Journal of Psycholinguistic Research, Vol. 22, No. 5, 1993

The Semantics of Grammatical Gender: A Cross-Cultural Study

Toshi Konishi[1]

Although most present-day scholars claim that grammatical gender has no meaning correlates, anecdotal evidence dating back to the Greeks suggests that grammatical gender carries connotative meanings of femininity and masculinity. In the present study native German speakers (tested in Germany) and native Spanish speakers (tested in Mexico) judged 54 high-frequency translation equivalents on semantic differential scales chosen to reflect dimensions of evaluation, potency, and activity. Half the words were of feminine gender in German but of masculine gender in Spanish (Type I words), and half were of masculine gender in German and of feminine gender in Spanish (Type II words). As predicted, German speakers judged Type II words higher in potency than Type I words, whereas Spanish speakers judged Type I words higher in potency than Type II words. The conclusion was that grammatical gender does affect meaning.

A curious dichotomy becomes apparent in reading discussions on gender. On the one hand scholars from various disciplines including linguists, anthropologists, and psychologists, (e.g., Bock, 1982; Fodor, 1959; Hoijer, 1954; Ibrahim, 1973) deny that grammatical gender carries meaning. On the other hand, the anecdotal and historical literature is replete with

The research reported is based on a dissertation submitted in partial fulfillment of the Ph.D. in psychology at UCLA. I am grateful to Ingrid Hudabiunigg for collecting the German data and to Olga Bustos-Romero for collecting the Spanish data. My sincere thanks to my dissertation committee, Donald MacKay, Nancy Henley, Roger Andersen, Raimo Anttila, Patricia Greenfield, and William McCarthy for their advice and assistance. Donald MacKay and Nancy Henley also provided helpful comments on the present manuscript.

[1] Address all correspondence to Toshi Konishi, Department of Psychology, University of California, Los Angeles, California 90024-1563.

0090-6905/93/0900-0519$07.00/0

evidence that gender has meaning correlates (see Clark, 1985; Dixon, 1982; Hoffstätter, 1963; Jespersen, 1924/1965; Malkiel, 1954, 1957, 1958; Mills, 1986; Vygotsky, 1962).

Although opinions vary on whether gender carries meaning, in general, scholars define gender as a property of nouns that requires agreement or concord on the part of other words. For example, the nouns of Greek and Latin were classified into three genders, masculine, feminine, and neuter in order to account for pronominal reference and article and adjective concord (Lyons, 1968).

Accounts in standard grammar texts (e.g., Quirk, Greenbaum, Leech, & Svartvik, 1972) posit two kinds of gender: grammatical gender, which is formal, and natural gender, which is semantic. In languages with grammatical gender, as in many Indo-European languages, all nouns are marked for gender and it is said that the gender assignment to masculine, feminine, or neuter classes cannot be determined on the basis of semantic features of being animate or inanimate, male or female. In contrast, in languages with natural gender, gender is assigned according to semantic features. Nouns referring to male beings are of masculine gender, nouns referring to female beings are of feminine gender, and nouns referring to inanimate referents are of neuter gender.

However, contrary to this traditional framework, no strict division exists between languages said to have grammatical gender and those said to have natural gender. Languages said to have natural gender often exhibit aspects of grammatical gender. For example, in English, a language said to have natural gender, *he* is often used for generic or sex-unspecified referents. The use of *he* and *she* for inanimate objects in the case of personification and *it* for humans in the case of depersonification complicates matters even further (see Erades, 1956; MacKay & Konishi, 1980). Similarly, languages with grammatical gender exhibit certain aspects of natural gender in that, with few exceptions, nouns referring to females are of feminine gender and those referring to males are of masculine gender.

Although *he* and *man* are said to be generics, numerous studies (e.g., Hamilton, 1985; MacKay, 1980; MacKay & Fulkerson, 1979; Martyna, 1978, 1980; for a review, see Henley, 1989) show that these words cause people to think specifically of males. Similarly, since gender is partially correlated with biological sex in languages with grammatical gender, it is an open question whether connotative meanings of femininity and masculinity will generalize to inanimate referents in these languages. Perhaps gender is not a semantically empty category after all.

The present study asks the following question: In languages with grammatical gender, does the gender assigned to a noun carry connotative meanings of femininity and masculinity? The following sections examine the empirical evidence.

