

Connotative Interpretations of Sexuality-Related Terms

Virginia J. Noland,¹ Ellen M. Daley,² Judy C. Drolet,³ Joyce V. Fetro,³
Kelli R. McCormack Brown,² Coleen D. Hassell,² and Robert J. McDermott^{2,4}

In this study we examined the connotative interpretations of selected sexuality-related terms by a cohort of university undergraduate students ($n = 567$). Forty-two sexuality-relevant constructs were rated on thirty 7-point semantic differential scales. Means of the scale sum scores for men and women were compared using t tests. Among women the most favorably rated constructs were *orgasm*, *vaginal sex*, *sexual intercourse*, *virginity*, *masturbation*, *oral sex*, *pro-choice*, *pregnancy*, *erection*, and *heterosexual*. The most negatively evaluated terms were *date rape*, *sexual abuse*, *rape*, *sexual assault*, *HPV*, and *HIV/AIDS*. For men, the most favorably rated constructs were *sexual monogamy*, *virginity*, *orgasm*, *vaginal sex*, and *heterosexual*. The most negatively evaluated terms were *rape*, *HPV*, *date rape*, and *sexual abuse*. There were statistically significant gender differences in the evaluation of 12 terms ($p < .05$). The evaluations assigned to 30 possible attributes suggest that some sexuality-related terms elicit strong visceral responses from university students. A discussion of the psychological and emotional impact of sexuality-related terms (i.e., connotative meanings) may be warranted whenever dictionary definitions (i.e., denotative meanings) are presented to students, other groups of learners, and persons in health care and other settings. Moreover, a practitioner's use of language may elicit connotatively different responses for women and men.

KEY WORDS: gender; semantic differential; sex; sexual language.

The relationship between a word and its possible meanings is known as *semantics* (Megginson, 1996). Depending on context, this relationship may add complexity to interpersonal communication. The very mention of particular words can produce two types of meaning: *denotative*, or referential, and *connotative*, or representational. A person may be able to give the denotative meaning (i.e., dictionary definition) of a word willingly, whereas, at the same time, be reluctant to provide its representational mean-

ing due to the emotional association brought about by the word (Megginson, 1996; Weaver, 1974). Representational interpretations of specific words can be influenced by people's previous experience and sets of beliefs, and, thus, two people may assign entirely different connotative meanings to the same word (Osgood, Suci, & Tannenbaum, 1957). Therefore, under certain circumstances, the communicative value of language may be altered that could create significant communicative roadblocks.

An illustration of this phenomenon can be seen in the inferred meaning of the word *drug*. Apart from any "dictionary meaning," to some people a drug may be seen as a substance that provides therapeutic effects on the body, thereby combating disease, correcting any number of disorders, and assisting in the restoration of health and well-being. To other people, a drug may represent social deviance and arouse thoughts of substance abuse and lawlessness. Of course, still other people may embrace both sets

¹Department of Health Education & Behavior (FLG 5), University of Florida, Gainesville, Florida.

²Florida Prevention Research Center, University of South Florida College of Public Health, Tampa, Florida.

³Department of Health Education and Recreation, Southern Illinois University, Carbondale, Illinois.

⁴To whom correspondence should be addressed at University of South Florida College of Public Health, Florida Prevention Research Center, 13201 Bruce B. Downs, Blvd. (MDC 56), Tampa, Florida 33612; e-mail: rmcdermo@hsc.usf.edu.

of interpretations. The assigned meaning to the word “drug” is, therefore, not a constant, but rather, one that is influenced by context.

Sexually explicit words can provoke certain specific reactions in people (Hama, Mine, & Matsuyama, 1979; Mumpower, 1973; Plaud, Gaither, Franklin, Weller, & Barth, 1998; Stewart, 1999). When communication involves the use of sexuality-related words, semantics may play a particularly important role. A vast pool of sexuality-related terms is used by sexuality educators, health care workers, and other professionals to convey information about sexual health and functioning, the dynamics of interpersonal relationships, sexual behaviors and lifestyles, and the consequences of particular sexual practices. Interpretations of sexuality-related constructs may inhibit some individuals’ openness to sexuality education. Inhibitions about sexual language also may limit a person’s ability to provide a reliable medical and sexual history, to feel comfortable during a physical exam, to describe symptoms related to sexual organs or sexual functioning, or to offer an accurate account to law enforcement officials after an incident of sexual assault or abuse. Confusion about the intended meaning and interpretation of sexual terminology may occur in conversation between physicians and their patients, and thereby lead to misunderstandings about symptoms as well as the confounding of an eventual diagnosis (Barratt & Risser, 1998). Moreover, one cannot assume that a health professional or law enforcement official has an appreciably greater comfort level with sexual language than the person she or he is trying to serve. Practitioners are, after all, also products of complex belief and value systems, as well as their own cumulative experience. As Galanti (1991) pointed out, “Patients may be too embarrassed to discuss certain problems, particularly those of a sexual nature. A health care provider needs excellent communication skills to be able to handle sensitive issues” (p. 33). The patient’s reluctance is undoubtedly increased if the health professional’s communicative competence also is tentative.

Thus, the specific terms selected by health professionals, because of their connotative translations by intended audiences (e.g., patients, students), may not always produce the intended communicative results. Previous work on the connotative meaning of language supports the belief that independent ratings (evaluative indices) can be applied to words symbolic of varieties of birth control (McDermott & Gold, 1986–87; Sarvela, Huettelman, McDermott,

Holcomb, & Odulana, 1992), as well as to sexuality-related terms in general (McDermott, Drolet, & Fetro, 1989; McDermott & Gold, 1986; Westhoff et al., 1999).

The problem of intended meaning and actual interpretation becomes exacerbated when words are used as “power tools” that act as a semantic wedge between the genders. For example, Roffman (1991) referred us to certain baseball vernacular that is sometimes converted to sexual metaphors. Baseball aficionados understand the denotative meanings of the terms *first base*, *striking out*, and *home run*. When used as sexual vernacular, however, the connotative meanings illustrate a much different set of events. At one extreme, a person (usually a man) may speak of “only getting to first base” or “striking out” with a date. At the other extreme, “scoring” or “hitting a home run” is likened to a successful sexual intercourse.

