecified" (class VIII) by Conrad & Wogiga (1991: 8) since it comprises nouns such as 'child' and 'person (of unspecified sex)', alongside such less plausible members as 'trouble', 'fish net', or 'door'. 3rd person pronouns distinguish masculine and feminine in the singular, plural, and dual (assuming the dual is grammaticalized for 3rd person, which is dubious since the relevant forms look like regular combinations of the plural pronouns and the numeral 'two', *bia-*). As is seen in Table 26 (after Conrad & Wogiga 1991: 13–14; a further paradigmatic distinction is between proximal and distal), there is a gap in the paradigm insofar as 3rd person pronouns referring to humans have class VIII forms in the plural and dual but not in the singular. If class VIII is to be taken as a mixed masculine-and-feminine gender and is thus capable of resolving conflicts of gender, this makes sense for there can be no such mixture in the singular. Actually, singular reference could well be unspecified for sex, in case a speaker does not know, or care to specify, whether (s)he is referring to a woman or man; but according to our source that does not seem a circumstance where the paradigmatic gap would be filled. It is clear by which forms to fill it, though; and when pronominal reference is being made to non-humans, however, class VIII forms indeed do show up in the singular as expected (see again Table 26).¹⁶

Table 26. *Independent personal pronouns and demonstratives (selection) in Bukiyp*

			SG		DU	PL	
			PROX	DIST		PROX	DIST
1			<i>yek</i>		<i>ohwak</i>	<i>apak</i>	
2			<i>nyak</i>		<i>bwiepú</i>	<i>ipak</i>	
3	HUMAN	FEM (IV)	<i>okok</i>	<i>kwakwi</i>	<i>owo</i> <i>bwiou</i>	<i>owou</i>	<i>wawi</i>
		MASC (VII)	<i>énan</i>	<i>nani</i>	<i>omom</i> <i>bwiom</i>	<i>omom</i>	<i>mami</i>
		MIXED (VIII)	—	—	<i>echech</i> <i>bwiech</i>	<i>echech</i>	<i>chachi</i>
	NON-HUMAN	I	<i>ébab</i>	<i>babi</i>	—	<i>ébúsab</i>	<i>babasi</i>
		IV	<i>okok</i>	<i>kwakwi</i>	—	<i>owou</i>	<i>wawi</i>
		VII	<i>énan</i>	<i>nani</i>	—	<i>omom</i>	<i>mami</i>
		VIII	<i>enyeny</i>	<i>nyanyi</i>	—	<i>echech</i>	<i>chachi</i>

4.7. *By analogy*

Within paradigms forms are prone to get extended analogically. When this happens to forms distinguishing genders, gender may be transported where the Greenbergian universals would not have them.

Analogy was part of the Slovene grammaticalization scenario outlined above (Section 4.4), where a gender contrast at home in 3rd person got extended to 1st and 2nd person. A similar extension has been reported by Linder (1987: 16–20) for the Upper Engadine variety of Rhaeto-Romance, and here the pronominal gender is not due to a gendered word being grammaticalized. Rather, a formal contrast originally made only in 3rd person pronouns which traditionally distinguish two genders in both singular and plural was seized upon as a model also for 1st and 2nd person, but here only in the plural (Table 27, with the correct singular forms missing for lack of information).¹⁷ The old 1st and 2nd person pronouns (*nus*, *vus*) remained in use as the unmarked forms and were not restricted to masculine, but the innovated ones (*nussas*, *vussas*) are specifically feminine, contradicting No. 45 read strictly.

Table 27. *Personal pronouns in Upper Engadine Rhaeto-Romance*

		SG	PL
1	MASC/FEM	?	<i>nus</i>
	FEM		<i>nussas</i>
2	MASC/FEM	?	<i>vus</i>
	FEM		<i>vussas</i>
3	MASC	?	<i>els</i>
	FEM	?	<i>ellas</i>

4.8. *Other personal problems*

There are a couple of further finds which give offence in ways other than those we have so far distinguished.

Searching what is perhaps the best collection of sketches of pronominal systems available, Wiesemann (ed.) (1986), for genders in the wrong numbers, Spanish and Rikbaktsa (Macro-Jê, Jê-Pano-Carib) were the only offenders we encountered, out of twenty-one languages with gendered pronouns.¹⁸ (It is only fitting, then, that Joseph Greenberg should have contributed a foreword to this volume.) Apart from violating the 1st-implies-2nd law for the distribution of its masculine and feminine genders over persons in the singular (but the intersection of gender with person would be a different subject), Rikbaktsa personal pronouns distinguish genders everywhere except the 1st person plural and, more problematically, the 2nd person singular—schematically:

(10)	SG	PL
1	+	—
2	—	+
3	+	+

However, since genders are kept apart even for 2nd singular and 1st plural by means other than the pronouns themselves, this unusual offence should perhaps be excused as unpremeditated.

