

the numeral equivalent(s) for each and every word and consequently to propose distinct values for each of them. There are several types of calculation under the generic name 'gematria,' most of them described in manuscript manuals. In most cases implicitly, but sometimes also explicitly, the use of gematria presupposes the divine, or at least a nonconventional, nature of the Hebrew language, which ensures the significance or the numerical relations. The Hebrew consonants of the name of the Emperor Nero (*nrwn qysr*), for example, add up to 666, the number of the 'Beast' in Revelation, and for Jesus (*yshw*) to the same total as 'the alien god' (*elohei nekhar*) in Deuteronomy 21: 16 and elsewhere.

There are two different explanations as to the origin of the gematria device in Judaism: that of Saul Lieberman, which attributed it to Greek sources and that of Stephen J. Lieberman, which makes a strong case for the importance of Mesopotamian sources which could have eventually influenced also the Greek texts.

Though found in many instances in the earlier strata of Jewish writings, Midrashic and Talmudic literatures, gematria was not allowed a decisive role in the hermeneutics of their authors. In medieval Jewish speculative writings, however, especially those belonging to mystical corpora, the use of gematria is widespread and conspicuous. Occurrences of gematria are especially evident in the extensive literature dealing with calculations of the date of the advent of the Messiah. Though there were a few important authors opposed to too great a reliance on mathematical calculations, like Rabbi Abraham ibn Ezra and Rabbi Moses ben Nahman (Nahmanides), in general, medieval, Renaissance, and even later Jewish authors display sympathy toward this technique. The first systematic exposition of a wide spectrum of gematria techniques is found in the Hasidic Ashkenaz literature, written in Germany, especially that written by Rabbi Yehudah he-Hasid and Rabbi Eleazar of Worms (twelfth to thirteenth centuries), who not only explained them in detail, but also used them extensively in their exegetical writings. Especially famous is the Commentary on the Pentateuch, written at the beginning of the fourteenth century by Rabbi Jacob ben Asher, which is entirely based on numerological speculation.

In medieval texts, 'gematria' became a generic term referring not only to the calculation of the numerical values of each letter of a word, but also for other linguistic components like the value of the letters which make up the name of each letter, and their vocalization. Gematria is also crucial for the understanding of the dense *Commentary on Sepher Yetsirah* of Rabbi Barukh Togarmi (ca. 1260). Under their influence, the ecstatic Kabbalah, founded by Rabbi Abraham Abulafia (1240-ca. 1292), adopted gematria as a major vehicle for expressing its views. The device became an integral part of their conception of *kabbalah*, and it was used, together with other linguistic devices like *notariqon* (anagram) and *temura* (metathesis) as part of the creative process of word association characteristic of this kind of *kabbalah*. Sometimes, *kabbalah* was defined as including the technique of gematria. In this school, the device is applied not only as part of the interpretation of the canonical texts but of any text at all, and even in cases of non-Hebrew words, as part of the effort to extract new insights, rather than to reinforce the accepted views, as is

often the case in the previous types of literature. Thirteenth-century kabbalists observed that in gematria 'Satan' (=359) was equivalent to the Hebrew for 'the evil body' (*guf ra'*), and therefore to be understood not as an external, independent power, but rather as an integral part of the human constitution.

Very rare in Catalan *kabbalah*, gematria played a more important role in Castilian mystical writings from the second part of the thirteenth century. It was then that this kind of numerology combined with kabbalistic theosophy. Gematria played an important role in Lurianic kabbalistic literature, especially in its European versions, such as Polish *kabbalah* at the beginning of the seventeenth century, and likewise in some of the Sabbatean literature of the following century. A well-known Sabbatean example of gematria relates the Hebrew form of the name of their founder, Shabbatai Zevi, whose numerical value is 814, to the divine name *shaddai* 'the Almighty,' which has the same value. In the Hasidic literature of the eighteenth and nineteenth centuries as a whole, there was a decline in its popularity, though in the Viznitz line of Hasidism it is still prominent.

Due to a deep interest among Christian kabbalists in Jewish exegetical techniques, Renaissance Christian kabbalistic literature is replete with explanations based on gematria. This is peculiarly evident in the writings of the influential German humanist, Johannes Reuchlin (1455-1522), and in the work of Francesco Giorgio of Venice.

See also: Alphabet: Religious Beliefs; Hebrew, Biblical and Jewish.