Baudhim (1973) discussed the offensiveness of certain words, especially selected sexual words. Robinson, Balkwell, and Ward (1980) reported that men and women assign different meaning to the word *intercourse*. For instance, among sexually experienced women, the word *love* becomes associated with intercourse. For sexually inexperienced women, however, a word more likely to be associated with intercourse is *marriage*. Literacy as well as comfort level may play a role in the interpretation of the meaning of some sexual words. On the basis of data from the *National AIDS Behavioral Survey II*, Binson and Catania (1998) concluded that male respondents and persons from some ethnic groups were more likely to experience difficulty in understanding the meaning of terms such as *vaginal intercourse* or *anal intercourse* than were other respondents.

Kutner and Brogan (1974) showed that men had a larger slang vocabulary than women to describe sexual intercourse, a finding also demonstrated by Walsh and Leonard (1974). In mainstream U.S. culture, men are presumed to possess a more diverse sexual vocabulary than women do, including more slang to represent and describe sexual intercourse and other sexual activity (Kutner & Brogan, 1974; McDermott, 1994; Sanders & Robinson, 1979; Walsh & Leonard, 1974), although other investigators have refuted this assertion (Kramer, Thorne, & Henley, 1978; Rubenstein, Watson, Drolette, & Rubenstein, 1976). Some researchers have concluded that women are less comfortable than men in addressing questions about their sexuality and rating “sexual words” (Geer & Bellard, 1996; Geer & Melton, 1997; Plaud,

Gaither, & Weller, 1998). Data from Jackson and Cram (2003) further suggest that a double standard exists among 16- to 18-year-olds with respect to their talk about sexuality. Additional research reveals other differences in the way men and women process sexual information (Geer, 1996).

Purpose of the Study

Research about sexual language often has been limited to analyses of words used to represent male and female genitalia, the act of sexual intercourse, or the creation, use, or impact of other slang expressions (McDermott, 1994; Sanders & Robinson, 1979; Simkins & Rinck, 1982). Although some researchers have investigated the connotative meanings assigned to sexual vocabulary by U.S. university students, their studies were conducted prior to the 1990s (McDermott et al., 1989; McDermott & Gold, 1986). The extent to which the evolution of sexual language has changed and impacted the university student culture in the intervening years is unknown. A few studies that involved the evaluation of sexual terms have been conducted in the past decade, but most have included relatively small numbers of participants (e.g., Barratt & Risser, 1998; Geer, 1996; Geer & Melton, 1997; Plaud, Gaither, Franklin, et al., 1998), or have been carried out in other countries and languages (e.g., Westhoff et al., 1999), and therefore, offer results that may not be generalizable to U.S. populations. The present study had multiple purposes: first, to examine the attributes assigned by undergraduate students at a large midwestern university to terms that represent sexuality-related constructs; second, to compare and contrast how meanings assigned to sexuality-related constructs may differ for men and women; and third, to compare and contrast the evolution of sexual language over time.

METHOD

Participants

The study employed a cross-sectional design where participants were 567 undergraduate students enrolled in sections of "Healthful Living," a course taken primarily by freshmen and sophomores to meet one of the general studies requirements at a large midwestern university. Because a large percentage of the undergraduates fulfill a requirement through taking this course, representativeness

was adequate with respect to gender and ethnicity, though not unexpectedly, juniors and seniors were underrepresented. Men were 50.3% of the respondent pool, and women were 49.7%. Participants had a mean age of 19.39 years (range 16–45 years). In all, 80.2% of the students reported themselves to be White, 12.8% Black, 2.0% Hispanic, 1.8% Asian, 0.4% Native American, and 2.9% of "mixed" ethnic background. With respect to religion, 43.9% said they were Protestants, 28.1% were Roman Catholics, 1.8% were Jewish, 9.1% reported themselves to be of other religious denominations, and 17.1% said they followed no religious doctrine or tradition. Concerning religiosity, 49.6% reported themselves to be religious, 11.5% nonreligious, and 38.9% neither religious nor nonreligious. Neither gender nor ethnicity was related to reported religiosity. In all, 98.7% of the respondents identified themselves as heterosexual, 1.1% as bisexual, and 0.2% as homosexual. Respondents were predominantly never married (97.1%), but 2.5% were presently married, and 0.4% were divorced. Virtually all students (97.7%) were U.S. citizens, and 97.3% said that English was their primary spoken language.

Measures

Semantic differential (i.e., bipolar adjective) scales measure the connotative meaning of a construct to an individual (Osgood et al., 1957). A person is asked to rate a given term on a series of 7-point bipolar rating scales. Theoretically, any concept, whether a person, a place, or a thing, can be rated. These scales, or the subcomponents that comprise them, can be summed to yield overall evaluative scores or indices. These scores subsequently are interpreted to represent the person's position on dimensions of attitude (identified through factor-analytic methods) toward whatever was rated (Gold, Regin, McDermott, & Drolet, 1985; Heise, 1970; Kidder, 1981; McDermott & Sarvela, 1999; Osgood et al., 1957). Bipolar adjective scales are relatively simple and economical approaches to the study of attitudes and to obtain data concerning people's reactions to terms. These scales can be used with children and adults alike (Heise, 1970), and they hold their validity in various languages and cultures (Heise, 1970; Osgood, 1964, 1965; Westhoff et al., 1999).

The instrument used in this study was modeled after the *Connotative Meanings of Sexuality Related Terms* survey (McDermott et al., 1989). It

differed from the original instrument in two ways. First, sexuality-related words on the current instrument were nondifferentiated as opposed to being categorized as *events*, *objects/people*, or *abstract terms*. Second, whereas the original instrument had 15 unique but overlapping semantic differential scales for each of the three sets of sexuality-related words, the modified instrument applied the same 30 adjective pairs to each of 42 sexuality-related terms. These 30 sets of adjective pairs encompassed all of the pairs used in the originally designed instrument. The bipolar adjectives were arranged at opposite ends of 7-point scales. Whereas some investigators (e.g., Heise, 1970, Osgood et al., 1957) distribute the scale from -3 to $+3$ with a 0 midpoint, we used "1" to represent the *most favorable rating*, "7" the *least favorable assessment*, and "4" as the scale midpoint, to facilitate comparison to results reported by other investigations (e.g., McDermott et al., 1989; McDermott & Gold, 1986, 1986–87; Sarvela et al., 1992; Westhoff et al., 1999). The adjective pairs are shown in Table I.