Grammatical Gender and Personification

One hypothesis about grammatical gender is that it is a form of personification (MacKay, 1986; MacKay & Konishi, 1980). Support for this view comes from a study of children's literature in English (MacKay & Konishi, 1980) which revealed gender stereotypes. For example, the sun, characterized by stereotypically masculine traits such as power and courage, was pronominalized with *he*, whereas the moon, characterized by stereotypically feminine traits such as passivity and weakness, was pronominalized with *she*. Since this pattern is consistent with grammatical gender in languages such as Latin, French, and Spanish where the sun is of masculine gender and the moon is of feminine gender, grammatical gender may be a form of "personification in disguise" (MacKay, 1986). In fact, different genders for the same object may not be arbitrary but rather reflect the fact that different languages highlight different attributes of an object. Perhaps in contrast to the French and Spanish *sun*, the German *sun* which is of feminine gender is perceived as warm and nurturant, as Hofstätter (1963) suggests (see below).

An early study on personification in grammatical gender carried out in Russia in 1915 (reported by Jakobson, 1966) demonstrated that gender may shape people's attitudes toward things on an unconscious level. Subjects personified the days of the week according to their gender and were unaware of why they personified Monday, Tuesday, and Thursday (masculine gender) as males and Wednesday, Friday, and Saturday (feminine gender) as females.

In a series of studies on grammatical gender in German, Mills (1986) showed that the masculine and feminine genders are associated with male and female referents and the neuter gender with inanimate referents. In one study on metaphors in German, Mills found a correlation between the sex of the referent and the grammatical gender of the metaphorical term. Men were generally described by masculine gender nouns such as *alter Kleiderschrank* (*old cupboard*) and women by feminine gender nouns such as *alta Schachtel* (*old box* or *old bag*). Mills found this connection between grammatical gender and natural gender in naturally occurring children's utterances and in experimental studies as well.

Semantic Differential Studies

A number of studies designed to elicit the semantic content of grammatical gender have used semantic differential methodology, a technique which is designed to measure connotative or affective meaning, as opposed to denotative meaning (Osgood, Suci, & Tannenbaum, 1957/1975). In developing the technique, Osgood *et al.* had subjects rate words on numerous 7-point bipolar adjective scales. Factor analysis revealed three factors of affective meaning: Evaluation (e.g., "good–bad"), Potency (e.g., "weak–strong"), and Activity (e.g., "slow–fast"). These three factors appeared consistently over many different languages (Osgood, May, & Miron, 1975).

Ervin (1962) used semantic differential methodology in a study of nonsense words with Italian speakers. Ervin presented nonsense words with the masculine gender ending -o or the feminine ending -a. Subjects rated *gli uomini* (*men*) and *le donne* (or *le femine*) (*women*) in addition to the nonsense words on four adjective scales. In English they were "pretty–ugly," "good–bad," "weak–strong," and "little–big." Subjects' judgments were related to their ratings of *men* and *women* in that they attributed masculine connotations to words ending in *-o* and feminine connotations to words ending in *-a*.

Konishi (1991, in press) also used nonsense words and semantic differential methodology in a study of gender connotations in German and Spanish. Instead of gender-specific noun endings, gender-specific definite articles were used. German speakers rated nonsense words with the masculine article *der* higher in potency than nonsense words with the feminine article *die*. Spanish speakers, however, perhaps because of differences in the gender systems of the two languages, did not judge nonsense words with the masculine article *el* and the feminine article *la* differently.

Other relevant studies have examined the attribution of gender connotations to actual words (Clarke, Losoff, McCracken, & Still, 1981; Gill & Hogan, 1970; Guiora & Sagi, 1978; Ludwig & Moore, 1968). However, mixed results were obtained with these studies and the studies that did obtain significant results suffered from methodological problems, including demand characteristics. Furthermore all the studies used a single "masculine–feminine" scale. It would be more methodologically sound to use a number of scales that test for connotations of gender indirectly as in the studies discussed below.