Bibliography

- Dan J 1980 The Ashkenazi Hasidic 'Gates of Wisdom.' In: Nahon G, Touati Ch (eds.) *Hommage à Georges Vajda*. Peeters, Louvain
- Dornzeiff F 1925 *Das Alphabet in Mystik und Magie*. B. G. Teubner, Leipzig
- Idel M 1989 *Language, Torah and Hermeneutics in Abraham Abulafia*. State University of New York Press, Albany, NY
- Lieberman S 1962 *Hellenism in Jewish Palestine*. Theological Seminary of America, New York
- Lieberman S J 1987 A Mesopotamian background for so-called Aggadic 'measures' of biblical hermeneutics. *Hebrew Union College Annual* LVIII: 157-225
- Sambursky S 1976 The origin and the meaning of the term *Gematria*. *Tarbitz* 45: 268-71 [Hebrew]
- Scholem G 1971 *Kabbalah*. Keter Publishing House, Jerusalem

M. Idel

Gender and Gender Systems

Gender is a fascinating category, which shows great variety in several respects. If its distribution in the world's languages is reviewed, families like Indo-European and Dravidian are revealed where gender is widespread, and others like Uralic where it is absent. In languages which have gender, it may be central, forming an essential part of the lexical, syntactic, and morphological structure (as in German), or it may be more peripheral (as in English). Even the number of genders varies considerably: two and three genders are found commonly, four and five are not

unusual, while Fula (a Niger-Kordofanian language) has around twenty, depending on the dialect. Gender systems may have sex as a component, as in languages with masculine and feminine genders; but equally sex may be irrelevant, as in the Algonquian languages where the distinction is between animate and inanimate. The defining characteristic of gender is agreement. There is no substantive difference between 'genders' and 'noun classes'; the different terms are merely the products of different linguistic traditions. (For fuller information and extensive references see Corbett 1991.)

1. Gender Systems

Definitions have been a problem in the study of gender. To demonstrate the existence of a gender system evidence is required from agreement, that is, evidence outside the noun itself. The most successful approach to the definition problem is that based on Zaliznjak's (1964) notion of 'agreement class.' The basic idea is that two nouns are in the same agreement class only if they take the same agreements under all conditions. If two nouns belong to two different agreement classes it will normally be the case that they belong to two different genders; but there are complications here. To take a concrete example the nouns of French can be divided into two sets according to the agreements they take (1-2):

- (1) un grand garçon
a big boy
- (2) une grande femme
a big woman

The form of the article and of the adjective has to change to agree with the particular noun. There are many thousands of nouns like *garçon* in (1); many of them denote male humans and so the gender which they form is called the 'masculine gender.' However, there are also many nouns, like *camion* 'lorry,' which denote inanimates but which take the same agreements as *garçon*, and so are also members of the masculine gender. Similarly, there are many thousands of nouns like *femme* 'woman,' some denoting females and some not, which make up the 'feminine gender.'

1.1 Controller and Target Genders

French is straightforward in that the nouns divide into two genders, and there are two sets of agreeing markers, on adjectives and other agreement targets, which mirror the division of nouns. But there are languages where the situation is more complex. Romanian, for example, has a masculine and a feminine gender similar to that of French. But there is a third, substantial set of nouns which when singular take the same agreements as the masculines, but when plural take the same agreements as the feminines. Clearly these do not belong in the same agreement class as either of the other two, and they form a third gender (sometimes called 'neuter,' sometimes 'ambigeneric'). There is no third set of agreement markers. This shows the need to make a distinction between the genders into which nouns are divided, the 'controller genders,' and the number of distinctions made by agreement targets, the 'target genders.' These may correspond, as in French, where there are two controller genders, and two target genders. But sometimes they do not correspond, as in Romanian; here there are three controller genders but only two target genders.



Figure 1. The gender pattern of French.

1.2 The Relation of Gender to Number

This evidence shows the need to investigate the relation between gender and the related category of number. In French the situation is straightforward, and may be presented as in Fig. 1. A noun which takes masculine in the singular will take masculine agreement in the plural. Systems like this are termed 'parallel': a system is one in which gender in one number determines gender in the other and vice versa.

The next type can be illustrated by the northeastern language Archi (Fig. 2). If one takes the (

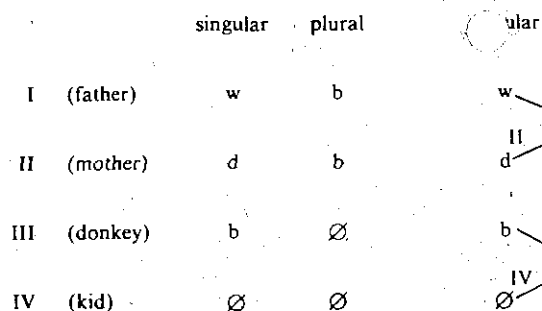


Figure 2. The gender pattern of Archi.

agreement markers (from Kibrik 1972), the pattern in Fig. 2 is revealed. On the left there are the agreement markers. These are given again on the right in a system which recognizes the identities of form. The lines between the agreement markers represent classes of nouns, and are labeled with Roman numerals. Archi illustrates a 'vergent' system, that is, one in which gender in one number determines gender in the other but not vice versa.