Table I. Bipolar Adjectives Used to Assess Connotative Meanings of Sexuality-Related Terms

Good–bad
Sociable–unsociable
Potent–impotent
Valuable–worthless
Kind–cruel
Pleasurable–painful
Successful–unsuccessful
Healthy–sick
Useful–useless
Honest–dishonest
Right–wrong
Innocent–guilty
Hopeful–hopeless
Virtuous–sinful
Careful–careless
Positive–negative
Strong–weak
Merciful–merciless
Courteous–discourteous
Visible–invisible
Sensitive–insensitive
Perfect–imperfect
Friendly–unfriendly
Fortunate–unfortunate
Beautiful–ugly
New–old
Open–closed
Consistent–inconsistent
Regular–irregular
Reliable–unreliable

The original *Connotative Meanings of Sexuality Related Terms* survey consisted of 50 items that had been derived through a content validation process that involved two consensus panels (academic setting sexuality educators and undergraduate students). The modified version was created using a similar protocol in the spring of 2000; some terms from the original version were eliminated, and other terms (especially some new to the sexual lexicon since the 1980s) were added. The final instrument consisted of 42 elements.

The instrument underwent two rounds of pilot testing to verify the clarity of written instructions, to illuminate concerns about any of the sexual words, and to assess test–retest reliability for a sample of terms. Scale stability varied across sexual terms, but was concluded to be acceptably high; Pearson test–retest correlations for the adjective pairs ranged from a low of $r = .49$ to a high of $r = .94$. Internal consistency for the sample of respondents in the main study was assessed using Cronbach's alpha ($\alpha = .93$).

Procedure

The researchers briefed teaching assistants about the protocol for the study. The teaching assistants distributed the surveys in classroom settings during the fall of 2000. Group sizes ranged from 20 to 30 persons per class. Students were given written and verbal instruction "to rate each sexuality-related construct according to their initial impressions" and were encouraged "not to spend too long on any one item." Students were advised that participation was voluntary, data were to be aggregated, and that there would be no attempt to identify individual respondents. Up to 75 min were allotted for completion of the surveys. The research plan was reviewed and approved by the institutional review boards of the sponsoring institutions.

RESULTS

Frequencies and means were calculated for all variables. For each sexuality-related term, values for the 30 semantic differential subscales were summed and overall means were calculated as illustrated in previously published works (Herold & Goodwin, 1980; Kee & Darroch, 1981; McDermott et al., 1989; McDermott & Gold, 1986, 1986–87; Sarvela et al., 1992; Westhoff et al., 1999).

Comparisons between the summed scores assigned to sexuality-related terms by men and women were made through a series of two-tailed *t* tests with the alpha level set at .05. To indicate the extent to which sexuality-related words were evaluated along certain dimensions, a principal components analysis with a varimax rotation was applied across all of the 42 terms. Separate analyses were conducted for males and females. Eigenvalues equal to or greater than 1.0 were used to assess the relative importance

of the evaluative dimensions extracted. An adjective pair was identified with a particular factor if its loading for that evaluative dimension was .50 or greater (McDermott & Gold, 1986–87).

Evaluation of Sexuality-Related Terms

Evaluative means for male and female respondents are reported in Table II. Among women the most favorably rated constructs were *orgasm*,

Table II. Means and Standard Deviations of Sexuality Terms Semantically Rated by Male and Female Students (*p* < .05)

	Men's index		Women's index		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Abortion	4.15	1.01	3.79	0.68	-0.26	.793
Anal sex	3.22	0.86	3.47	0.92	0.66	.510
Bisexual	3.55	0.73	3.38	0.79	-1.05	.296
Breast enlargement	3.63	0.72	2.82	0.73	2.92	.005*
Chlamydia	3.11	0.61	4.31	0.70	-0.95	.344
Date rape	5.16	0.43	5.33	0.59	-0.15	.878
Divorce	3.93	0.85	3.64	0.76	-0.05	.963
Erectile dysfunction	2.78	0.33	3.87	0.58	-1.43	.157
Erection	3.21	0.66	2.16	0.62	2.49	.015*
Extramarital sex	4.04	0.93	4.15	1.08	-0.02	.986
Feminist	2.28	0.75	3.23	0.88	-3.70	.000*
Gay	3.79	1.49	3.83	1.07	-3.12	.003*
Gonorrhea	4.49	0.57	3.80	0.51	2.18	.032*
Hepatitis	4.28	0.64	3.61	0.74	1.70	.093
Herpes	3.09	0.57	4.24	0.63	-0.76	.447
Heterosexual	2.03	0.64	2.17	0.94	2.49	.015*
HIV/AIDS	3.16	0.43	4.49	0.76	-1.92	.059
Homosexual	3.22	0.88	3.62	1.15	-1.70	.094
HPV	5.68	0.75	4.66	0.77	-1.20	.235
Internet sex	3.32	0.64	2.26	0.55	4.12	.000*
Lesbian	3.34	0.68	3.18	1.07	1.17	.247
Masturbation	2.66	0.73	2.00	0.60	1.67	.097
Menopause	3.07	0.94	2.95	0.62	0.63	.533
Multiple sex partners	3.26	0.67	3.48	0.73	1.14	.257
Oral sex	2.53	0.92	2.06	0.71	2.48	.015*
Orgasm	1.79	0.50	1.44	0.45	0.91	.366
Pornography	3.78	0.94	3.26	1.09	2.64	.010*
Pregnancy	2.33	0.67	2.14	0.78	1.17	.246
Premarital sex	2.34	0.76	2.63	0.77	-0.04	.972
Pro-choice	2.82	0.87	2.09	0.65	1.52	.132
Pro-life	2.46	0.98	2.43	1.18	0.12	.905
Rape	6.57	0.58	5.14	0.53	0.16	.873
Sexual abuse	5.06	0.35	5.18	0.55	0.23	.817
Sexual assault	3.83	0.70	4.72	0.35	-3.17	.002*
Sexual intercourse	2.77	0.81	1.89	0.62	1.83	.073
Sexual monogamy	1.59	0.63	2.59	1.21	-1.78	.078
Syphilis	3.59	0.50	2.79	0.41	2.34	.021*
Transgender	4.25	0.95	3.94	0.75	-3.25	.002*
Vaginal sex	1.88	0.55	1.47	0.49	1.09	.280
Vasectomy	2.95	0.51	3.16	0.77	-1.36	.177
Viagra	2.65	0.57	2.67	1.12	0.28	.779
Virginity	1.66	0.71	1.99	0.71	-0.81	.423

