Before any conclusions can be drawn about the relative complexity of grammatical items, the items should be thoroughly analyzed. For example, learning to use French gender involves much more than learning to recognize formal characteristics which account for gender in nouns; it also requires that semantic gender features be mastered, so that correct forms will be connected with the right meanings. In this study, it is found that six subsets of nouns isolated on the basis of formal properties interact with four semantically classified subsets, yielding 48 "rules" to be learned. Furthermore, correct usage must be combined with adequate reference, which involves still another set of rules, differing not only in number but also in kind from the first two sets. Finally, it should be noted that gender and number, although both appear to involve only dichotomous choices, are not strictly comparable, as number has a diacritical function which gender does not have. (Author/DB)
In their study on "Systematicity/Variability and Stability/Instability in Interlanguage Systems: More Data from Toronto French Immersion", Tarone, Frauenfelder and Selinker explain that they chose to examine the acquisition of gender agreement in the third person pronouns because this is an area where results are "easily quantifiable" and, furthermore, "the binary nature of the grammatical categories of number and gender (singular/plural, and masculine/feminine) further facilitates an analysis since there are only two variants to deal with for each grammatical category. Consequently, the assessment of gender and number can take the form of a strict error analysis, with a form being either correct or incorrect in a given obligatory context. One further advantage of studying gender is the possibility of avoiding semantic ambiguity, since the gender of the referent is clear from the context in this study." To avoid semantic ambiguity, the gender of the referent was made clear by means of pictures. The following remarks concerning the relations between sex and gender are therefore not directed to Tarone et al's article so much as to future research which might have to deal with the problem.

The statistical implications of this rule are obvious. Plural *ils* is far more frequent in speech or writing than plural *elles*, since the latter can occur only when all antecedents are feminine nouns, or when all referents are females. Otherwise the masculine substitution pronoun *ils* is required in the plural. This state of affairs is bound to have an influence on the learner's input. Whether or not he is conscious of the rule, he is likely to be exposed to masculine plural pronouns far more often than to feminine plural pronouns. It also affects his output, since he has more opportunities to use *ils* correctly in the first place, thus reinforcing this pattern, and since he has a better chance of being correct, when in doubt, by using *ils* rather than *elles*. As far as pronunciation is concerned, there is no difference between the singular and the plural forms, except for liaison (the need to link) before a vowel, but this rule is a general one, applying not only to pronouns, but also to articles and nouns. We must therefore conclude that there are not "only two variants to deal with for each grammatical category [number and gender]", but three sets of factors governing the occurrences of gender pronouns in speech and writing. First, there are two logical possibilities within the system (systemic organization): masculine and feminine pronouns. Secondly, there are agreement rules (systematic functioning): (a) singular nouns...
a male, because the feminine noun la critique denotes a thing, not a person. However, in case the actual critique is a female, choice of a substitution pronoun (il, elle or ce) is conditioned by two sets of factors, systematic functioning and norm.

2. Setting aside for a moment the question of systematic functioning, let us look at the problem of norm. Norms may be ideal, as when teachers admonish their students to say "I also" rather than "Me too" — an admonition rarely heeded in everyday language. Statistical norm is established as a result of observation. It can be noted, for instance, that people say "Bye bye" rather than "Goodbye" about 90% of the time. Finally another kind of norm is dictated by individual or group taste. Some speakers feel that "the person to whom I spoke" is stilted, while others would rather not be caught saying "the person I spoke to". This sort of preference can influence the choice of a pronoun when strict grammatical agreement would dictate a form which is felt to be incompatible with good sense, good taste, respect, or politeness. In German, the noun for girl is neutral, das Mädchen, so that in a compound or a complex sentence in which das Mädchen is followed by a substitution pronoun the neutral form es is required. However, a speaker may opt for sie, the feminine form, since it is felt that the pronoun can agree with the referent in the situation and not necessarily with the antecedent in the sentence. Temptation to eschew grammatical rules in favour of taste rules is even
stronger when the substitution pronoun occurs in a separate sentence. Thus a French speaker feels perfectly free to say or write: Le médecin est venu /masc./. Elle m'a dit de rester au lit /fem./. It would be clear that choosing between il and elle is not always an either or question, especially when the referent is a person, that is, the problem of defining obligatory context is complex and ruled by questions of style and formality.

3. Let us now take up the case of systematic functioning. First of all, certain constructions require ce rather than the personal il, elle, as in he/she is an engineer = c'est un ingénieur and he/she is a Canadian = c'est un(e) Canadien(ne). Secondly, the choice between masculine and feminine must take into consideration the question of agreement.