Of the two grammars we consulted for !Xũ (or !Kung), another Khoisan language (Northern group or Bushman-A), only one (Köhler 1981, see Table 28) interprets the suffix that is of crucial interest, *-!a:*, as a strictly masculine ending, thus effecting a gender contrast in the plural that is without a singular equivalent. Snyman (1970) lists forms with and

Table 28. *Independent personal pronouns in !Xũ*

			SG	DU	PL
1	INCL	MASC		m̃ tsha:	m̃!a:
		FEM/COMM			m̃
	EXCL	MASC	mi	'è: tsha:	'è:!a:
		FEM/COMM			'è:
2		MASC	'à:	'i: tsha:	'i:!a:
		FEM/COMM			'i:
3	CLASS I	MASC	fiq̃:	tsha:safiè:	sila:
		FEM		yì: tsāsàfiè: ~ sì: tsāsàfiè:	yì: ~ sì:
		COMM		sì: tsāsàfiè:	sì:
	CLASSES II-IV		no number contrast		

without *-!a:* as apparently being in free variation. The 3rd person is more complex. Class I pronouns denoting human beings distinguish no genders in the singular but as many as three in the dual and plural, including one dubbed 'common' (see Section 4.6 on Nama), using one variant of the feminine in this function.

Shirumba (Heiban, Kordofanian) is added here for the sake of completeness. Masculine and feminine genders are distinguished in both 1st persons of the plural, inclusive and exclusive, but nowhere else in the pronominal paradigm of that language, nor indeed of any other Heiban language either (Schadeberg 1981: 82-83). Together with the curious lack of a dual so popular elsewhere in Heiban, this has led Schadeberg to suspect that something is wrong with his own data.

5. Agreeing genders

Words other than personal pronouns may be the sources of gender (nouns) or the targets of syntactically close-knit gender agreement, at the

level of phrases (determiners and modifiers) or clauses (predicative elements).¹⁹ It is especially agreeing genders which are not disinclined to favour the forbidden numbers.

5.1. *Determiners (also coming on their own)*

In Latin, it is “determinative”, demonstrative, relative, interrogative, and indefinite pronouns that give offence. More precisely, the actual offenders are certain inflectional forms of these pronouns; and the offences committed might seem petty rather than capital, insofar as they contravene Greenberg’s No. 37 only on a very strict reading, that of No. 37”.

The “determinative” pronoun *is* ‘that, that one’—which also serves as an ersatz 3rd person personal pronoun and may thus occur as a self-sufficient noun phrase, but it differs from demonstrative pronouns by being unable to head nouns in the genitive (*iste*/**is deōrum* ‘that of the gods’)—inflects for number, case, and gender (determined by the reference of the pronoun, as established deictically or phorically), but not all numbers and cases show the same distinctions of gender (Table 29).²⁰ The nominative and accusative of *is* have analogous distinctions of three genders in the singular and plural. Equally well-behaved are the dative, where neither singular nor plural show any gender distinction (early Latin had a distinct feminine singular form *eae*), and the ablative, where the singular has more overt gender distinctions (MASC/NEUT vs. FEM) than the plural, conflating all three genders like the dative. What is at odds with No. 37” is the genitive: no gender distinction in the singular, but a two-way contrast (MASC/NEUT vs. FEM) in the plural.

That the genitive singular is entirely neglectful of gender while the genitive plural keeps apart the feminine from conflated masculine/neuter

Table 29. *Determinative pronoun is in Latin*

	SG			PL		
	MASC	NEUT	FEM	MASC	NEUT	FEM
NOMINATIVE	<i>is</i>	<i>id</i>	<i>ea</i>	<i>ī</i>	<i>ea</i>	<i>eae</i>
ACCUSATIVE	<i>eum</i>	<i>id</i>	<i>eam</i>	<i>eōs</i>	<i>ea</i>	<i>eās</i>
DATIVE	<i>eī</i>			<i>īis</i>		
ABLATIVE	<i>eō</i>		<i>eā</i>	<i>īis</i>		
GENITIVE	<i>ēius</i>			<i>eōrum</i>		<i>eārum</i>

is not an accidental homonymy in the paradigm of *is* but a pervasive pattern of the pronominal inflection of Latin, recurring with all compounds of *is* as well as with all demonstrative pronouns, with the relative pronoun (being largely identical with the interrogative), with (interrogative-based) indefinite pronouns, and with so-called pronominal adjectives (if they inflect for plural), as shown in Table 30. Agreeing adjectives are not thoroughly well-behaved either, but this is the subject of the next section.