vaginal sex, sexual intercourse, virginity, masturbation, oral sex, pro-choice, pregnancy, erection, and heterosexual. The most negatively evaluated terms were *date rape, sexual abuse, rape, sexual assault, HPV, and HIV/AIDS.* For men, the most favorably rated constructs were *sexual monogamy, virginity, orgasm, vaginal sex, and heterosexual.* The most negatively evaluated terms were *rape, HPV, date rape, and sexual abuse.* Men and women each rated nine terms below the midpoint (i.e., 4.00) of the semantic differential scale, thus giving them an overall negative connotation. Six of the terms were common to both groups. Of the 42 terms assessed, men rated four terms significantly more favorably than did women: *feminist, gay, heterosexual, and sexual assault.* Women rated eight terms significantly more favorably than did men: *breast enlargement, erection, gonorrhoea, Internet sex, oral sex, pornography, syphilis, and transgender.*

Principal Components Analysis

The principal components analyses revealed nearly identical and unitary factor structures for men and women. For women, the factor accounted for 59.4% of the variance, and could be interpreted as “evaluative,” as in the classic discussion of factors presented by Osgood et al. (1957). In all, 27 of the 30 word pairs met the criterion factor loading (.50) for inclusion, thus obscuring a more specific interpretation of the factor. Among men, the interpretable dimension accounted for 63.6% of the common variance. It encompassed 29 of the 30 word pairs and also could be labeled as “evaluative.”

DISCUSSION

In this study, 12 of the 42 constructs assessed showed significant gender differences in the attributes assigned to them. Although we could have introduced a Bonferroni correction procedure to see whether some of the statistically significant gender differences were eliminated when a more stringent probability level (e.g., $p < .001$) was applied, we permitted the observed results to speak for themselves. Only the terms *feminist* and *Internet sex* would have remained statistically significant under this stricter Bonferroni criterion. Interpreting results using a Bonferroni correction may be important in some circumstances (e.g., when making a Type I error has serious consequences). However, some statistical experts caution its use because potentially important

differences can be missed (i.e., the occurrence of a Type II error is increased). Rothman (1990) has argued against the use of corrections when multiple corrections are made: “A policy of not making adjustments for multiple comparisons is preferable because it will lead to fewer errors of interpretation when the data under evaluation are not random numbers but actual observations on nature. Furthermore, scientists should not be so reluctant to explore leads that may turn out to be wrong that they penalize themselves by missing possibly important findings” (p. 43). Furthermore, as Perneger (1998) has pointed out: “. . . type II errors are no less false than type I errors (p. 1237).

It is interesting that when we compared the most positive and the most negative evaluations given to the constructs, there was more agreement than disagreement across gender. The similarities found in this study might be attributable to the homogeneity of persons who attend this particular university or take this particular course with respect to relevant dimensions of sexuality-related attitudes. McDermott et al. (1989) used a similar survey at the same university and found gender differences for 9 of 25 sexuality-related events, 5 of 14 sexuality-related objects/people, and 2 of 11 sexuality-related abstract terms. That study comes closest in purpose, content, and method to the current investigation, and is cited below in several instances to examine possible trends and changes in the interval between the generation of the two data sets.

Among men, *rape* was the term that elicited the most negative semantic response ($M = 6.57$). Although the term also was given a strongly negative rating by women ($M = 5.14$), *date rape* was, in fact, the term that elicited the most negative connotation for female respondents ($M = 5.33$). Perhaps *date rape* is differentiated from *rape* among women; the former term may be more concrete, higher in consciousness, or perhaps, even an event with which the respondents possess direct (or indirect) experience. Women who are not dating may not feel vulnerable to *date rape*. Also, men may rate *rape* more negatively because the act, which more often victimizes women, but is perpetrated by men, may cause them to feel “guilty by association.” Clearly, men also place *date rape* in a negative context ($M = 5.16$). However, men may assign less negativity to it than they do to *rape*, possibly because the latter may be deemed criminal behavior regardless of context, as well as an act of violence. On the other hand, *date rape* may be misunderstood by men as more of an

act of passion than one of violence, and, therefore, contextually more acceptable in their purview (not to mention an act that is less likely to be prosecuted). Men also may feel better able to control the situations in which *date rape* occurs, thereby feeling less vulnerable to charges of *date rape*. Ironically, an analog that many people might see as synonymous with these terms, sexual assault, actually received a slightly positive rating from male respondents ($M = 3.83$), though a strongly negative and statistically significantly different assessment by female respondents ($M = 4.72$). Although the reasons for this difference are unclear, the apparent rating disparity by men and women is further evidence of the impact that choice of terms may have. McDermott et al. (1989) also studied the semantic interpretations of the term *rape* by male and female university students. In their study, *rape* received comparable evaluative indices by men ($M = 3.71$) and women ($M = 3.76$), with both ratings notably on the positive side of the scale's midpoint. What these comparisons collectively demonstrate is that the connotative meaning of *rape* has moved strongly in a negative direction over a 15-year period for both men and women. However, data from the current study suggest that a connotative distance remains between men and women with respect to this term, and perhaps even more with regard to some of its closely associated analogs. Moreover, the subtle differences in representational meaning assigned to *rape* and *date rape* may require special sensitivity on the part of health professionals in times of emergency care or even routine health care or sexual history taking. Perhaps in-depth discussions during college educational sessions regarding *rape* and *date rape* are warranted, so that men and women better understand how the terms are used and interpreted by their cross gender peers. It also is possible that the gender of the practitioner may impact interpretation of the dialogue with the patient. Health professional education may not be able to undue years of inculcation about the representational meaning of sexual terms. However, educators may be able to alert students, instructors, and practitioners to whatever predisposing attitudes and beliefs they have with respect to these constructs.