Traditional grammars have set down a number of rules concerning agreement when two or more nouns of different genders are involved. Without going into details, we can state that all of these particular rules can be conflated into the following composition rules:

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What this means is that whenever an element in the sentence must agree with a MASCULINE and a FEMININE NOUN simultaneously, the masculine gender always takes precedence, as illustrated below.

Paul, Louise et Marie sont venus. (∆(M,F,F) + M)
Irène, Hélène et Pierre sont beaux. (∆(F,F,M) + N)
Jean et Marie? Ils ne viennent pas. (∆(N,F) + N)
The statistical implications of this rule are obvious. Plural *ils* is far more frequent in speech or writing than plural *elles*, since the latter can occur only when all antecedents are feminine nouns, or when all referents are females. Otherwise the masculine substitution pronoun *ils* is required in the plural. This state of affairs is bound to have an influence on the learner's input. Whether or not he is conscious of the rule, he is likely to be exposed to masculine plural pronouns far more often than to feminine plural pronouns. It also affects his output, since he has more opportunities to use *ils* correctly in the first place, thus reinforcing this pattern, and since he has a better chance of being correct, when in doubt, by using *ils* rather than *elles*. As far as pronunciation is concerned, there is no difference between the singular and the plural forms, except for liaison (the need to link) before a vowel, but this rule is a general one, applying not only to pronouns, but also to articles and nouns. We must therefore conclude that there are not "only two variants to deal with for each grammatical category [number and gender]", but three sets of factors governing the occurrences of gender pronouns in speech and writing. First, there are two logical possibilities within the system (systemic organization): masculine and feminine pronouns. Secondly, there are agreement rules (systematic functioning): (a) singular nouns
are replaced by pronouns of the same gender, (b) plural nouns are replaced by pronouns according to the composition rule stated above. Thirdly, preference (norm) may dictate the choice of a pronoun consistent with the referent’s sex rather than with the gender of the noun being replaced. For any given text or set of utterances, systematic functioning assigns more possibilities of occurrence to the masculine plural pronoun, resulting in a higher probability of occurrence for ils, while group and personal standards make the use of elles subject to random variations.

4. Grammar, semantics and reference are not synonymous. Grammar is a set of rules which make it possible to decode sentences and to produce sentences which others will be able to decode. As such it may well encompass semantics, but this is not the point here. Semantics can be considered separately for various purposes just as morphology can be examined independently of syntax when the need arises. Semantics deals with the meaning of words and sentences. In French, the noun glace means several things: 1) ice (water made solid by cold), 2) frozen dessert (made of milk, cream or juices), 3) glaze (of meat, fowl, game, and fish), 4) mirror (a surface that reflects light), 5) glass pane in a car window, 6) fault in
a precious stone. Meaning is sometimes analyzed in terms of traits. Some traits, such as ANIMATE, HUMAN, apply to large classes of words where their presence or absence can be noted by means of + and - signs. Thus le critique and le mousse would both be noted as <+ HUMAN>, and la critique. la mousse as <- HUMAN, - ANIMATE>. Other, more specific traits can be deduced by comparing pairs or groups of closely related words. For example, stool, chair and armchair all share the trait <+ FOR SITTING> in contrast to table and desk; they differ among themselves in that stool has the traits <- BACK> and <- ARMS> while chair has <+ BACK> and <+ ARMS> and armchair, <+ BACK> and <+ ARMS>. The meaning of sentences is derived partly from the lexical items and partly from the syntactic patterns they comprise, and can be influenced by intonation patterns. But this need not be gone into here, since we are concerned with gender, which is a noun category. Our problem is to find out whether gender in a noun correlates with a semantic trait in the meaning of that noun, but before doing this, we must attempt to define reference, if only to keep things clear. Reference occurs only in discourse; a noun in the dictionary and a sentence pattern in grammar have no referents. Cicero is a man's name in Latin, it has in its meaning the traits <+ HUMAN> and <+ MALE>, but if I call my pet goldfish Cicero, then that name does not refer to a human
being (and only maybe to a male, since I'm not too sure about Cicero) and I will use it when referring to it by means of a pronoun.