5.2. Adjectives

Indo-European languages, or at any rate those inflecting more profusely, are rich in problematic adjective agreements, as is extensively documented in the handbooks. Nevertheless, there is no language on record which contradicts any generous reading of our universals. It is only certain cases, and mostly indeed a single one, of certain sub-classes of adjectives that challenge the Greenbergian spirit of the proper interaction of gender and number. A selection of relevant examples follows (see further Plank & Schellinger 1994).

Latin *o-/a-*stem adjectives syncretize masculine and neuter genders in the singular of the accusative (e.g. MASC/NEUT *māgnum* 'great', alongside FEM *māgnam*) but keep them separate in the plural (MASC *māgnōs*, NEUT *māgna*, FEM *māgnas*). The accusative of *o-/a-*stems in Ancient Greek is similarly negligent of gender in the plural: e.g., SG.MASC/NEUT *agathón* 'good' vs. PL.MASC *agathoús* and PL.NEUT *agathá*.

Table 30. Genitive of pronominal inflection in Latin

SINGULAR	PLURAL		
MASC/NEUT/FEM	MASC/NEUT	FEM	
<i>ēiusdem</i>	<i>eōrundem</i>	<i>eārundem</i>	'the same'
<i>ipsūus</i>	<i>ipsōrum</i>	<i>ipsārum</i>	'self'
<i>hūius</i>	<i>hōrum</i>	<i>hārum</i>	'this'
<i>istūus</i>	<i>istōrum</i>	<i>istārum</i>	'that'
<i>illūus</i>	<i>illōrum</i>	<i>illārum</i>	'that'
<i>cūius</i>	<i>quōrum</i>	<i>quārum</i>	'who/who?'
<i>alicūius</i>	<i>aliquōrum</i>	<i>aliquārum</i>	'someone'
<i>cūiusdam</i>	<i>quōrundam</i>	<i>quārundam</i>	'a certain (one)'
<i>cūiusquam</i>	<i>quōrumquam</i>	<i>quārumquam</i>	'anyone'
<i>nūllūus</i>	<i>nūllōrum</i>	<i>nūllārum</i>	'none'

Returning to Latin, the so-called adjectives of one termination (e.g. *fēlix* 'lucky'), otherwise members of the third declension, do not distinguish gender in the nominative singular, whence their name, but make a distinction between masculine/feminine (*fēlicēs*) and neuter (*fēlicia*) in the plural. This is also the pattern of all present participles.

Masculine and feminine genders also syncretize in the nominative singular of certain stems of the strong declension of Gothic (SG.MASC/FEM *hardus* 'hard', SG.NEUT *hardu*, but PL.MASC *hardjai*, PL.FEM *hardja*, PL.NEUT *hardjōs*). In the weak declension of Gothic it is the feminine and neuter genders which are not distinguished in the nominative singular (SG.FEM/NEUT *blindō* vs. PL.FEM *blindōna* and PL.NEUT *blindōns*).

In Lithuanian certain adjectives also show gender syncretism in the accusative singular. Adjectives ending in *-as/-a*, *-jas/-ja*, and *-ias/-ia* inflect according to Table 31 (most cases, a marginal neuter gender which has only one singular form, and the dual are omitted, as are suffix-initial *-j-* and *-i-*). Since adjectival gender is due to agreement, it could be argued that whole noun phrases hosting such adjectives are likely somehow to distinguish accusative singular from accusative plural. However, adjectival inflection is basically a replay of substantival inflection. Masculine adjectives inflect according to the first declension (type *púodas* 'pot'), and feminines take the second declension (type *kója* 'foot') as their role model. Both declensions, however, share a common ending for accusative singular, viz. *-ą* provided their nominative singulars both contain *-a-*. Thus, it should be possible for a first declension noun and a second declension noun to be completely identical in the accusative singular provided their roots are identical. This is frequently the case with nouns involving differential gender. With the help of several derivational affixes deverbal nouns can be formed which denote agents. According to the agent's sex they may belong to different declensions. First and second declension nouns containing the same vowel *-a-* are the trouble-makers, viz. those ending in *-tojas/-toja* and *-ėjas/-ėja* (e.g., *rašýtojas* 'male writer', *rašýtoja* 'female writer'). As a matter of fact, noun phrases like 'rich writer (male)'

Table 31. *Partial paradigm for certain adjectives of Lithuanian*

	SG		PL	
	MASC	FEM	MASC	FEM
NOMINATIVE	<i>-as</i>	<i>-a</i>	<i>-i</i>	<i>-os</i>
ACCUSATIVE	<i>-ą</i>		<i>-us</i>	<i>-as</i>

and 'rich writer (female)' are indistinguishable in the accusative singular; both translate as *turtinga rašytoja*. Basically the same story can be told of Lithuanian's closest extant relative, nearby Latvian.