The most complex type is the 'crossed' system. A system is one in which gender in neither number determines gender in the other (Fig. 3). It is systems of this type that make it important to distinguish the notions of controller and target gender.

As the Archi data show (Fig. 2), the number of genders distinguished in one number may be different from the other (four in the singular and two in the plural in Archi). Greenberg's universal number 37 states that 'no language ever has more gender categories in one number than in the singular' (1963: 112). This is seen as referring to target genders.

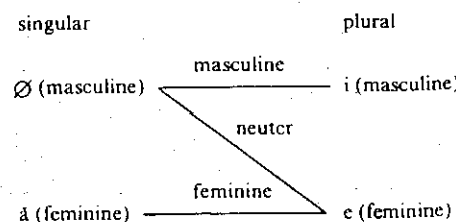


Figure 3. The gender pattern of Romanian.

1.3 Subgenders

An interesting complication to gender systems, and a possible means of expanding the inventory of genders in a given language, is provided by 'subgenders.' The South Slavonic language Serbo-Croat has three genders, masculine, feminine, and neuter, which are very clearly distinguished by the agreement of adjectives, participles, pronouns, and other agreement targets. Within the masculine gender, however, in the accusative case only (the other six cases are not affected), the following distinction is found (3-4):

ovog studenta	(3)
this student	
ovaj zakon	(4)
this law	

The nouns which behave like *student* in (3), when in the accusative case (*studenta*), take the same agreement as they would when in the genitive case. Nouns of this type denote animates. Nouns like *zakon* 'law,' on the other hand, take agreements as though they were in the nominative case; such nouns denote inanimates. It follows that *student* and *akon* are in different agreement classes. But it appears counterintuitive to recognize a new gender here, since their agreements are identical except for the accusative singular. Rather it can be said that the masculine gender is divided into two subgenders, the masculine animate and the masculine inanimate. Subgenders, then, are agreement classes which control minimally different sets of agreements.

2. Gender Assignment

It is evident how genders are established from the linguist's analytic point of view. The other side of the question is the way in which nouns are distributed over the genders of a given language. Clearly the speaker must know the gender of a noun in order to produce examples like (1) and (2) above. It is often stated that there is no principle involved here, that gender is simply remembered for each noun. But there are mechanisms by which nouns are allotted to genders, as suggested by the great regularities found and by the way in which borrowings are given a gender (as indeed are invented words in psycholinguistic experiments). Models of the native speaker's ability are called 'assignment systems.' Assignment may involve two sorts of information about the noun: its meaning and its form.

2.1 Semantic Systems

In some languages meaning alone is sufficient to determine gender. For example, in Tamil (a Dravidian language of southern India and Sri Lanka), nouns denoting gods and male humans are masculine, those denoting goddesses and female humans are feminine, and all others are neuter. And equally, any noun which is masculine will denote a male human or a god. Some other Dravidian languages like Kolami have only two genders: nouns denoting male humans are masculine and all others fall into the nonmasculine gender. This situation may be reversed. In Diyari, a language of South Australia, there are again two genders: one is for nouns with female referents (such as women, girls, doe kangaroos), and the other is for all remaining nouns. And in Dizi, an Omotic language of southwest Ethiopia, there is one gender for nouns denoting females (humans and animals), and for diminutives; all remaining nouns are

in the second (masculine) gender. In Alamlak, a Sepik Hill language of Papua New Guinea, the masculine gender includes nouns denoting males and those denoting things like crocodiles, pythons, and arrows, which are long and thin, while the feminine is for nouns denoting females or short, squat items like turtles, frogs, and chairs.

The semantic criteria by which nouns are assigned to genders may be less straightforward. Thus Dyirbal, a language of North Queensland, Australia, has four genders, primarily for:

- male humans and nonhuman animates;
- female humans;
- nonflesh food;
- others.

There are many apparent exceptions. For example, the moon is in the first, masculine gender and the sun is in the second, feminine gender. The reason is that in Dyirbal mythology, as indeed in much of Australia, the moon is the husband of the sun; in Dyirbal the role in mythology determines gender (see Dixon 1972). Worldview also plays a part in Ojibwa (an Algonquian language of southern Canada and the northern USA). Here, as in other Algonquian languages, there are two genders: animate and inanimate. The first includes nouns denoting persons, animals, spirits, and trees. But it also contains some surprises, such as the nouns for 'sacred story,' 'star,' 'pipe' (for smoking), and so on. It has been suggested that the animate nouns are in fact nouns denoting objects which in the worldview of the Ojibwa are sources or carriers of power.