Now, what is meant by "semantic ambiguity"? Is it that a French MASCULINE NOUN can have the trait \( \langle - \text{MALE} \rangle \) (which equals \( \langle + \text{FEMALE} \rangle \)) in its semantic structure, or is it that a noun with the trait \( \langle + \text{MAL} \rangle \) in its meaning can be used to refer to a female person? The latter, if it occurred, would constitute "reference ambiguity", while the former can properly be labelled "semantic ambiguity". Reference ambiguity is possible only in the listener, since the speaker presumably always knows what or whom he is talking about. It is easy to imagine in French, when the plural pronoun ils is used, since an utterance of the type "Ils sont arrivés" conveys the fact that (a) more than one person have arrived, and (b) one of them is male, but indicates nothing as to the sex of the other party or parties. Semantic ambiguity, on the other hand, can exist in the system itself as when a language fails to differentiate between the sexes: a child is either a boy or a girl.

Semantic ambiguity is high in French (see SPILKA in press). To begin with the systemic aspect of gender, let us consider the various classes of nouns which can be defined by purely formal criteria.

First, some nouns exist only in one form and that form is always of the same gender, either masculine or feminine.
We can say these nouns have a **set gender**. Secondly, some nouns can be preceded by masculine and feminine determiners in turn; similarly, they can be replaced by either masculine or feminine pronouns. Such nouns are called *epicene*, they have no set gender.

Thirdly, certain nouns have two forms, one for the masculine and one for the feminine. We may say they have **variable gender**.

In some cases, gender is indicated by a suffix, but a different word root may also be used. From a purely formal point of view, then, we have three sets of nouns and six subsets (one for each gender in each set).

Looking at the semantic components of nouns, we find a large class of nouns which combine a negative sex dimension with a gender dimension. These pertain to inanimates, and gender, in this case, could be considered a purely grammatical, not a semantic, feature, save for the fact that it serves to differentiate meaning in homonyms. *Livre* (MASC) means book, and *livre* (MASC) means pound, in neither case is there any question of maleness or femaleness since these traits, which taken together account for the sex dimension, can only be found in conjunction with the trait (ANIMATE). Turning to the class of animates, we can observe that a positive masculine sign does not entail a (< MALE)trait, just as a feminine, that is (< MASC) trait does not entail a female, or (< MALE) trait. **Un rhinocéros** (MASC) is used to designate a male or a female rhino; the sex dimension is latent in the noun and must be brought out.
by means of a qualifier: un rhinocéros femelle is unambiguous. Such nouns might be labelled **latent sex nouns**, in contrast to **explicit sex nouns**, which contain consistent sex and gender traits. The latter are found mostly in the variable gender class of nouns indicated earlier, *le père, le berger* and *le loup* combine ⟨+ MASC⟩ and ⟨+ MALE⟩ while *la mère, la bergère* and *la louve* have ⟨- MASC⟩ and ⟨- MALE⟩. These nouns are not ambiguous since their gender and sex features are given in the lexicon. A small class of equally unambiguous nouns is encountered among set gender nouns, such as *la nourrice* (the wet nurse) which is feminine and perforce female, and *un castrat* (a castrato) which is both masculine and male. This brings to four the number of subsets of semantically differentiated nouns: 1) no sex dimension, 2) latent sex features, 3) explicit sex with variable gender, and 4) explicit sex with set gender.