Of particular relevance to the present study is Hofstätter's (1963) study with German and Italian speakers. Hofstätter noted that, unlike many other languages, German has a feminine gender *sun* and a mas-

culine gender *moon*. He conjectured that northern Europeans perceive the sun as a "comfortably warm, mother-like womanly sun," whereas southern Europeans perceive the sun as "powerful, but also threatening." Thus he hypothesized that the Italian *il sole* (masculine gender) and *la luna* (feminine gender) would evoke different ideas than the German *Sonne* and *Mond*. To test this idea Hofstätter used a semantic differential test consisting of 24 bipolar adjectives. Correlation measures showed that *Sonne* and *sole* (and *Mond* and *luna*) were judged to be highly similar. However, *Sonne* and *Mond* (and *sole* and *luna*) were not judged to be similar. Hofstätter found the results surprising because neither the grammatical gender nor the geographical differences (northern Germany vs. Palermo, Italy) had an effect.

In a similar study, Mills (1986) used a subset of 15 scales derived from Hofstätter's (1963) study. She tested English and German speakers on six nouns with animate referents, and four with inanimate referents. The results showed that the ratings of each noun correlated with ratings of its translation equivalent. Only one word, *clock*, was expected to show a difference, since it has feminine gender in German but is personified with the pronoun *he* by English speakers. Because the ratings for English *clock* and German *Uhr* correlated positively, Mills concluded that gender does not have an effect.

In a series of studies, Köpcke and Zubin (1984) and Zubin and Köpcke (1981, 1984, 1986) showed that gender in German is not arbitrary, but is partially based on phonetic, morphological, and semantic rules. German has many nouns which can be separated into two or more parts on the basis of form and meaning. In most cases, the final member of the word determines the gender of the word. Zubin and Köpcke (1984) examined a set of compounds ending with *-mut*, a class of exceptions to the principle that words have the gender of their final unit. Using the same semantic differential scales as Mills, Zubin and Köpcke found that feminine gender *-mut* compounds scored high in what they termed *introversion*, "conduct or attitude which place the self under outside control or view it as controllable, or which open the self to outside influence." In contrast, masculine gender *-mut* compounds scored high in what they termed *extroversion*, "conduct or attitude which are directed toward controlling the outside world or view it as controllable, or which protect the self from outside control" (p. 51). These terms are similar to what Bakan (1966) calls *communion* (associated with feminine traits) and *agency* (associated with masculine traits).

The present study was designed to overcome many of the methodological problems of previous studies. First, the study controlled for the

denotation of words by using words which had the same referent but were of opposite gender in the two languages. Because German and Spanish have many words of opposite gender, a large sample of high-frequency stimulus words was possible. Second, the study used language specific semantic differential scales; that is, although some of the adjective scales for German and Spanish had different names, they were functionally equivalent. In addition, in order to avoid judgments based on the overt gender of the word, masculinity and femininity were inferred by the ratings on scales other than the "masculine–feminine" scale. Finally, instead of correlational analysis, differences of means were analyzed by analysis of variance.

The study used 54 high-frequency translation equivalents; half were of feminine gender in German and masculine gender in Spanish (Type I words) and half were of masculine gender in German and feminine gender in Spanish (Type II words). Eight of the 54 words formed natural pairs of opposite gender. Additional words were near synonyms in German and Spanish. The hypotheses were as follows:

1. The potency dimension is expected to show the greatest difference since the majority of studies using semantic differential methodology have shown that judgments on words referring to females and males differ chiefly on this dimension (Heise, 1971; Osgood et al., 1957/1975).
2. An interaction is predicted for German and Spanish Type I and Type II words. Specifically, German speakers will judge Type II words higher in potency than Type I words, whereas Spanish speakers will judge Type I words higher in potency than Type II words.

METHOD

Subjects

The subjects were 40 native German speakers (half females, mean age 25.3, and half males, mean age 23.3), and 40 native Spanish speakers (half females, mean age 20.8, and half males, mean age 22.2). The German-speaking subjects were of various majors from the University of Bielefeld, Germany, and were paid for their participation in accordance with German university custom. The Spanish-speaking subjects were psychology majors from the Universidad Nacional Autónoma de México, Mexico City. All participated voluntarily.

Semantic Differential Scales

The present study used the Short Form Pancultural Semantic Differential Scales which consist of 12 scales which are specific for each language: four for each factor of evaluation, potency, and activity (Osgood et al., 1975). Appendix A shows the German pancultural scales[2] and Appendix B shows the Spanish pancultural scales.[3]

Since the hypothesis was that connotations of masculinity and femininity are transfered from nouns with animate referents to inanimate referents, it was necessary to first determine if subjects had different judgments for *man* and *woman* which are related to sex role stereotypes.