These then were all languages in which the meaning of the noun determines gender. In some cases the assignment rules are immediately obvious, in others they require an understanding of the cultural setting of the language. Some assignment rules are practically exceptionless; others allow numbers of exceptions, though still accounting for the vast majority of nouns.

It is worth considering the criteria on which semantic systems can be based. Quite often one finds animate-inanimate, human-nonhuman, and male-female. Sometimes there is a gender for diminutives, as in various Bantu languages. There are also less usual genders, such as that for nonflesh food (Dyirbal), and the gender for insects (found in the Rikvani dialect of the northeast Caucasian language Andi). A criterion which defines a gender in one language may be just one factor in the assignment to a gender in another. Thus the Bantu language, Chichewa, has a gender for diminutives, while in Dizi, diminutives together with nouns denoting females form a gender.

2.2 Formal Systems

Although in many languages semantic information about nouns is all that is required for assignment, in many others this is not the case. In such languages information about form is also required. However, while there are purely semantic systems, there are no purely formal systems. That is to say, semantic criteria are used in every gender assignment system; in formal systems, semantic information is insufficient on its own and has to be supplemented by information about form. For example, in Russian, as in many other Indo-European languages, nouns denoting male humans are masculine and those denoting female humans are feminine. Unlike the situation in Tamil, however, it is

not the case that the remaining nouns are all found in the neuter gender; they are shared between the three genders. Searching for additional semantic criteria is not at all promising, as the type of data in Table 1 suggest.

Table 1. Examples of nouns of the three genders in Russian.

<i>zhurnal</i>	magazine	<i>gazeta</i>	newspaper	<i>pis'mo</i>	letter
<i>avtomobil'</i>	car	<i>mashina</i>	car	<i>taksi</i>	taxi
<i>flag</i>	flag	<i>emblema</i>	emblem	<i>znamja</i>	banner
<i>zakon</i>	law	<i>glasnost'</i>	openness	<i>doverie</i>	trust
masculine		feminine		neuter	

There are formal characteristics of such nouns, however, which provide sufficient evidence for assignment. The native speaker of Russian must store information on how nouns decline (for six cases, singular, and plural). There are four major declensional patterns: (a) nouns like *zakon* 'law'; (b) nouns like *gazeta* 'newspaper'; (c) those like '*glasnost*' 'openness,' and (d) those like *pis'mo* 'letter.' Nouns which inflect according to the first paradigm are masculine, those belonging to the second and third paradigms are feminine, those in the fourth are neuter. There is a small subparadigm including nouns like *znamja* 'banner,' which are neuter. Substantial numbers of nouns are indeclinable, like *taksi* 'taxi'; these are neuter, unless they denote animates (*gnu* 'gnu' is animate and so masculine), or are acronyms (*MGU* 'Moscow State University' is masculine since the head word *universitet* 'university' is masculine—because when used independently it declines according to the first paradigm). Thus on the basis of formal information, which the native speaker must store in any case, the gender of a noun can be established by a relatively simple algorithm.

It might be thought that in such a language there is no need for semantic assignment rules. *Brat* 'brother' inflects according to the first paradigm and so would be masculine in any case; equally, *sestra* 'sister' belongs to the second, and so would be feminine. However, there are several examples in which meaning and form conflict. Thus *djadja* 'uncle' declines according to the second pattern (which would lead us to expect it to be feminine), even though it denotes a male person. In such cases the semantic assignment rules take precedence over the formal assignment rules and these nouns are masculine. Many examples of assignment being based on morphological (formal) information as well as semantic can be found in other Indo-European languages, and a similar system is found in Bantu languages.

The second possibility for formal gender assignment is that gender is determined by meaning and, when that fails, by the sound shape or phonology of the noun. This system is found in various languages around the world; a particularly interesting example is Qafar, a Cushitic language of northeast Ethiopia and Djibouti. The semantic rule in Qafar is straightforward: nouns denoting males are masculine; those denoting females are feminine. Thus *bāgqala* 'husband' is masculine while *barrà* 'wife' is feminine. For nouns which do not denote sex-differentiables there is a simple rule. Nouns ending in a vowel which can potentially bear high tone (marked $\overset{\sim}$) are feminine: for example, *karmà* 'autumn.' All others are masculine: *gilāl* 'winter' ends in a consonant and so is masculine, while *baànta* 'trumpet' ends in a vowel but not one which can bear high tone, and so is also masculine. Here too semantic and formal criteria may be in conflict: *abbà* 'father' would be predicted to be femin-

ine according to its form, but semantic assignment takes precedence and it is masculine.