Leaving Indo-European, adjectival agreement in Modern Literary Arabic (Semitic, Afro-Asiatic) is familiar enough and looks as if the genders come with exactly the right numbers. Nouns have two genders, masculine and feminine, and in the singular this contrast is faithfully reflected by agreeing adjectives.²¹ There are the same two genders in the plural (the dual can be disregarded); and in this number adjectives either follow their nouns in gender or the two genders are conflated, with the feminine singular forms serving as the gender-neutral plural agreement form. This seems a classic case of (partial) gender neutralization or defectivation in the marked number, no matter which particular form does duty in plural agreement (feminine singular, of all genders and numbers). What might, nevertheless, make Arabic problematic is the way adjectives decide whether to agree or not to agree in gender in the plural. Basically, it is when nouns have human or personal reference that adjectives maintain the contrast between masculine and feminine genders in the plural, while they do away with it when their nouns are non-human (e.g., Awad 1990). But that introduces a distinction into adjectival agreement which is arguably one of gender—human vs. non-human—and which is only observed in the plural. The actual plural agreement forms that look like feminine singulars would then have to be interpreted accordingly as expressing non-human gender, rather than as syncretizing masculine and feminine genders—which is what Killeen (1968) argues for, pointing out that such a non-human gender confined to the plural is at odds with Greenberg's No. 37.

5.3. *Verbs*

Verbs are generally less prone to agree in gender than are adjectives, but sometimes they do.²² For example, in Russian verbs inflect for number and gender (but not person) in the preterite, and they behave as expected in terms of universal No. 37, distinguishing genders only in the singular (Table 32).

In Slovene, finite verbs likewise inflect for gender (though only optionally) and number, and also for person, but—as we have come to expect of this language—the distribution of (optional) genders over numbers is problematic, this time perhaps even for generous readers of Greenberg's relevant universals. Slovene has innovated a gender contrast in dual person-number inflections, which for chronological reasons cannot have been modelled on the corresponding gender contrast in pronouns (accord-

Table 32. *Preterite verb inflection in Russian*

	SG	PL
MASC	<i>delal</i>	<i>delali</i>
FEM	<i>delala</i>	
NEUT	<i>delalo</i>	

ing to Tesnière 1925: 409–423), with verbal genders appearing as early as the sixteenth century. The offensive paradigm of present tense indicative endings of (Contemporary Standard) Slovene verbs is given in Table 33. While 2nd and 3rd person are conflated in the dual, this is the only number where gender can be distinguished. The primary dual forms are *-va* and *-ta*, but if the subject that governs verb-agreement does not consist of, or does not include, a masculine noun or pronoun, non-masculine dual forms *-ve* and *-te* may be used instead. This distinction is optional, and is apparently rarely (if ever) made in Contemporary Standard Slovene, but it is, or used to be, well-established in southern and eastern dialects. For Contemporary Standard Slovene, where the *-va/-ve* and *-ta/-te* contrasts have been virtually abandoned, Tesnière (1925: 421) notes an intriguing variation on this theme: When the dual subject is masculine, the verb takes the dual desinences *-va* and *-ta*; but when the dual subject is (at least partly) non-masculine, the verb opts for plural. Thus, gender is being distinguished indirectly in the non-singular, being parasitical on the number contrast of dual and plural.

It is unclear whether the Slovene innovation of a gender contrast in dual person-number inflections has been extended to the imperative, usually given as in Table 34. While Tesnière (1925) does not specifically

Table 33. *Present tense indicative endings of verbs in (Contemporary Standard) Slovene*

	SG	DU		PL
		MASC	FEM/NEUT	
1	<i>-m</i>	<i>-va</i>	<i>-ve</i>	<i>-mo</i>
2	<i>-s</i>	<i>-ta</i>	<i>-te</i>	
3	<i>-Ø</i>			
				<i>-jo</i> (<i>-(j)ó, -é</i>)

Table 34. *Imperative endings in Slovene*

	SG	DU	PL
1	—	<i>-iva</i>	<i>-imo</i>
2	<i>-i</i>	<i>-ita</i>	<i>-ite</i>
3	<i>(-i)</i>	—	—

mention any dual imperatives, 1st and 2nd/3rd dual forms with feminine/neuter *-ive* and *-ite* corresponding to indicative *-ve* and *-te* are elsewhere claimed to exist as “now rare and archaic” (Priestly 1993: 416).

Standard Latvian verbs (Baltic, Indo-European) have special reflexive forms which, like other non-compound finite verb forms, do not know gender. Certain dialectal varieties, however, have innovated a two-way gender contrast in the 1st and 2nd persons of the plural (Fraenkel 1938–40). The Upper Latvian dialect of Lubāna thus distinguishes masculine plural *-mīs* from feminine plural *-mās/-mēs* in the 1st person of the present tense reflexive, and masculine plural *-tīs* from feminine plural *-tēs* in the 2nd. Reflexive forms in the preterite and future tenses behave the same (Gāters 1977: 135–137). Apparently such forms were remodelled after reflexive participles which generally contrast genders.