Another set of comparisons that can be made applies to the seven sexually transmitted infection (STI) constructs included in the pool of words examined. Women and men rated two significantly differently (*gonorrhea* and *syphilis*), but not the other five (*HPV*, *hepatitis*, *herpes*, *chlamydia*, and *HIV/AIDS*). Women rated both *syphilis* and *gonorrhea* less neg-

atively than did men. In fact, both of these terms have mean ratings among women that are on the positive side of the scale midpoint. Perhaps women do not view themselves as being especially at risk for these more "classic" sexually transmissible infections (or see themselves as being more in control of their risk), and therefore, do not rate them as threats. Of the five remaining STIs rated, women assigned negative connotative meanings to four of them (*chlamydia*, *herpes*, *HPV*, and *HIV/AIDS*). Each of these infections has increasing importance from a public health perspective, and two of them (*chlamydia* and *HPV*) may be of special interest for women due to their prevalence and potential long-term consequences. It is interesting that women rated *gonorrhea* differently than *chlamydia* because individuals often are infected with both diseases simultaneously. In fact, when one of the infections is present, health care providers routinely test for the other. The fact that the mean rating for *HIV/AIDS* among men ($M = 3.16$) was slightly "favorable" may signal a sense of low susceptibility, possibly because of underestimation of their true risk or the mistaken belief that *HIV/AIDS* is principally a problem for persons with a homosexual or bisexual orientation. These beliefs of low susceptibility also may be a factor of age because the majority of respondents in this sample have never known life without *HIV/AIDS*. In addition, they have witnessed improvements in treatment that have allowed high profile people (e.g., Magic Johnson) to live and function despite being infected with HIV. This finding also may reflect an issue associated with the study's sampling because just 0.2% of respondents reported themselves to be homosexual and only 1.2% indicated themselves to be bisexual. It is possible that the relatively high unfavorable ratings assigned to terms such as *HPV* and *hepatitis* (as compared to *HIV/AIDS*) by men may be an artifact of term recognition due to recent media bombardment of the growing prominence of these "late comers" to the STI repertoire of diseases.

McDermott et al. (1989) found that men's assigned rating of *orgasm* ($M = 3.43$) was significantly more favorable than the rating given by women ($M = 4.75$). Moreover, that study revealed that women's rating of the construct was actually on the negative side of the scale midpoint. In the present study, attitudes about *orgasm* were favorable among both men ($M = 1.79$) and women ($M = 1.44$), and were not statistically different. The evaluative index for *orgasm* made it, in fact, the most favorably rated term among female respondents. If this apparent change

accurately reflects the current sexual culture, there has been an enormous qualitative shift by both genders, but especially by women in the past 15 years.

It is interesting that both the terms *gay* and *heterosexual* had evaluative indices from men in this sample that were significantly more favorable than those assigned by women. For men and women alike, the indices were on the positive side of the scale's midpoint. Although the mean rating for *heterosexual* among men was strongly favorable ($M = 2.03$), the nearly neutral rating for *gay* ($M = 3.79$) and slightly favorable rating for *homosexual* ($M = 3.22$) among men may demonstrate a departure from their intolerance of earlier decades. In previous work by McDermott et al. (1989), the term *gay* had strongly unfavorable connotations assigned by both genders, and statistically significant gender differences were found for ratings assigned to *homosexual* (less favorable among men) and *heterosexual* (more favorable among men). Men (3.34) and women (3.18) rated *lesbian* similarly in magnitude, and overall, slightly favorably.

A somewhat surprising finding in the current study was the significantly more favorable assessment of *feminist* by men ($M = 2.28$) than by women ($M = 3.23$). Perhaps both men and women consider "feminists" to be more liberal sexually, which if true, could account for the more positive rating by men and the less favorable rating by women. Although both sexes produced indices on the positive side of neutrality, the more favorable rating by men also may signal some dissonance among women about the impact or status of the feminist movement. Whereas both the men and women in this study appear to embrace the social movement of feminism, women may be more sensitized to the impact of persons who have stereotyped feminists as "extremists," and therefore, are more cautious in their evaluation. The term "feminism" has many different uses and its meanings are often contested (Haslanger & Tuana, 2004). To some people, the feminist movement refers to a specific set of political actions, historically more prominent in the United States and Europe than elsewhere; to others, a feminist may be anyone who believes that injustices against women exist and ardently supports their elimination (Haslanger & Tuana, 2004). The interpretation of *feminist* may be a function of gender role identity (Toller, Suter, & Trautman, 2004). For instance, previous research has demonstrated that feminists often are viewed as being unfeminine (Alexander & Ryan, 1997) and as having certain masculine traits (Rubin, 1994), perspectives that are in-

consistent with many women's gender role identities (Toller et al., 2004). Whatever the explanation, future researchers might focus more specifically on what the term *feminist* represents to both genders.

Women's evaluative index for *erection* was significantly more favorable than it was among men ($M = 2.16$ vs. $M = 3.21$). McDermott et al. (1989) also found this situation, in which case *erection* was actually assessed as a negative event by men ($M = 4.72$) as opposed to women's more favorable rating ($M = 3.55$). Although there is no undisputed explanation for this phenomenon, it is possible that the less favorable response garnered from men is an issue related to the men's perceived loss of control. This sense of loss of control is, perhaps, exacerbated in the situation when the erection is not intentional or desired, thus becoming a potentially embarrassing occurrence. A similar sense of loss of control may be incurred when the erection is desired, but is "terminated" prematurely, contrary to the man's wishes or his partner's.