Qafar is a particularly clear example of assignment depending on phonological information; other examples can be found in various parts of the world. Surprisingly, perhaps, French has been shown to have a phonological system, depending on the final phones of the noun, though it is much more complex than that of Qafar. For example, of 938 nouns ending in $\tilde{\epsilon}$, 99 percent are masculine (like *le pain* [pɛ̃] 'the bread'), and of 1,453 nouns in /ʒ/, 94.2 percent are masculine (like *le ménage* [mena:ʒ] 'the household') (for more details see Tucker, et al. 1977).

The different types of assignment criteria may overlap in ways which make it difficult to establish their relative weight in a given language. Thus there may be small clusters of nouns which can be accounted for by semantic criteria (apart from those covered by the main semantic rules) even within systems where formal rules have a major role (as shown for German by Zubin and Köpcke 1986).

Gender assignment is essentially systematic in all languages. The main evidence for this view is the great predictive power of the rules described above, which mirrors the considerable regularities found in the primary linguistic data. Supporting evidence comes from two other sources. Languages frequently borrow new words from other languages. This process serves as a continuously running experiment, which shows that borrowed nouns take their gender according to the proposed assignment rules. For example, in Tamil, the borrowed word *daaktar* 'doctor' is masculine or feminine, depending on the sex of the referent, while *kaarū* 'car' is neuter. It is also possible to construct words which do not actually exist. Their gender is predicted by the assignment rules and so their validity can be tested. Thus Tucker, et al. (1977), found that speakers of French assigned invented words to the gender predicted by the assignment rules with significant consistency.

3. Double Gender, Multiple Gender, and Hybrid Nouns

There are some nouns which appear to belong fully to two or more different genders, that is, they can take all the agreement appropriate for more than one gender. For example, the noun *lo* 'child' in Archi can take gender (I) agreements (as for male persons), when a young boy is denoted, gender (II) (as for female humans) for a girl, and gender (IV) (when singular only, gender (IV) being primarily for inanimates), when the sex of the referent is unknown or unimportant. While *lo* seems to belong to more than one gender (some would call it a noun of 'common gender'); this is a reflection of a difference in meaning (so that the assignment is fully regular according to the normal rules of Archi). It could be said therefore that there are three closely related lexical items. Examples of alternative genders where there is no associated change in meaning are harder to find. When particular nouns do not fall unambiguously under a single assignment rule, perhaps because the relative importance of different assignment rules is changing, or else because they are borrowings which do not conform to some aspect of the native lexis, they may have two (or more) genders. But even here the two are rarely equivalent. One may be stylistically marked as archaic or innovatory.

One class of nouns deserves special attention. These take the agreements of more than one gender, but they do not simply take all the agreements of these genders. The actual agreement they take depends on the particular type of target. Thus the Russian noun *vrač* when used to mean 'female doctor' may take masculine or feminine agreements. Attributive modifiers are more commonly masculine: for example, *naš* (MASC) *vrač* 'our doctor.' Predicate agreement can be masculine or feminine, the latter being the more likely: *vrač prišla* (FEM) 'the doctor came.' Pronouns are more likely still to be feminine. This is in accord with the constraint of the Agreement Hierarchy. The hierarchy consists of four positions: attributive modifier, predicate, relative pronoun, and personal pronoun. It requires that for a given controller, as one moves rightwards along the hierarchy, so the likelihood of semantically justified agreement (feminine in the case of *vrač*) will increase monotonically.

Nouns of this type, which belong to more than one gender, but not fully to both, are termed 'hybrid nouns.' They arise when two assignment rules are in conflict and when this conflict is not, as in the normal case, unambiguous, settled in favor of one of them. In the specific case of *vrač* there is a conflict between semantic assignment (feminine), and morphological assignment (masculine). The semantic assignment rule is not completely dominant in this case because of the interference of the use of *vrač* in its other meanings ('male doctor' or 'doctor of unknown sex'), when it is masculine.

4. Gender Resolution

This term was formulated by Givón (1970) and it refers to a rule which specifies the form of an agreeing element (or target) when the controller consists of conjoined noun phrases. Resolution is generally not obligatory; instead agreement may be with one conjunct only. In such cases, resolution is not involved and examples of this type are not considered here. There are different types of gender resolution: some languages have rules which are basically semantic, others rely on a syntactic principle, while yet others show interesting combinations of the two.