Ratings came from subjects' judgments of *man* and *woman* on 7-point scales. A 2 × 2 (Sex of Subject × Word) mixed analysis of variance with repeated measures on word was done for each dimension of evaluation, potency, and activity.

The dependent measures were the composite factor scores (the means of the four scales for evaluation, the four scales for potency, and the four scales for activity for each subject). The results showed no relevant differences due to sex of the subject. Combined over sex of the subject, subjects judged *man* significantly higher in negative evaluation than *woman* in German, $p < .0001$, and in Spanish $p < .05$. German speakers judged *Mann* (*man*) significantly higher in potency than *Frau* (*woman*) $p < .0001$. Although Spanish speakers' judgments of *hombre* (*man*) and *mujer* (*woman*) were in the predicted direction, the difference fell short of significance, $p < .07$. Ratings for activity were nonsignificant for both German and Spanish speakers.

Materials and Procedure

Materials consisted of two forms (Form A and Form B), each with 32 high-frequency words for each language. Twenty-nine of the words were different for the two forms. Words common to both forms were the German and Spanish translation equivalents of *man, woman,* and *thing*. On each form, 27 of the words were translation equivalents which were of opposite gender in German and Spanish. These translation equivalents came from Bergman's (1968) *The Concise Dictionary of 26 Languages*. The criterion for selection was that the word be of high frequency and of opposite genders in German and Spanish. Bergman's dictionary contains 1000 words. Of these 726 were nouns and 174 or 24% were of

[2] S. Ertel, personal communication, July 1986.

[3] R. Díaz-Guerrero, personal communication, February 1987.

opposite genders in German and Spanish. (German words of neuter gender were not used.) Many of the 174 words were unsuitable because of ambiguity, duplication in similar words, duplication in a given semantic field, etc. Also a number of Spanish words differed from the words in current usage in Mexico. Fifty-four of the more concrete as opposed to abstract words were selected; 27 were of feminine gender in German and masculine gender in Spanish, and 27 were of masculine gender in German and feminine gender in Spanish. Native speakers checked the translation equivalents to see that they were denotatively equivalent and were words used in the language. Table I shows the Type I words, feminine gender in German and masculine gender in Spanish (German *Luft*, Spanish *aire*, etc.). Table II shows the Type II words, masculine gender in

Table I. Translation Equivalents of Type I Words (Feminine German/Masculine Spanish)

English	German	Spanish
Air	Luft	Aire
Apartment	Wohnung	Departmento
Army	Armee	Ejército
Bowl	Schüssel	Traste
Bridge	Brücke	Puente
Brush	Bürste	Cepillo
Cigarette	Zigarette	Cigarro
Clock	Uhr	Reloj
Corner	Ecke	Rincón
Desert	Wüste	Desierto
Fork	Gabel	Tenedor
Garage	Garage	Garaje
Love	Liebe	Amor
Necklace	Halskette	Collar
Newspaper	Zeitung	Periódico
Number	Zahl	Número
Pan	Pfanne	Sartén
Pocket	Tasche	Bolsillo
Record	Schallplatte	Disco
Shoulder	Schulter	Hombro
Stamp	Briefmarke	Timbre
Sun	Sonne	Sol
Tablecloth	Tischdecke	Mantel
Ticket	Fahrkarte	Boleto
Trip	Reise	Viaje
Violin	Violine	Violín
World	Welt	Mundo

Table II. Translation Equivalents of Type II Words (Masculine German/Feminine Spanish)

English	German	Spanish
Apple	Apfel	Manzana
Ball	Ball	Pelota
Beach	Strand	Playa
Beard	Bart	Barba
Broom	Besen	Escoba
Butterfly	Schmetterling	Mariposa
Chair	Stuhl	Silla
Curtain	Vorhang	Cortina
Head	Kopf	Cabeza
Key	Schlüssel	Llave
Letter	Brief	Carta
Moon	Mond	Luna
Mountain	Berg	Montaña
Mouth	Mund	Boca
Pot	Topf	Olla
Rain	Regen	Lluvia
Rock	Stein	Piedra
Rug	Teppich	Alfombra
Skirt	Rock	Falda
Spoon	Löffel	Cuchara
Star	Stern	Estrella
Store	Laden	Tienda
Table	Tisch	Mesa
Tire	Reifen	Llanta
Trash	Abfall	Basura
Thirst	Durst	Sed
War	Krieg	Guerra

German and feminine gender in Spanish (German *Apfel*, Spanish *manzana*, etc.).