5.4. *Essentially all agreeers*

The actual agreement forms or at any rate the agreement patterns may be the same for essentially all classes of agreeing words in a language, or such word class distinctions—like that of verb and adjective—may also be difficult to establish in the first place, rendering agreement perforce more uniform. Thus, if a gender picks the wrong number, it is bound to do so across the board under such circumstances.

Bukiyip, already on record owing to its mixed-gender 3rd person non-singular pronouns (Section 4.6), does not always distinguish its many genders or noun classes equally well in the singular, dual, and plural in its various agreement patterns. Sometimes there are fewer distinctions in one number than in the others, and this less distinctive number is in several cases the singular rather than a non-singular, as shown in Table 35 (after Conrad & Wogiga 1991).

The eleven genders or noun classes in Yimas (Lower Sepik family, Papuan) manifest themselves with two main classes of agreeers, adjectives and verbs, and again gender contrasts are not always parallel in the singular, dual, and plural, nor do they pattern exactly the same in adjectival and verbal agreement. Thus, as is seen in Table 36 (after Foley

Table 35. *Number/gender agreement in Bukiyip, classes VI and VII*

	SG	PL		SG	PL
proximal pronoun			noun suffix		
CLASS VI	énan	ébab	CLASS VI	-n/-nú	-b
CLASS VII		omom	CLASS VII		-m
distal pronoun			adjective suffix		
CLASS VI	nani	babi	CLASS VI	-nali	-bi
CLASS VII		mami	CLASS VII		-mi
demonstrative			verb prefix		
CLASS VI	énúdak	ébúdak	CLASS VI	-n	-b
CLASS VII		énúdak	CLASS VII		-h

Table 36. *Adjective and verbal agreement in Yimas, selected genders*

	Adjective			Verb		
	SG	DU	PL	SG	DU	PL
II	<i>-nmaŋ</i>	<i>-nprum</i>	<i>-nput</i>	<i>na-</i>	<i>impa-</i>	<i>pu-</i>
I	<i>-n</i>	<i>-rim</i>	<i>-um</i>			
III			<i>-ra</i>		<i>tima-</i>	<i>Ø-i-a-</i>
V						

1986: 86–89, as interpreted by Corbett 1991: 176–177) for four selected genders (I, II, III, and V), adjectival agreement suffixes are most gender-distinctive in the plural, with a three-way contrast as compared to the binary one in the singular and dual; verbal agreement prefixes do not

observe any gender contrast here in the singular, with two different binary contrasts made in the dual and plural.

Krongo exceeds its closest relatives within the Kadugli group (whose affiliation with either Kordofanian or Nilo-Saharan is controversial) in genders, adding a peculiarity to the more widespread masculine, feminine, and neuter (Reh 1985: 101–144). It is again in the agreement of most kinds of elements within noun phrases and of the predicate that noun genders manifest themselves in Krongo. Nouns themselves do not normally show gender, and 3rd person personal pronouns, in keeping with Greenberg's No. 45, distinguish masculine, feminine, and neuter only in the singular but not in the plural, with the 3rd plural form identical to 3rd singular neuter. The relationship between gender and number is not straightforward, nor is the assignment of genders to nouns. Masculine, feminine, and neuter are neutral as to number: nouns may be in any of these genders in both the singular and the plural, with masculine being most and neuter least versatile in this respect; and they may be in the same or, within certain limits, also in different genders in these two numbers (Table 37, (a) and (b) respectively; after Reh 1985: 126–130). There is also a further gender which is structurally on a par with masculine, feminine, and neuter, but unlike these it is categorically limited to the plural (and is therefore called "plural gender" by Reh, abbreviated as PLUR in Table 37, (c)), in violation even of the liberal reading of Greenberg's universal No. 37. There is also number marking, on nouns and in agreement, that is formally independent of gender. Nonetheless, there are affinities between the "plural gender" and genuine number which suggest that there is no deep categorial chasm between them—which is perhaps a mitigating circumstance in the case of Krongo's supernumerary plural gender. Thus, when verbs agree with nominal or with unexpressed anaphoric subjects, they do so in gender, with *k-* as the agreement prefix for the "plural gender"; but when the subject is a 1st

Table 37. *Genders in Krongo exemplified, in singular and plural*

	SG		PL		
(a)	MASC	<i>fànbàŋ</i>	MASC	<i>ànbàŋ</i>	'drum'
(b)	FEM	<i>bòlòocoŋ</i>	MASC	<i>òlòócóŋ</i>	'door'
(c)	MASC	<i>rí</i>	PLUR	<i>náarí</i>	'brook'
	FEM	<i>mètécá</i>	PLUR	<i>náacá</i>	'rib'
	NEUT	<i>nì</i>	PLUR	<i>nóonì</i>	'snake'

or 2nd person pronoun, verb agreement is exclusively in number, with the same prefix *k-* now serving as an indicator of plural (Reh 1985: 184–186).