The term *pornography* achieved a more favorable evaluative index among women ($M = 3.26$) than among men ($M = 3.78$). This finding contradicts what McDermott et al. (1989) reported, where the statistically significant mean ratings were 4.69 and 5.75 for men and women, respectively. The migration for both genders is away from solidly unfavorable indices, toward a neutral or even slightly favorable assessment. As with the term *orgasm* discussed previously, this apparent change lends supports to an argument that the much talked about sexual revolution of the 1960s and 1970s continues today. The advent of the Internet, the expansion of cable television, evolving arguments over what is considered "pornographic" versus "art," and other events that increase exposure of today's young adults to photographs, images, and other displays that once clearly would have been labeled as "pornography," may obscure both the denotative and connotative meanings of the word.

Previous literature does not report on the connotative meanings of terms such as *breast enlargement*, *Internet sex*, *oral sex*, and *transgender*, all of which yielded statistically significant, more favorable ratings among women in this investigation of the impact of language. The term *breasts* received highly favorable connotative indices from both men and women in a 1985 cohort of university students (McDermott et al., 1989). The higher rating assigned to *breast enlargement* by women in the present study may emanate from the emphasis placed on

body image, especially its role in women's definition of their sexuality. Summers-Effler (2004) wrote, "Breasts are the most obvious sign of the sexualized adult feminine body" (p. 32). Thompson and Tantleff (1992) reported that women tend to perceive their breasts as smaller than an "ideal size," and much smaller than what they perceive men want them to be. Moreover, they showed that having large breasts was associated with positive attributes such as popularity and confidence. Yalom (1997) suggested that how women perceive their breasts is an indicator of their overall self-esteem as well as a defining feature of their sexual attractiveness. Research by Tantleff-Dunn (2001) affirmed that breast size ideals have remained constant in the past decade, with men's perceived ideal size exceeding that of women's. Further, women have continued to overestimate the breast size that men prefer (Tantleff-Dunn, 2001). Women who perceived their breasts as being small also reported less favorable body image overall (Koff & Benavage, 1998). Some authors (e.g., Buss & Schmitt, 1993; Davis & Vernon, 2002) have suggested that enhancement of physical attributes, although important to both genders, is more important to women for making them more desirable to potential romantic partners. Harrison (2003) wrote that exposure to an "ideal" female body image leads to approval of augmentation and other cosmetic surgeries. In addition, Brownell and Napolitano (1995) demonstrated that the famed Barbie doll, if made life-size, would have breast-waist-hip measurements in inches of 38-18-34. The favorable rating women give to *breast enlargement* could signal acceptance of such unrealistic body image expectations, and an acquiescence to pursue body shape outcomes despite the dangers of doing so. Finally, women's motivation to want to enlarge their breasts may be sustained by their inaccurate perceptions of what they consider to be ideal (Tantleff-Dunn, 2001).

The term *oral sex* obtained favorable evaluative indices from both genders, but a significantly more favorable rating from women. However, the context of *oral sex* (i.e., giving vs. receiving) was not a feature of the present research, but could influence the relative strength of the responses given by these university students. In future investigations, the directionality of the activity could be explored.

The concept of *Internet sex* is new to the sexual lexicon, having emerged only in the last decade. Because recent data continue to support the heavier use of the Internet by men (ClickZ Stats Staff, 2002), and Internet websites with a sexual theme are presumed

to have a greater appeal for male than for female consumers, the more favorable rating of *Internet sex* by women was unexpected. Perhaps the environment of the Internet provides a safe venue for women, allows them to be sexually expressive with minimal risk to self or self-esteem, or offers other attractive features that men do not find or acknowledge as readily.

Transgender is another construct that has found its way into the sexual vocabulary during the past decade. Although the quantitative rating of the term was not that different for men ($M = 4.25$) and women ($M = 3.94$), the means were significantly different. In the case of the term *transgender*, even the denotative meaning is somewhat disputed. One definition includes everything not clearly subsumed under society's narrowly defined constructs of "man" and "woman." Thus, a partial list of persons who might comprise an operational definition of *transgender* includes transsexuals, transvestites, cross-dressers, persons with ambiguous genitalia, persons who have chosen an ambiguous social gender, and persons who have chosen no social gender at all (Nangeroni, 1999). Of the 42 constructs explored in this study, this term may be one whose definition could be least well known to respondents.

The principal components analysis provided little insight with respect to distinguishing men's and women's evaluative dimensions. Although there may, in fact, be no gender difference in these dimensions, the specific adjective pairs employed in this instrument may have been a limiting element. Osgood et al. (1957) showed that careful use of adjective pairs produced factors that could be given the labels of *evaluation*, *potency*, and *activity*, sometimes referred to as the EPA dimensions. According to Heise (1970), some word pairs can yield almost pure measures of these EPA dimensions—for instance, "good–bad," "nice–awful," "sweet–sour," and "helpful–unhelpful" for *evaluation*; "powerful–powerless," "big–little," "strong–weak," and "deep–shallow" for *potency*; and "fast–slow," "alive–dead," "noisy–quiet," and "young–old" for *activity*. Through using a few "pure" adjective pairs, one theoretically obtains reliable measures of a respondent's overall assessment of the particular construct of interest. In the current study, the adjective pairs that had been derived from earlier work excluded many of the pairs that represent dimensions other than *evaluation*. Thus, the absence of other theoretically strong dimensions by which to rate sexual words may have limited the utility of the factor analysis procedure.

This study has some other notable limitations. The sample was cross-sectional and one of convenience. It was delimited to the undergraduate students at one university (primarily freshmen and sophomores). Only students in attendance on the day of survey administration were eligible for inclusion in the sample. Therefore, it cannot be assumed to represent all undergraduate students at that university, students at other universities, or persons in all regions of the country. The instrument also was delimited to specific sets of bipolar adjectives. Other word pairs may have elicited other types of responses and revealed factors or dimensions not ascertained in the current study. The actual validity of treating the individual semantic differential subscales as equal and additive may be debated, although presumed validity has been an assumption of several previous researchers (e.g., Herold & Goodwin, 1980; Kee & Darroch, 1981; McDermott et al., 1989; McDermott & Gold, 1986, 1986–87; Sarvela et al., 1992; Westhoff et al., 1999). Possibly, the use of a weighting mechanism is appropriate prior to carrying out the summing procedure. Age, region of the country, and other sources of difference may influence how people react to sexual language. In addition, the entire universe of possible sexuality-related terms could not be presented feasibly. Other constructs might elicit different degrees of positive or negative responses from students. This study used words that might be described as words of “common discourse” (McDermott, 1994). Sexual slang or specific derogatory terms were intentionally excluded in this selection of sexual words. It was assumed that university students would be familiar with this subset of all possible sexuality words, but this assumption may be flawed, and represent yet another limitation. Finally, the utility of adjusting (or not adjusting) the alpha level to compensate for conducting multiple statistical tests can be debated with respect to offering assistance or guidance in the interpretation of the findings.