4.1 Semantic Gender Resolution

Gender resolution by the semantic principle involves reference to the meaning of the conjoined elements even if this implies disregard for their syntactic gender. Examples can be found in Bantu languages. These usually have several genders, which correspond to semantic classifications only partially: nouns of the 1/2 gender are human, but not all nouns denoting humans belong to the 1/2 gender (Bantuists use labels such as 1/2 to indicate the agreements taken for singular and plural—a clear way of specifying the agreement class). For gender resolution, the important thing is whether a noun denotes a human or a nonhuman, irrespective of its gender. This point is illustrated in data from Luganda. The resolved form for conjoined noun phrases headed by nouns denoting humans is the class 2 marker—the one used for agreement with plural nouns of the 1/2 gender. In (5) none of the conjuncts belongs to the 1/2 gender, but as all denote humans the resolved form is the class 2 marker:

ek-kazi, aka-ana ne olu-sajja ba-alabwa (5)
5-fat.woman 12-small.child and 11-tall.man 2-were.seen
'the fat woman, the small child and the tall man were seen'

Clearly the use of the class 2 form as the resolved form is motivated by semantic considerations. If none of the conjuncts denotes a human, then the class 8 form is used, as in (6):

en-te, omu-su, eki-be ne ely-ato bi-alabwa (6)
9-cow 3-wild.cat 7-jackal and 5-canoe 8-were.seen
'the cow, the wild cat, the jackal and the canoe were seen'

Conjoining nouns denoting a human and a nonhuman produces an unnatural result; the preferred alternative is the comitative construction. A similar situation obtains in several other Bantu languages, but there may be complications (see, for example, the analysis of Chichewa by Corbett and Mtenje 1987).

4.2 Syntactic Gender Resolution

Gender resolution according to the syntactic principle means that the gender of the nouns involved is what counts, rather than their meaning. In French if conjoined noun phrases are headed by nouns of the same gender then that gender will be used. When the conjuncts are headed by a mix of masculine and feminine nouns, then the masculine form is used (7):

un père et une mère excellent-s (7)
a father.MASC and a mother.FEM excellent-MASC.PL
'an excellent father and mother'

un savoir et une adresse merveilleux (8)
a knowledge.MASC and a skill.FEM marvellous.MASC.PL
'a marvellous knowledge and skill'

Here the rules apply with the same effect to animate (7) and inanimate nouns (8). The rules are evidently of the syntactic type. Languages with resolution rules like those of French are common; they include Spanish, Latvian, Hindi, Panjabi, and modern Hebrew.

4.3 Mixed Semantic and Syntactic Gender Resolution

The semantic and the syntactic principles of gender resolution coexist in Latin. When resolution occurs in Latin, conjuncts of the same syntactic gender take agreeing forms of that gender. This is resolution by straightforward syntactic rules and need not be illustrated. However, when conjuncts are of different genders, then the resolved form to be used depends on whether the nouns denote persons or not. For persons the masculine is used:

quam pridem pater mihi et mater (9)
how long.ago father.MASC me.DAT and mother.FEM
mortui essent
dead-MASC.PL were
'how long ago my father and mother had died'

For other conjoined elements the neuter is used:

murus et porta de caelo tacta erant (10)
wall.MASC and gate.FEM from sky struck-NEUT.PL were
'the wall and the gate have been struck by lightning'

These examples are from Kühner and Stegmann (1955: 44–52). Thus Latin shows both semantic and syntactic principles at work.

5. Diachrony

5.1 Origins

The origin of gender systems has long fascinated linguists. Unfortunately, most investigators were concerned with the Indo-European gender system, whose origins lie so far back

that much work has been largely speculative. Languages whose gender systems are of more recent date allow a clearer view of how gender develops. The ultimate source of gender systems is nouns, and in particular those with classificatory possibilities such as 'woman,' 'man.' Such nouns may develop into classifiers (see *Classifier Languages*), that is, forms which may or must occur with ordinary nouns either in specific constructions, or more generally. It is known that this development occurs, because classifiers exist which are identifiable as nouns. Thus in the Meso-American language Jacalteco (Craig 1986), *ix* is the noun for 'woman' and is also the classifier for female non-kin. 'The woman' is *ix ix*, with the classifier followed by the noun. Jacalteco shows the next stage of development in that *ix* can also be used anaphorically, meaning 'she.' Once there are gender-distinguishing pronouns, gender can spread through the syntax, since anaphoric pronouns are well-attested as a source of agreement systems (as seen clearly in Bantu languages; see *Agreement*). Classifiers can also give rise to gender systems more directly by attaching themselves to various elements within the noun phrase, as has happened in the Daly languages of northwest Australia. For example, in Miriyabin the classifier (originally a noun) occurs with adjectives as well as nouns. *Yeli* is the classifier for sticks, as in the phrase *yeli-meltem yeli-yikin* 'CLASSIFIER + digging-stick CLASSIFIER + my,' that is, 'my digging-stick.' Elsewhere in the Daly family, the form of the prefixed element varies according to the item it attaches to; this is clearly a gender agreement system (see Greenberg 1978).