6. Nouns themselves

When nouns themselves carry overt gender marking, in addition to inflecting for number, they are equally liable to misbehave by distinguishing more genders in the singular than in non-singulars. They do not seem to do so frequently, though.

Bukiyip and Yimas of the preceding section are cases in point: the gender markers on nouns show the same occasional offensive conflation as the gender agreement forms. On the assumption that the choice of certain plural allomorphs is an indication of a noun's gender in Modern Literary Arabic, the non-human gender that can arguably be recognized in plural agreement (Section 5.2) can be attributed to nouns too, for they may also utilize what looks like the feminine singular as their exponent of plural.

The easiest way for nouns to get in conflict with the gender-number regulations is to leave their singular unmarked and not to settle for uniform marking of the plural. If the several plural alternatives, of which one may again be zero, are distributed along lines suggestive of genders—say, in terms of animacy—then formal contrasts of this kind would automatically be confined to the plural, since with no overt marking singulars simply have no chance to differ from one noun to the other. This scenario is by no means hypothetical; there are many languages, including the Algonquian and Mongolian families, which do exactly what is shown schematically in (11), with \emptyset , x , and y representing exponents of number.²³

(11)		SG	PL
	animates	\emptyset	x
	inanimates	\emptyset	\emptyset/y

The question, however, is whether such differential plural marking for animate and inanimate, human and non-human, kin and distant, rational and non-rational nouns and the like, for all its similarity to the semantics of gender, as such suffices to qualify a language for membership in the gender club. If the answer is affirmative, as it was for de la Grasserie (1906: 1–2) or Royen (1929: 512–514), then these genders come with the wrong number, with right and wrong as defined by universal No. 37/37'/37". If the recognition of genuine gender is made conditional on the utilization of such contrasts for purposes of agreement, as it is by

Corbett (1991) and others, differential plural marking as such does not bear on the universal. Of the families mentioned as following scheme (11), Mongolian lacks gender agreement, and in Algonquian animate and inanimate agreeing genders are distinguished in the singular no less than in the plural, thereby avoiding any seriously comprehensive clash with the law.

7. Licensing laws

Contrary to what has sometimes been assumed, the law about the uneven distribution of gender over numbers, with non-singular genders implying singular counterparts, is not so unusual among its kind as to be without exceptions. Most of the time it is only the stricter, but theoretically more interesting, readings of this law, spelled out above as Nos. 37'/37'', that are being offended against. Some of the current evidence, however, is also inconsistent with its more liberal interpretation, which permits different words or word forms to compensate for each other's gender deficiencies.

The genetic, areal, and typological provenance of the exceptional languages is fairly diverse. Suggesting some intra-family predilection to misbehave, it is Berber which contributes most prolifically to our collection, owing to its several unorthodox gender patterns in pronominal paradigms.

It is hard to know whether the amount of exceptions now on record should cause concern. Encouragingly, it is still with more than chance frequency that gender distinctions prefer the singular over non-singulars, especially when this is intended as a claim about whole languages rather than individual words or even word forms. Nonetheless, when well above 10% of the languages examined are at odds with what is being predicted (and not all of them hail from the Berber family),²⁴ this would not seem an entirely negligible margin—if you believe that universals are supposed to hold universally rather than only often.

In the case at hand there are grounds to doubt that the law's validity could possibly be universal, for there are several good functional and diachronic reasons for gender distinctions to be preferred in non-singular numbers: a special additional gender may be found useful in the plural or another non-singular number to solve a gender conflict which cannot arise in the singular; genders may be imported into the non-singular parts of paradigms as words distinguishing gender are being grammaticalized in such non-singular functions; gender-distinctive forms may get analogically extended to only those parts of their paradigms that are formally suitable; or the overt marking of number, simultaneously distinguishing

gender, may be limited to non-singulars. Actually, what we have not dwelled on at all here is the justification of markedness evaluations of numbers on which the gender-number law rests. Arguably, a case could be made for seeing these things differently, across the board or at least for individual nouns, with the plural or sometimes also the dual as unmarked; but this is not within our present remit.

To improve the fit between prediction and reality if it is found unsatisfactory, one might try revising the prediction rather than simply suspend it as empirically too imperfect. Thus, in order to refine a global implication such as Greenberg's No. 45, pertaining only to pronouns, we might take persons into account in constraining the intersection of number and gender a little more elaborately. After all, gender is also supposed to be unevenly distributed over persons, with 3rd and perhaps also 2nd person gender-worthier than 1st—which is in fact another universal of Greenberg's (1963, No. 44). And this ranking of persons might be in influence also in the selective licensing of violations of the law that non-singular genders imply singular genders.