Certain words of opposite gender in German and Spanish formed natural pairs: *sun/moon, fork/spoon, brush/broom, pan/pot.* The first word of each pair is of feminine gender in German and masculine gender in Spanish (Type I word) and the second of each pair is of masculine gender in German and feminine gender in Spanish (Type II word). Each subject received one word from each pair.

In addition, Form A had two words which were near synonyms with two words on Form B, but were of opposite gender. In German the words were *Robbe* (fem.) (*seal*) and *Standard* (masc.) (*standard* or *norm*) on Form A, and *Seehund* (masc.) (*seal* or *sea lion*) and *Norm* (fem.) (*norm*) on Form B. Spanish words were *cuarto* (masc.) (*room*) and *nave*

(fem.) (*ship*) on Form A and *habitación* (fem.) (*room*) and *barco* (masc.) (*boat*) on Form B. (The search for synonyms in German and Spanish suggested that few words are true synonyms in a language. The pairs were nearly but not completely synonymous.)

The stimulus words were typed eight to a page with the semantic differential scales below each word. Half the scales were reversed in polarity. German and Spanish sets of materials were constructed by translation and back-translation by native speakers. Any discrepancies were corrected for the final versions.

All instructions were written. Subjects read the following instructions in German or in Spanish:

> "In this study we are interested in how you feel about certain concepts. You will be presented 32 concepts. Underneath each concept is the following group of scales: [The scales and as an example, the instructions for using the "good–bad" scale were presented:] Circle 1 if you feel the concept is extremely good, circle 2 if you feel the concept is very good, circle 3 if you feel the concept is slightly good, circle 4 if you feel that both sides of the scale are equally associated with the concept or if the scale is totally irrelevant, circle 5 if you feel the concept is slightly bad, circle 6 if you feel the concept is very bad, circle 7 if you feel the concept is extremely bad.

RESULTS

Comparison of Type I vs. Type II Words

A 2 × 2 × 2 (Language × Sex of Subject × Type of Word) mixed analysis of variance with repeated measures on type of word (I vs. II) was done for each dimension of evaluation, potency and activity. The analysis of interest was the Language × Type of Word interaction. The dependent measures were the composite factor scores (the means of the four evaluation, four potency, and four activity scores) for each subject for Type I words and for Type II words.

As predicted, the analysis of variance showed a significant Language × Type of Word interaction for potency $F(1, 76) = 8.51$, $p < .01$. German speakers judged Type II words ($M = 4.32$ higher in potency than Type I words ($M = 4.22$), whereas Spanish speakers judged Type I words ($M = 4.21$) higher in potency than Type II words ($M = 4.11$). Figure 1 shows this interaction. The Language × Type of Word inter-

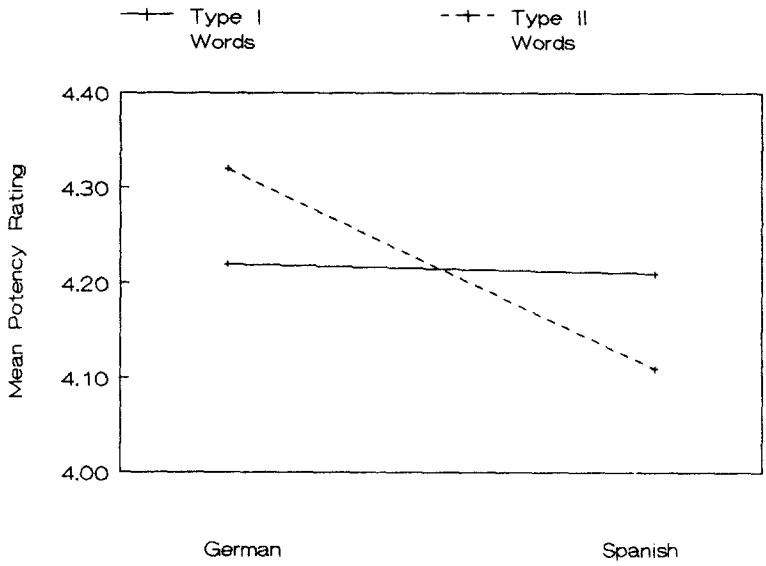

Fig. 1. Mean potency rating of German and Spanish Type I and Type II words. *Note:* Type I words: feminine gender in German and masculine gender in Spanish (e.g., *sun, fork, pan, brush*); Type II words: masculine gender in German and feminine gender in Spanish (e.g., *moon, spoon, pot, broom*).

action for evaluation and activity did not reach significance. Female and male subjects did not differ on any of the dimensions.