Conclusions

An understanding of the idiosyncrasies of language in the instructor–learner, patient–provider, or partner–partner exchange is an essential element of twenty-first century communication dialogue and debate. Of particular interest is the semantic meaning assigned to language, as it affects the *communicative competence* of the participants in any transaction.

Sexuality-related words and the constructs they represent to people can be powerful forces. How a word is perceived connotatively by the sender and the receiver during an exchange may influence learning and understanding, self-acceptance, gender role expectations, whether or not new insights are gained, or whether the communication effort results in failure.

Communicative competence is increased when professionals are alerted to, and reminded of, the idiosyncratic nature of language. Antrobus (1993) has concluded that the training of health professionals should be directed at increasing understanding of issues related to power and gender. How a health care provider addresses a patient, and whether “power” words are included in that exchange may provide important preprofessional and continuing education discussion opportunities.

According to Cook (1993) a great challenge facing women is the modification of the social and cultural conduct of men and women to eliminate prejudices and stereotyped gender roles and expectations. Language, especially the choice of terms, may play a role in impacting and altering society’s remnants of gender discrimination and inequity. Further examination of the different responses elicited from men and women through in-depth or focus group interviews may add to the understanding of how sexuality-related terms are used and interpreted.

In education about sexual matters, regardless of venue, a thorough examination of the emotional impact of sexual language is valuable. Similar sets of responses to sexuality-related terms, as well as ones that were quite disparate were identified in this study. This work confirms the findings of previous researchers, but also demonstrates that some changes in the interpretative meaning of sexual language also have taken place. The failure to weigh the connotative images stimulated by certain words, or to monitor the emergence of new words and the evolving meanings assigned to old ones, enhances the likelihood of creating misunderstanding in educational and therapeutic settings, as well as anywhere else where interpersonal discourse occurs.

REFERENCES

- Alexander, S., & Ryan, M. (1997). Social constructs of feminism: A study of undergraduates at a woman’s college. *College Student Journal, 31*, 555–568.
- Antrobus, P. (1993). A gender approach to health delivery systems: The Caribbean case. In E. G. Gómez (Ed.), *Gender, women, and health in the Americas* (pp. 18–22). Washington, DC: Pan American Health Organization.