5.2 Development

Gender systems may expand by adding new genders, using existing morphological material. Various northeast Caucasian languages have gained one or more additional genders using new singular-plural pairings of agreements (part of the system has changed from being like that of French in Fig. 1 to that of Romanian in Fig. 3, Sect. 1.2). The agreement markers were already available but the pairing was new.

Changes in gender systems need not affect the number of genders; instead the composition of the genders may change. At the lowest level the change may affect a single noun. For example, if a language has a gender for nouns denoting humans and another for diminutives then the noun for a child, a small human, may move from one gender to the other (or may stay in between as a hybrid noun) or else a small anomalous group may change gender. But small numbers of nouns may lead to dramatic changes in the gender system. Thus the human gender of Bantu has been invaded by nouns denoting nonhuman animates to different degrees in different languages; in some, like Lunda, the change is complete and the previous human gender is now an animate gender. Such changes affect the different agreement targets in turn, but the result is that the assignment rules change without any great effect on the gender agreement forms.

5.3 Decline

The major cause of the decline of gender systems is attrition, that is, the partial or complete loss of the formal markers on which the system depends. Its effects can be seen clearly

in modern French. The loss of final *-e*, the marker of the feminine gender, has left gender agreement in a confused state in the spoken language, with some targets marking gender by the presence or absence of various final consonants and many targets not marking gender at all. The effect of the same change on nouns has been to make the assignment rules complex, as is evident when French is compared with other Romance languages like Spanish.

In some cases phonological change can lead more directly to a decline in the gender system, when two previous distinct gender agreement markers coalesce. In such case all nouns in the corresponding controller are likely to be affected equally. But a different type of change is possible in which nouns 'transfer their allegiance' by changing from using one target gender form to another. A change of this type with gradual transfer of nouns from one gender to another may lead to the loss of a controller gender. If another controller gender takes the target form involved, then that target form will disappear too.

It is not unusual for a gender to be lost completely. Many members of the Indo-European family have reduced three genders to two. In Romance languages, like French, the masculine and neuter have combined. In various Slavonic languages there is considerable pressure on the neuter gender and in the Sele Fara dialect of Slovene, the neuter has already been lost (since 1945), with most neuter nouns joining the masculine (Priestly 1983: 353-55).

The loss of a gender may well make the assignment system for the remaining genders less clear in terms of semantics. Specifically, the rule assigning nouns denoting males to the masculine gender accounted for a smaller proportion of the masculine nouns in the Sele Fara dialect after the neuters had joined the masculine. This helps resolve a difficult problem. The rise of gender depends on a semantic classification. There is then the question as to why gender systems should be anything but semantic. As has been noted, however, the fusion of genders may blur an ear distinction. This then is a first mechanism which can lead to the weakening of semantic systems; there are several others. A second point is that the semantic criteria cannot be absolutely clear-cut. If the division is human/nonhuman where do gods fit in? And what if gods are represented as animals or inanimates? These are potential targets for change. A third, related mechanism depends on change in the worldview of the speaker. While the assignment of nouns to the given gender may have been fully explicit according to a previous worldview of the speaker, with this change, numerous nouns are left stranded with their gender no longer predictable from their meaning. A fourth mechanism is based on cross-classification. Some languages have size—large/small—as a semantic criterion. Such relative criteria invite problems in any case, but particularly since they can cross-clarify with other criteria. Thus a child could be classified as small or human. Examples available show that even one or two problem nouns of this type can lead to widespread change, but it is difficult to say when they will do so and when instead they will simply remain as isolated hybrid nouns. A final important factor is derivational morphology. If there is a derivational affix with a particular meaning, which is therefore also tied to a particular gender, and this affix extends its meaning, then this may affect the distribution of no

or example, an affix with the meaning 'agent,' whose derivatives were all in the human gender, might extend to other implements and could lead to gender conflict.

It is also possible for all genders to be lost so that a genderless language results. In Indo-European, for example, most Iranian languages, like Persian, have lost gender as have many Indic languages, such as Bengali. In its decline, a gender system may leave its trace in different declensional types (perhaps marking only singular versus plural). Finally, there may only remain relatively small groups of nouns with a phonological similarity, which is the last remnant of a prefix or suffix, which in its day was a clear indicator of gender.