What might be expected along these lines is that non-singular genders without a singular equivalent in less gender-worthy persons need the authorization of genders, singular or non-singular, in gender-worthier persons. Rules of authorization such as the following appear to account for virtually all attested pronominal patterns, where "p authorizes q" means "no q without p" and a gender distinction in a non-singular person can get its authorization from different sources:

- (i) A gender distinction in the singular authorizes the same gender distinction in non-singular numbers of the corresponding person.
- (ii) A gender distinction in 3rd person singular authorizes the same gender distinction in 1st and/or 2nd person non-singular.
- (iii) A gender distinction in 3rd person non-singular needs no special authorization.
- (iv) If gender is limited to non-singular, a gender distinction in 3rd person authorizes the same gender distinction in 2nd person, which in turn authorizes the same gender distinction in 1st person.

Rule (i) is in the spirit of Greenberg's No. 45, and takes care of what the majority of languages with gendered pronouns feel authorized to do. Rule (ii) gives the gender-worthiest combination of person and number authority to license the same gender distinction in less or in fact least gender-worthy person-number combinations; which is perhaps understandable also on the grounds that 1st and 2nd person plural typically include reference to one or more "others" (i.e. non-speakers/non-addressees, or 3rd persons), and these are gender-worthiest.²⁵ Rules (iii) and (iv)

merely reassert the hierarchy of persons, with 3rd in particular on top, hence above the authority of any others.

A problem with these rules of authorization is that they permit a few patterns too many—or at any rate the following ones have not yet made it into our files:

(12)		SG	PL
a.	1	+	—
	2	—	—
	3	—	+
b.	1	—	—
	2	+	—
	3	—	+
c.	1	—	—
	2	—	+
	3	+	—

And, inevitably, there are a couple of exceptions on record, and, equally inevitably, they are again Berber. Bound pronouns in Kabyle and independent pronouns in Tāhāggart, Tuareg, and possibly proto-Berber distribute their genders over numbers and persons in this curious fashion (repeating (7c) of Section 4.3):

(13)	SG	PL
1	—	+
2	+	+
3	—	+

Gender in 2nd plural is authorized by gender in 2nd singular, as per (i). Gender in 3rd plural needs no special authorization, as per (iii). But, under the circumstances, with gender not confined to plural, there is no rule to authorize gender in 1st plural. Gender in 3rd singular could do this, as per (ii), but there is none. 3rd could license 2nd and 2nd in turn 1st in the plural, but rule (iv) requires the singular to abstain from gender, and 2nd person here irresponsibly indulges.

Received: 19 August 1996

Universität Konstanz

Revised: 2 September 1996

Notes

An earlier version of this paper, drawing on conversations with some of our EUROTYP friends in 1993–94, was read at the pre-inaugural meeting of ALT at Konstanz, 1 December 1994. In addition to Grev Corbett, Edith Moravcsik, and Johan

van der Auwera, active participants in the conversations serialized, as well as immemorialized, in *EUROTYP Working Papers* VII/20 and 23, we are grateful to Sasha Aikhenvald, Catherine Chvany, Jan Rijkhoff, Leon Stassen, Urmaz Sutrop, and numerous others who shall be nameless for attempting to add to our fund of counterexamples, and to Hans Arndt for some Danish background.

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1. It is on such grounds that a plural that is neutral as to gender is sometimes analysed as a term on a par with the terms of gender distinguished in the singular, that is, as representing itself a gender.

Another possible way of gender interacting with number is for it to be an influence in the selection of alternative exponents of numbers (or vice versa). Thus, grammars of Danish sometimes give rules such as "Consonant-final monosyllables (mostly) take plural *-e* when of common gender (*vej* – *vej-e* 'road(s)') and *-Ø* when of neuter gender (*æg* – *æg-Ø* 'egg(s)')" (Allan, Holmes, & Lundskaer-Nielsen 1995: 22). In this manner, provided such regularities can be justified, plural forms might at least be sensitive to gender contrasts, without necessarily (co-)expressing gender.