6. The class of epicene nouns is considered separately because it functions differently from set gender and variable gender nouns as well as from semantically differentiated ones. An epicine noun acquires gender from its referent. When *enfant* or *secrétaire* refer to male persons, they are used in conjunction with masculine determiners and substitution pronouns: *un enfant, le secrétaire, il* ... When they refer to female persons, feminine determiners and substitution pronouns are employed (subject to constraints imposed by the conflated
agreement rule given in paragraph 3): *une enfant, la secrétaire.* In the plural and in the absence of any other gender indicator, ambiguity is restored: *j'ai trois enfants* (boys or girls?), but as mentioned before it affects only the hearer or reader since the speaker or writer knows whom he is referring to. It should now be clear that reference ambiguity and semantic ambiguity are different. Speakers know this intuitively and make ample use of it. Since sexual discrimination in occupation and employment is beginning to crumble, a number of professions traditionally reserved to men are being entered by women, but professional designations do not necessarily change at the same rate as employment practices. There is no harm in calling a woman painter, *le peintre* (*<+ MASC*>) since this noun expresses only her occupation and not her sexual identity. English has eschewed sex typing in occupational designation for centuries without any adverse effects. *Doctor, lawyer and secretary* give no indication as to the sex of the person involved. Nor for that matter does *chairman,* (Women's Lib notwithstanding) since the suffix *-man* means person with no indication of sex (*BARZUN 1974*). It is only in practice and as a result of tradition that we associate maleness with certain words, because they refer to professional characteristics (not sexual identity) long believed to be found only in males. The French appear to have been more keenly aware of this since a number of occupations traditionally reserved to men have always been
designated by feminine nouns: la sentinelle (the sentry), la recrue (the recruit) and une estafette (a mounted courier), to name only three, have seldom if ever been females in the French army. Conversely, some masculine nouns (not necessarily pertaining to occupation) are applied only to women: un laideron (an ugly girl), un bas-bleu (a pedantic woman). The distinction between semantics and reference has important consequences. It makes it quite easy to apply existing masculine denominations to women. Thus a woman doctor is known as un docteur, unless one wishes to emphasize the fact that the doctor is a female, in which case it is possible to say une femme docteur. A further consequence of the reference/semantic dichotomy is the association of specific semantic traits with the feminine form of a variable gender noun. Thus a man who delivers letters is called un facteur and a woman who performs the same duties is une factrice, but an agent or person who does business for someone else is known as un facteur irrespective of sex. At times, the feminine form indicates a lower hierarchical degree, as in directeur (male or female director, manager or administrator) versus directrice (female principal of an elementary or secondary school). In certain cases the feminine form is downright pejorative, as in doctoresse (poor female doctor) and poètesse (bad female poet). From all this we must conclude that reference cannot
be treated in the manner of a strict logical model for which true/false judgements can be made in spite of the fact that referents, when they are animates, fall into two classes, male and female, because (a) the ascription of names (common or proper nouns) to people is conditioned by history (since any given state of grammar is the result of prior linguistic evolution) and (b) the occurrence of nouns in speech is dependent on the presence of variable factors in the situation, including speakers' preferences. Reference is a matter of probability and as such it is amenable only to statistical calculations.

7. In the preceding paragraph, reference has been considered in connection with lexical semantics, an aspect of what we have called systemic organization in contrast to systematic functioning. This distinction is no doubt an oversimplification, for words seldom occur without a linguistic context or outside a speech situation. Grammatical classifications are convenient sorting devices, but they are a product of circular reasoning: class depends on function and function is determined by class. In reality, we express certain things by means of sentences in which certain strings of sounds function in certain ways. Reference, semantics and grammar are closely connected. This may be nowhere more evident than in the French use of personne. As a noun, la personne is feminine, but applies
equally to men or women. As an indefinite pronoun, personne also applies to men and women, but it is masculine and always negative. Une seule personne est venue (note the feminine determiner, adjective, and past particle) means that only one person came, without specifying sex; personne n'est venue (note the masculine past participle) means that no one came. The affirmative counterpart to the latter is quelqu'un est venu, in which the indefinite pronoun is clearly masculine, regardless of sex. However, when quelqu'un is accompanied by another constituent in which gender is specified, it must take the feminine form: quelques unes des personnes présentes (some of the people who were present), which does not make any implications as to sex, since personne is undetermined in that respect.

It is only when the accompanying constituent carries the dimension + or - MALE that the referents can be identified as males or females: quelques uns des ouvriers, quelques unes des ouvrières. The complexity of gender functioning in French is epitomized in the rules which state that amour, délice and orgue are masculine in the singular but feminine in the plural, and that genre is feminine when preceded by variable form adjectives, but masculine otherwise.

8. Learning to use French gender it not a simple matter. Certainly it involves more than learning to recognize formal characteristics which account for gender in nouns (see TUCKER, LAMBERT and RIGAUT, in press, for a detailed account).
It also requires that semantic gender features be mastered, so that correct forms will be connected with the right meanings. Theoretically at least, the six subsets of nouns isolated on the basis of formal properties identified in this study (quite aside from the large number of further ramifications pointed out by TUCKER et al.) interact with the four subsets included in our semantic classification yielding 48 "rules" to be learned. Finally, correct usage has to be combined with adequate reference which involves still another set of rules, differing not only in number but in kind from the first two sets. Apparently, gender cannot be compared to number although each of these categories would seem, at first glance, to involve only dichotomous choices. In a research on the mechanical translation of articles (Engl. a(n) and the, French un(e), des and le, la, les), number was found to have a diacritical function, but not gender (CHANDIOUX 1973). Comparison of number and gender amongst languages other than French and English would probably yield some interesting information on how these concepts are incorporated into grammar. For the time being, however, the main import of these remarks is the need to recognize that a thorough linguistic analysis is required before any conclusions can be drawn about the relative complexity of items to be learned.
References