- Barratt, M. S., & Risser, W. L. (1998). Sexual terminology: A barrier to communication between adolescents and health care providers. *Ambulatory Child Health, 4*(1), 21–31.
- Baudhim, E. S. (1973). Obscene language and evaluative response: An empirical study. *Psychological Reports, 32*, 399–402.
- Binson, D., & Catania, J. A. (1998). Respondents' understanding of the words used in sexual behavior questions. *Public Opinion Quarterly, 62*, 190–208.
- Brownell, K. D., & Napolitano, M. A. (1995). Distorting reality for children: Body size proportions of Barbie and Ken dolls. *International Journal of Eating Disorders, 18*, 295–298.
- Buss, D. M., & Schmitt, D. P. (1993). Sexual strategies theory: An evolutionary perspective on human mating. *Psychological Review, 100*, 204–232.
- ClickZ Stats Staff. (2002). *Men still dominate worldwide Internet use*. Retrieved July 11, 2004, from http://www.clickz.com/stats/big_picture/demographics/article.php/5901_959421.
- Cook, R. J. (1993). International law and women's health. In E. G. Gómez (Ed.), *Gender, women, and health in the Americas* (pp. 244–251). Washington, DC: Pan American Health Organization.
- Davis, D., & Vernon, M. L. (2002). Sculpting the body beautiful: Attachment style, neuroticism, and use of cosmetic surgeries. *Sex Roles, 47*, 129–138.
- Galanti, G. A. (1991). *Caring for patients from different cultures*. Philadelphia: University of Pennsylvania Press.
- Geer, J. H. (1996). Gender differences in the organization of sexual information. *Archives of Sexual Behavior, 25*, 91–107.
- Geer, J. H., & Bellard, H. S. (1996). Sexual content induced delays in unprimed lexical decisions: Gender and context effects. *Archives of Sexual Behavior, 25*, 379–395.
- Geer, J. H., & Melton, J. S. (1997). Sexual content-induced delay via double-entendre words. *Archives of Sexual Behavior, 26*, 295–316.
- Gold, R. S., Regin, K., McDermott, R. J., & Drolet, J. C. (1985, December). *Instruments to measure the connotations of health-related terms. Tests in Microfiche, Set K* (TC 014046). Princeton, NJ: Educational Testing Service.
- Hama, Y., Mine, H., & Matsuyama, Y. (1979). The sensory and emotional meaning of sexual words. *Japanese Journal of Psychology, 50*, 110–112.
- Harrison, K. (2003). Television viewers' ideal body proportions: The case of the curvaceously thin woman. *Sex Roles, 48*, 255–264.
- Haslanger, S., & Tuana, N. (2004). Topics in feminism. In E. D. Zalta (Ed.), *The Stanford encyclopedia of philosophy* (Spring 2004 ed.). Retrieved July 8, 2004, from <http://plato.stanford.edu/archives/spr2004/entries/feminism-topics>
- Heise, D. R. (1970). The semantic differential and attitude research. In G. F. Summers (Ed.), *Attitude measurement* (pp. 235–253). Chicago: Rand McNally.
- Herold, G. S., & Goodwin, M. S. (1980). Development of a scale to measure attitudes toward birth control pills. *Journal of Social Psychology, 110*, 115–122.
- Jackson, S. M., & Cram, F. (2003). Disrupting the sexual double standard: Young women's talk about sexuality. *British Journal of Social Psychology, 42*, 113–127.
- Kee, P.-K., & Darroch, R. K. (1981). Perception of methods of contraception: A semantic differential study. *Journal of Biosocial Science, 13*, 209–218.
- Kidder, L. M. (1981). *Research methods in social relations*. New York: Holt, Rinehart & Winston.
- Koff, E., & Benavage, A. (1998). Breast size perception and satisfaction, body image, and psychological functioning in Caucasian and Asian American college women. *Sex Roles, 38*, 655–673.
- Kramer, C., Thorne, B., & Henley, N. (1978). Perspectives on language and communication. *Signs, 3*, 638–651.
- Kutner, N. G., & Brogan, D. (1974). An investigation of sex-related slang vocabulary and sex-role orientation among male and female university students. *Journal of Marriage and the Family, 36*, 474–484.
- McDermott, R. J. (1994). The power of words: Talking about sexuality. In J. C. Drolet & K. Clark (Eds.), *The sexuality education challenge* (pp. 255–268). Santa Cruz, CA: ETR Associates.
- McDermott, R. J., Drolet, J. C., & Fetro, J. V. (1989). Connotative meanings of sexuality-related terms: Implications for educators and other practitioners. *Journal of Sex Education and Therapy, 15*, 103–113.
- McDermott, R. J., & Gold, R. S. (1986, April). Gender differences in perception of contraception alternatives by never-married college students. *Resources in Education* (SP 026849).
- McDermott, R. J., & Gold, R. S. (1986–87). Racial differences in the perception of contraception option attributes. *Health Education, 17*(6), 9–14.
- McDermott, R. J., & Sarvela, P. D. (1999). *Health education evaluation and measurement: A practitioner's perspective* (2nd ed.). Madison, WI: WCB/McGraw-Hill.
- Meggison, D. (1996). *Connotations and denotations*. Retrieved July 8, 2004, from <http://www.uottawa.ca/academic/arts/writcent/hypergrammar/conndeno.html>
- Mumpower, D. L. (1973). Emotional involvement as a factor in the learning process. *Journal of Educational Research, 66*, 251–253.
- Nangeroni, N. (1999). *Transgender*. Retrieved July 8, 2004, from <http://sandystone.com/trans.html>
- Osgood, C. E. (1964). Semantic differential technique in the comparative study of cultures. *American Anthropologist, 66*, 171–200.
- Osgood, C. E. (1965). Cross-cultural comparability in attitude measurement via multilingual semantic differentials. In I. D. Steiner & M. Fishbein (Eds.), *Current studies in social psychology* (pp. 95–107). New York: Holt, Rinehart and Winston.
- Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. (1957). *The measurement of meaning*. Urbana, IL: University of Chicago Press.
- Perneger, T. V. (1998). What's wrong with Bonferroni adjustments. *BMJ, 315*, 1236–1238.
- Plaud, J. J., Gaither, G. A., Franklin, M., Weller, L. A., & Barth, J. (1998). The effects of sexually explicit words on the formation of stimulus equivalence classes. *Psychological Record, 48*, 63–79.
- Plaud, J. J., Gaither, G. A., & Weller, L. A. (1998). Gender differences in the sexual rating of words. *Journal of Sex and Marital Therapy, 24*, 13–19.
- Robinson, I. E., Balkwell, J. W., & Ward, D. M. (1980). Meaning and behavior: An empirical study in sociolinguistics. *Social Psychology Quarterly, 43*, 253–258.
- Roffman, D. M. (1991, June/July). The power of language: Baseball as a sexual metaphor in American culture. *SIECUS Report, 19*(5), 1–6.
- Rothman, K. J. (1990). No adjustments are needed for multiple comparisons. *Epidemiology, 1*, 43–46.
- Rubenstein, J. S., Watson, F. G., Drolette, M. E., & Rubenstein, H. S. (1976). Young adolescents' sexual interests. *Adolescence, 11*, 487–496.
- Rubin, L. (1994). *Families on the faultline: America's working class speaks about the family, the economy, race, and ethnicity*. New York: Harper Collins.
- Sanders, J. S., & Robinson, W. L. (1979). Talking and not talking about sex: Male and female vocabularies. *Journal of Communication, 29*, 22–30.
- Sarvela, P. D., Huetteman, J. K. D., McDermott, R. J., Holcomb, D. R., & Odulana, J. A. (1992). Connotative meanings assigned to contraceptive options. *Journal of American College Health, 41*, 91–97.

- Simkins, L., & Rinck, C. (1982). Male and female sexual vocabulary in different interpersonal contexts. *Journal of Sex Research, 18*, 160–172.
- Stewart, R. W. (1999). Laterality of the perception of computer-presented written sexual words by right-handed males and females. *Dissertation Abstracts International, 59*(7-B), 3761.
- Summers-Effler, E. (2004). Little girls in women's bodies: Social interaction and the strategizing of early breast development. *Sex Roles, 51*, 29–44.
- Tantleff-Dunn, S. (2001). Breast and chest size: Ideals and stereotypes through the 1990s. *Sex Roles, 45*, 231–242.
- Thompson, J. K., & Tantleff, S. (1992). Female and male ratings of upper torso: Actual, ideal, and stereotypical conceptions. *Journal of Social Behavior and Personality, 7*, 345–354.
- Toller, P. W., Suter, E. A., & Trautman, T. C. (2004). Gender role identity and attitudes toward feminism. *Sex Roles, 51*, 85–90.
- Walsh, R. H., & Leonard, W. M. (1974). Usage of terms for sexual intercourse by men and women. *Archives of Sexual Behavior, 3*, 373–376.
- Weaver, R. M. (1974). *A rhetoric and composition handbook*. New York: Morrow.
- Westhoff, W. W., McDermott, R. J., Valentin de Sierra, R., Drolet, J. C., Fetro, J. V., & Joerg-Cole, J. (1999). Connotative meanings of sexuality-related terms assigned by nursing students at a Dominican Republic university. *International Electronic Journal of Health Education, 2*, 150–158. Retrieved from <http://www.iejhe.org>
- Yalom, M. (1997). *A history of the breast*. New York: Ballantine.