2. Actually, it was not always clear to Hjelmlev that number and gender are separate categories in the first place (see 1972: 90–103). And he was not the first nor the last to be plagued by such not unreasonable doubts.
3. For more recent variations on such themes in morphological theorizing, with an emphasis on how the types of exponents (cumulative or separatist) influence the structure and size of paradigms, see Plank (1986), Carstairs (1987: Ch. 4), and the authors gathered in Plank (ed.) (1991).
4. Grev Corbett claims he can; see Plank, Schellinger, et al. (1994: 82–83). Nos. 37 and 45 are not the only Greenbergian universals to suffer from this kind of ambiguity. See Plank (1989: 317–318) on similar problems with the claim that a dual implies a plural (No. 34), which is probably true for languages, but not for words.
5. See Plank (ed.) (1991) for various attempts to distinguish between accidental and systematic non-distinctness of inflections.
6. The problem here is that declension classes also fit this more inclusive bill, and they differ from gender in not being involved in agreement.
7. Limiting gender to an agreement phenomenon, as does Corbett (1991), runs the risk of precluding the recognition of gender with 1st and 2nd person personal pronouns. Languages with agreement only WITHIN noun phrases would have no chance of having anything agree with pronouns not apt to take modifiers or determiners, nor would these deictic pronouns, unlike their 3rd person companions, be agreeing in gender with nouns. Whenever gender *is* an agreement category, Corbett's distinction between "controller gender" and "target gender" is a useful and sometimes a necessary one, but it is not clear to us why Greenberg's universal No. 37 has got to be stated in terms of target genders (1991: 156).
8. Dual and plural 3rd person animate forms are composite pronouns. Their *dó* part may be omitted under certain circumstances.
9. Unlike Lemaréchal (1993) and Josephs (1975), Hagège (1986) does not report a gender distinction in pronouns other than object forms, with emphatic *tir*, and likewise the relevant subject and possessive pronouns, listed as both human and non-human.
10. It is discomfiting, therefore, that Tocharian A should have innovated a gender contrast in the 1st singular, of all persons and numbers (MASC *nās* vs. FEM *ñuk*), for reasons

- that remain suitably controversial (cf. Thomas 1985: 65–66). At least demonstratives, doing duty for 3rd person pronouns, also have genders in both Tocharian A and B.
11. Sources: Abdel-Massih 1971 (on Ayt Ayache and Ayt Seghrouchen); Loubignac 1924 (on Ait-Sgougou); Basset 1909 (on Zenaga); Calassanti-Motyliniski 1898 and 1904 (on Djebel Nefousa and Ghadames, respectively); Justinard 1914 (on Shilha); Biarnay 1908 (on Ouargla); Laoust 1918 (on Ntifa); Bisson 1940 (on Ayt Ndhir); Cortade 1969 and Prasse 1972 (on Tāhāggart); Chaker 1983 (on Kabyle). Siwa, spoken in an oasis of Egypt, avoids all trouble by doing away with gender in the plural altogether (Laoust 1931).
 12. The numeral-based dual marker is only used in the 1st and 3rd person, but without the available gender distinctions being exploited in 1st person. The 2nd person uses the dual suffix *-chhe/-tshe* which is common in Tibeto-Burman.
 13. 3rd person pronouns in Lavukaleve are demonstratives with gender-number suffixes resembling postnominal particles (PNP), which thus show the same pattern (see Table 24).
 14. In Corbett's otherwise detailed survey of gender resolution (1991: Chapter 9) this last possibility appears to be ignored. Elsewhere (1991: 203–224) Corbett does deal with "neutral" and "evasive" forms resorted to when the choice of a gender is somehow problematic, including the simple circumstance that it is unknown; but these are not ones specific to non-singulars.
 15. In 1st person singular all three genders are supposed to syncretize, and for 2nd person singular no forms are given at all.
 16. Aronoff (1992) argues that this is the default gender also in other circumstances.
 17. Forms such as *nusotras* (1st person) and *vusotras* (2nd), also attested in Rhaeto-Romance (see Section 4.4), may have been an influence too.
 18. Another collection of pronominal paradigms, Forchheimer (1953), features Spanish, Shilha (Berber), and Kakadu (of Arnhem Land, an isolate within Australian) as showing unusual number preferences of gender (pp. 34–35).
 19. See Corbett (1991: 106–115) for a survey of gender agreeers, including adverbs, adpositions, and complementizers.
 20. Terminology and facts are from Gildersleeve & Lodge (1895: §§102–107); formal variants not bearing on the present issue are disregarded.
 21. It is also relevant for choosing the noun's own plural. Certain other noun-phrase elements may practise polarity, reversing their noun's gender.
 22. Sometimes this is a habit they have retained from their participial past, participles being more enthusiastic gender agreeers, owing to their adjectival nature.
 23. In Section 4.1, Katu and Palau were seen to observe a similar principle in their number marking of pronouns.
 24. It is impossible to give precise percentages of offences because this depends on how to define gender, which will increase or decrease the number of languages that the gender-number law bears on to begin with.
 25. When gender contrasts are transferred to offensive non-singulars, by intraparadigmatic analogy or in the course of grammaticalization, it is in this direction, as was seen in Sections 4.7 and 4.4.

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