The analysis of the simple main effects of the type of word at each level of language showed that the results of German speakers' judgments did not quite reach significance, although the ratings were in the predicted direction, $F(1, 38) = 3.13, p < .10$. Spanish speakers judged Type I words higher in potency than Type II words $F(1, 38) = 6.37, p < .05$.

An alternative analysis compared all German and Spanish feminine gender words vs. all German and Spanish masculine gender words. The analysis was a 2 × 2 × 2 (Language × Sex of Subject × Gender of Word) mixed analysis of variance with repeated measures on gender of word. Masculine gender words ($M = 4.26$) were judged higher in potency than feminine gender words ($M = 4.16$, $F(1, 78) = 8.49, p < .01$).

Comparison of Word Pairs and Near Synonyms

The ratings of the three factors for the word pairs and near synonyms were analyzed by analysis of variance. Only the ratings of the German

near synonym pair *Seehund* and *Robbe* showed a significant difference. *Seehund* (masculine gender) ($M = 4.62$) was judged higher in potency than *Robbe* (feminine gender) ($M = 3.78$), $F(1, 38) = 6.20$, $p < .05$.

Comparison of Individual Words

Standardized scores were used to compare German and Spanish speakers' judgments for individual words. For Type I words (feminine gender in German/masculine gender in Spanish), Spanish *love, stamp,* and *sun* were judged higher in negative evaluation than their German equivalents; Spanish *clock, necklace, stamp,* and *violin* were judged higher in potency than their German equivalents; and Spanish *stamp* was judged higher in activity than its German equivalent.

For Type II words (masculine gender in German/feminine gender in Spanish), German *rain* and *war* were judged higher in negative evaluation than their Spanish equivalents; German *beard, chair, curtain, mountain, pot, rock,* and *war* were judged higher in potency than their Spanish equivalents, and German *ball, skirt,* and *war* were judged higher in activity than their Spanish equivalents.

DISCUSSION

As predicted, in the main analysis of interest, the interaction of German and Spanish Type I and Type II words reached significance on the potency dimension. German speakers judged Type II words (masculine gender in German/feminine in Spanish) higher in potency than Type I words (feminine gender in German/masculine in Spanish), whereas Spanish speakers judged Type I words higher in potency than Type II words. An alternative analysis revealed that, combined over languages, masculine gender words were judged significantly higher in potency than feminine gender words.

Although significant results were obtained with masculine gender vs. feminine gender words collectively, few results reached statistical significance with the secondary analyses: the word pairs, the near synonyms, and the words analyzed individually. However, two specific results that are pertinent to Hoffstätter's (1963) and Mill's (1986) studies (see the introduction) were of interest. Spanish *sol* (masc.) (*sun*) was judged higher in negative evaluation than German *Sonne* (fem.), a result that Hoffstätter had predicted for Italian (in which *sole* is masculine as in Spanish) in comparison with German speakers. In addition, Spanish *reloj* (masc.) (*clock*) was judged higher in potency than German *Uhr*

(fem.), a result predicted by Mills for English (recall that *clock* is pronominalized with *he*) in comparison with German speakers.

The results of the present study confirm previous studies demonstrating that grammatical categories do in fact carry meaning. For example, pronouns are often considered noun substitutes, chosen simply to agree in person, number, and gender with their antecedents. However, a study of the use of human pronouns for nonhuman antecedents in children's literature revealed that underlying attitudes toward the referent as well as its attributes affect the choice of pronoun. Authors were more likely to use *he* or *she* rather than *it* for personified referents, for unique or named characters, and for characters central rather than peripheral to the story. Gender stereotypes played a role in the choice of *he* vs. *she* since antecedents of *he* tended to be strong, active, brave, wise, and clever, whereas antecendents of *she* tended to be weak, passive, and foolish. Pronoun switches, a phenomenon in which different pronouns were used for one and the same referent depending on attitudes toward the referent, were also noted (MacKay & Konishi 1980). An experimental study involving a sentence completion task supported the argument for a semantic basis of pronoun use (MacKay & Konishi, in press a, in press b).