Bibliography

- Corbett G G 1991 *Gender*. Cambridge University Press, Cambridge
- Corbett G G, Mtenje A D 1987 Gender agreement in Chichewa. *Studies in African Linguistics* 18: 1-38
- Craig C G (ed.) 1986 *Noun Classes and Categorization: Proceedings of a Symposium on Categorization and Noun Classification, Eugene, Oregon, October 1983* (Typological Studies in Language 7). Benjamins, Amsterdam
- Craig C G 1986 Jacalteco noun classifiers: A study in language and culture. In: Craig C G (ed.) 1986
- Dixon R M W 1972 *The Dyirbal Language of North Queensland*. Cambridge University Press, Cambridge
- Évičević T 1970 The resolution of gender conflicts in Bantu conjunction: When syntax and semantics clash. *Papers from the Sixth Regional Meeting, Chicago Linguistic Society*
- Greenberg J H 1963 Some universals of grammar with particular reference to the order of meaningful elements. In: Greenberg J H (ed.) *Universals of Language*. MIT Press, Cambridge, MA
- Greenberg J H 1978 How does a language acquire gender markers? In: Greenberg J H, Ferguson C A, Moravcsik E A (eds.) *Universals of Human Language. Vol. III: Word Structure*. Stanford University Press, Stanford, CA
- Librik A E 1972 O formal'nom vydelenii soglasovatel'nykh klassov v archinskome jazyke. *Voprosy jazykoznanija* 1: 124-131
- Löhner R, Stegmann C 1955 *Ausführliche Grammatik der lateinischen Sprache: Satzlehre: Erster Teil*, 3rd edn. Gottschalksche Verlagsbuchhandlung, Leverkusen
- Leahy T M S 1983 On 'drift' in Indo-European gender systems. *Journal of Indo-European Studies* 11: 339-63
- Lieber R, Lambert W E, Rigault A A 1977 *The French Speaker's Dilemma with Grammatical Gender: An Example of Rule-Governed Behavior*. Mouton, The Hague
- Mal'čuk A A 1964 K voprosu o grammatičeskix kategorijax roda i odushevlennosti v sovremennom russkom jazyke. *Voprosy jazykoznanija* 4: 25-40
- Quinn D, Köpcke K-M 1986 Gender and folk taxonomy: The indexical relation between grammatical and lexical categorization. In: Craig C G (ed.) 1986

G. G. Corbett

Gender and Language

As a field of research, language and gender studies is interdisciplinary and relatively new. A wave of intense debate and empirical research was prompted by Robin Lakoff's book *Language and Woman's Place*, published in 1975. This does not, however, suggest that there was no interest in matters relating to it before that date. Academic papers

by linguists, historians, and anthropologists had dealt with some aspects, and written records of various kinds provide evidence that for centuries and in many countries people have had strong beliefs and attitudes about the way women and men speak or should speak, and about acceptable ways of describing males and females. It is commonly assumed that males and females use language differently. What is less often perceived is that there are differences in the ways in which matters relating to the sexes are expressed verbally. Contemporary research seeks to discover the nature of gender-related differences in language and their causes and effects.

As used here, the term 'gender' does not refer to 'grammatical gender' (the system to be found in some languages of organizing certain word classes into contrasting categories of 'masculine,' 'feminine,' 'neuter'). Here gender refers to social categories based on sex but encompassing behavior, roles, and images that, although not biologically determined, are regarded by a society as appropriate to its male or female members. What is seen as appropriate to each gender thus differs in different societies and eras. Gender is distinguished from 'sex' in that sex is taken to refer to biological characteristics of male and female whereas gender encompasses what is socially learned and acquired. Several popularly accepted pronouncements on men, women, and language have been based on the assumption that the different characteristics of male and female language use are a direct result of biological differences between the sexes. Better explanations for almost all observed male/female language differences are to be found less in the biological constitution of the human body and more in the social and psychological formation of the human subject.

A historical perspective on prescriptive and descriptive views of the relationship between language and its male and female users can be gained from an examination of texts written by people with a professional interest in language: lexicographers, grammarians, dialectologists, editors, and, of course, writers of plays and novels. Other sources of information are to be found in a variety of texts produced by people concerned not primarily with language, but with prescribing proper ways of behaving, since one aspect of this is the recognition of the speech community's rules about who may speak and how they may speak in public and private spheres. In most societies these rules indicate differences in what is regarded as appropriate use of language about and by women and men, girls and boys.

In the twentieth century, research in anthropology, sociology, psychology, sociolinguistics, and discourse analysis has provided a wealth of interesting material about how various contemporary societies give verbal expression to their perceptions of boys and girls, men and women, about how they regard the language use of their male and female members, and about the factors that impinge upon these attitudes. Some of this work has concentrated on describing ways in which aspects of linguistic form vary depending on sex of speaker or addressee. Other research has sought to explain causes and effects of observed covariation and also of patterns in the ways women and men are described.

In the late twentieth century, work on language use has been drawn into a broader framework which examines silence and silencing as the other side of the coin of speech and