One might ask whether the gender of a word influences the perception of femininity or masculinity of a referent, or whether historically a particular word was assigned a gender because of its attributes, or whether cultural influences have in the past or present had an influence. Although the present study does not separate historical and cultural influences from the possible influence of language on perception and perhaps it is impossible to do so, it did show that in two languages with grammatical gender, German and Spanish, high-frequency words carry connotations of femininity and masculinity.

APPENDIX A: German Pancultural Semantic Differential Scales

Evaluation
- angenehm–unangenehm (pleasant–unpleasant)
- gut–schlecht (good–bad)
- freundlich–unfreundlich (friendly–unfriendly)
- schön–hässlich (beautiful–ugly)

Potency
- klein–gross (small–big)
- leicht–schwer (light–heavy)

zart–kraftvoll (tender–vigorous)
schwach–stark (weak–strong)
Activity
ruhig–bewegt (calm–agitated)
gemessen–lebhaft (sedate–lively)
still–geräuschvoll (quiet–noisy)
langsam–schnell (slow–fast)

APPENDIX B: Spanish Pancultural Semantic Differential Scales

Evaluation
admirable–despreciable (admirable–despicable)
simpático–antipático (friendly–repelling)
agradable–desagradable (agreeable–disagreeable)
bueno–malo (good–bad)
Potency
débil–fuerte (weak–strong)
chico–grande (small–big)
enano–gigante (dwarf–giant)
menor–mayor (minor–major)
Activity
pasivo–activo (passive–active)
lento–rápido (slow–fast)
viejo–joven (old–young)
blando–duro (soft–hard)

REFERENCES

Bakan, D. (1966). *The diversity of human existence.* Chicago: Rand McNally.

Bergman, P. M. (1968). *The concise dictionary of 26 languages.* New York: Bergman Publishers.

Bock, J. K. (1982). Toward a cognitive psychology of syntax: Information processing contributions to sentence formulation. *Psychological Review, 89*(1), 1–47.

Clark, E. V. (1985). The acquisition of Romance, with special reference to French. In D. I. Slobin (Ed.), *The cross-linguistic study of language acquisition: Vol. 1. The data,* (pp. 687–782). Hillsdale, NJ: Erlbaum.

Clarke, M. A., Losoff, A., McCracken, M. D., & Still, J. A. (1981). Gender perception in Arabic and English. *Language Learning, 31*(1), 159–169.

Dixon, R. M. W. (1982). *Where have all the adjectives gone? and other essays in syntax and semantics* (pp. 159–183). Berlin: Mouton.

Erades, P. A. (1956). Contributions to modern English syntax. *Moderna Sprak, 15,* 2–11.

Ervin, S. M. (1962). The connotations of gender. *WORD, 18*(3), 249–261.

Fodor, I. (1959). The origin of grammatical gender. *Lingua, 8,* 1–41, 186–214.

Gill, W. S., & Hogan, C. A. (1970). The effect of language upon gender shaping. *International Journal of Symbology, 2*(1), 9–12.

Guiora, A. Z., & Sagi, A. (1978). A cross-cultural study of symbolic meaning—developmental aspects. *Language Learning, 28*(2), 381–386.

Hamilton, M. C. (1985). Linguistic relativity and sex bias in language: Effects of the masculine "generic" on the imagery of the writer and the perceptual discrimination of the reader. *Dissertation Abstracts International, 46,* 1381B. (University Microfilms No. 8513117).

Heise, D. R. (1971). *Evaluation, potency, and activity scores for 1551 words: A merging of three published lists.* Unpublished manuscript, Department of Sociology, University of North Carolina, Chapel Hill.

Henley, N. M. (1989). Molehill or mountain? What we know and don't know about sex bias in language. In M. Crawford & M. Gentry (Eds.), *Gender and thought: Psychological perspectives* (pp. 57–78). New York: Springer-Verlag.

Hofstätter, P. R. (1963). Über sprachliche Bestimmungsleistungen: Das Problem des grammatikalischen Geschlects von Sonne und Mond. *Zeitschrift für experimentelle und angewandte Psychologie, 10,* 91–108.

Hoijer, H. (1954). The Sapir-Whorf hypothesis. In H. Hoijer (Ed.), *Language in culture: Conference on the inter-relations of language and other aspects of culture* (pp. 92–105). Chicago: The University of Chicago Press.

Ibrahim, M. H. (1973). *Grammatical gender: Its origin and development.* The Hague: Mouton.

Jakobson, R. (1966). On linguistic aspects of translation. In R. A. Brower (Ed.), *On translation* (pp. 232–239). New York: Oxford University Press.

Jespersen, O. (1965). *The philosophy of grammar.* London: George Allen & Unwin. (Originally published 1924)

Konishi, T. (1991). Language and thought: A cross-cultural study on the connotations of gender (Doctoral dissertation, University of California, Los Angeles, 1991). *Dissertation Abstracts International, 52/03B,* 1756.

Konishi, T. (in press). The connotations of gender: A semantic differential study of German and Spanish. *WORD.*

Köpcke, K.-M., & Zubin, D. A. (1984). Sechs Principien für die Genuszuweisung im Deutschen: Ein Beitrag zur natürlichen Klassifikation. *Linguistische Berichte, 93,* 26–51.

Ludwig, D., & Moore, M. (1968). Language and gender shaping. *International Journal of Symbology, 1,* 25–27.

Lyons, J. (1968). *Introduction to theoretical linguistics.* Cambridge, England: Cambridge University Press.

MacKay, D. G. (1980). Language, thought, and social attitudes. In H. Giles, W. P. Robinson, & P. M. Smith (Eds.), *Language: Social psychological perspectives* (pp. 89–96). Oxford, England: Pergamon Press.

MacKay, D. G. (1986). Protypicality among metaphors: On the relative frequency of personification and spatial metaphors in literature written for children versus adults. *Metaphor and Symbolic Activity, 1*(2), 87–107.

MacKay, D. G., & Fulkerson, D. C. (1979). On the comprehension and production of pronouns. *Journal of Verbal Learning and Verbal Behavior, 18,* 661–673.

MacKay, D. G., & Konishi, T. (1980). Personification and the pronoun problem. *Women's Studies International Quarterly, 3,* 149–163.

MacKay, D. G., & Konishi, T. (in press a). The selection of pronouns in spoken language production: An illusion of reference. In F. Burwick & W. Pape (Eds.), *Appearances.*

MacKay, D. G., & Konishi, T. (in press b). Contraconscious internal theory influences lexical choice during sentence completion. *Cognition and Consciousness.*

Malkiel, Y. (1954). Lexical polarization in Romance. *Language, 27*(4), 485–518.

Malkiel, Y. (1957). Diachronic hypercharacterization in Romance. *Archivum Linguisticum, 9*(2), 79–113.

Malkiel, Y. (1958). Diachronic hypercharacterization in Romance. *Archivum Linguisticum, 10*(1), 1–36.

Martyna, W. (1978). What does "he" mean? Use of the generic masculine. *Journal of Communication, 28*(1), 131–138.

Martyna, W. (1980). Beyond the "he/man" approach: The case for nonsexist language. *Signs, 5,* 482–493.

Mills, A. E. (1986). *The acquisition of gender: A study of English and German.* Berlin: Springer-Verlag.

Osgood, C. E., May, W. H., & Miron, M. S. (1975). *Cross-cultural universals of affective meaning.* Urbana: University of Illinois Press.

Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. (1975). *The measurement of meaning.* Urbana: University of Illinois Press. (Originally published 1957)

Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1972). *A grammar of contemporary English.* New York: Seminar Press.

Vygotsky, L. S. (1962). *Thought and language.* (E. Hanfmann & G. Vakar, Trans.). Cambridge, MA: The MIT Press.

Zubin, D. A., & Köpcke, K.-M. (1981). Gender: A less than arbitrary grammatical category. *Chicago Linguistic Society, 17,* 439–449.

Zubin, D. A., & Köpcke, K.-M. (1984). Affect classification in the German gender system. *Lingua, 63,* 41–96.

Zubin, D. A., & Köpcke, K.-M. (1986). Gender and folk taxonomy: The indexical relation between grammatical and lexical categorization. In C. Craig (Ed.), *Noun classes and categorization* (pp. 139–180). Amsterdam/Philadelphia: John Benjamins.