

Category-Specificity in Sexual Interest in Gay Men and Lesbians

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Abstract The present study assessed the category-specificity of sexual interest of gay men and lesbians toward an understanding of the possible interaction of sex and sexual orientation that may exist in this phenomenon. Utilizing viewing time as a measure of sexual interest, we had participants ($N = 99$) rate the sexual appeal of sexually provocative pictures while the amount of time spent viewing each picture was inconspicuously measured. As hypothesized, same-sex oriented individuals demonstrated a category-specific pattern of sexual interest. That is, gay men and lesbians (1) viewed preferred sex pictures (i.e., of same sex) significantly longer than nonpreferred sex pictures (i.e., of opposite sex) and (2) rated preferred sex pictures as significantly more sexually appealing than nonpreferred sex pictures. Additionally, the difference in viewing times between preferred and nonpreferred sexual stimuli was not significantly different for gay men and lesbians, suggesting that lesbians are as category-specific as gay men. The implications of these findings are discussed.

Keywords Category-specificity · Sexual orientation · Sexual interest · Viewing time

Introduction

Sexual arousal and interest are constructs that have long been the focus of research attention (e.g., Chivers, Rieger, Latty, & Bailey, 2004; Kinsey, Pomeroy, & Martin, 1948; Laumann, Gagnon, Michael, & Michaels, 1994). Sexual interest can

be defined as the predisposition to respond sexually to a preferred category (e.g., adult females), while sexual arousal generally refers to the psychological, physiological, and behavioral responses to an internal or external target of sexual interest (Chivers, 2005; Geer, Lapour, & Jackson, 1992; Singer, 1984). Sexual arousal is generally considered an indicator of sexual interest (Chivers, 2005).

Sex differences in sexual expression have been a major focus of research (e.g., Baumeister, 2000; Laan & Everaerd, 1995; Laumann et al., 1994; Savin-Williams & Diamond, 2000). Much of the previous research in this area has tended to conclude that sexual arousal and interest of men and women are, at a very basic level, quite different. Examples include the declaration that women's sexuality is flexible, while men's sexuality is static, and that women, but not men, have a bisexual pattern of sexual attraction (e.g., Baumeister, 2000; Lippa, 2006, 2007; Pattatucci, 1998). However, little attention has been paid to investigating how sexual orientation (gay, heterosexual, bisexual) might interact with sex differences (men vs. women) in affecting sexual interest and arousal.

In contrast, research on category-specificity, a newly identified quality of sexual attraction, has recently focused on examining the generalizability of sex differences in sexual interest and arousal across sexual orientations (e.g., Chivers, 2005; Chivers & Bailey, 2005; Chivers, Seto, & Blanchard, 2007; Chivers et al., 2004; Lawrence, Latty, Chivers, & Bailey, 2005; Rieger, Chivers, & Bailey, 2005). Category-specificity is defined as the degree to which sexual arousal/interest is dependent on characteristics of sexual targets portrayed in a category of stimuli (Chivers, 2005).

Heterosexual Sexual Arousal Patterns

Heterosexual men's sexual arousal has been found to be quite category-specific. That is, they demonstrate far greater

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arousal to females than they do to males (e.g., Chivers & Bailey, 2005; Chivers et al., 2004, 2007; Lawrence et al., 2005; Rieger et al., 2005). This holds true whether men's arousal is assessed objectively (e.g., physiologically) or subjectively (e.g., via self-report). Most recently, Israel and Strassberg (2008), using viewing time (VT) as an objective index of sexual interest, found that heterosexual men evidenced much longer viewing times to sexually provocative pictures of women than of men and rated the former much higher in sexual appeal.

In contrast, the findings for heterosexual women are somewhat more complicated. When assessed via vaginal plethysmography (e.g., Chivers & Bailey, 2005; Chivers et al., 2004, 2007; Steinman, Wincze, Sakheim, Barlow, & Mavissakalian, 1981; Wilson & Lawson, 1978), heterosexual women have demonstrated a generally nonspecific pattern of sexual arousal (i.e., no significant difference in their arousal to heterosexual or gay/lesbian stimuli). However, the self-reports of heterosexual women's sexual interest or arousal, as well as their viewing times, have demonstrated at least some degree of category-specificity consistent with their sexual orientation (e.g., Chivers & Bailey, 2005; Chivers et al., 2004, 2007; Israel & Strassberg, 2008; Steinman et al., 1981).

Overall, research indicates that, no matter how assessed, heterosexual men display a much more category-specific pattern of sexual arousal than do heterosexual women. However, we lack a clear theoretical understanding of the sex differences in category specificity.

Non-Heterosexual Sexual Arousal Patterns

Identical to heterosexual men, gay men show a strong category-specific pattern of sexual arousal (e.g., Chivers et al., 2004, 2007; Freund, 1963; Freund, Watson, & Rienzo, 1989; Lippa, 2006, 2007; Sakheim, Barlow, Beck, & Abrahamson, 1985; Wincze & Qualls, 1984). Same-sex oriented women also appear to show a pattern of sexual arousal that is relatively category-specific (i.e., more so than that of heterosexual women) (Blackford, Doty, & Pollack, 1996; Chivers et al., 2004, 2007; Lippa, 2006, 2007; Wincze & Qualls, 1984; Wright & Adams, 1999). For example, Chivers et al. (2007) presented women with a variety of erotic stimuli and assessed physiological and subjective sexual arousal. When presented with stimuli depicting only one person (i.e., masturbating, exercising in the nude), women who reported a predominantly or exclusively homosexual orientation demonstrated a category-specific pattern of sexual arousal (when assessed either through self-report or physiological measurement). However, despite such data, researchers have generally emphasized the main effect of participant sex, rather than its interaction with sexual orientation, in discussing category specificity (i.e., men

are category specific, women are not) (e.g., Bailey, 2009; Chivers et al., 2004; Lippa, 2006).

Measures of Sexual Arousal/Interest

Most research on sexual interest or arousal has relied on genital plethysmography and/or self-reports. However, not only do both techniques have well-documented limitations (e.g., Laan, Everaerd, Van Der Velde, & Geer, 1995; Mahoney & Strassberg, 1991), but the different techniques also often appear to yield different degrees of category-specificity for women (e.g., Chivers & Bailey, 2005; Chivers et al., 2004). Researchers have recently begun to examine possible alternative objective measures of sexual interest, including viewing time. Viewing time, a measure of continuous visual attention to an erotic stimulus (Fischer, 2000), has been demonstrated to be a reliable and valid objective measure of sexual arousal. That is, studies have supported that individuals will look longer at their preferred sex than their non-preferred sex, both for heterosexuals and non-heterosexuals (Israel & Strassberg, 2008; Quinsey, Rice, Harris, & Reid, 1993; Wright & Adams, 1994, 1999; Zamansky, 1956).

Viewing time, for both men and women, has several advantages over genital plethysmography as an objective measure of sexual interest. It is less invasive, less susceptible to volunteer bias (Morokoff, 1985; Strassberg & Lowe, 1995; Wolchik, Braver, & Jensen, 1985; Wolchik, Spencer, & Iris, 1983), and it may be less vulnerable to participants' conscious misrepresentation of their sexual interest pattern (Fischer, 2000; Golde, Strassberg, & Turner, 2000; Gress, 2005; Harris, Rice, Quinsey, & Chaplin, 1996; Quinsey, Ketsetzis, Earls, & Karamanoukian, 1996). Most importantly, it allows for direct comparisons of men's and women's sexual interest.

The Present Study

As described above, results from several studies suggest that sex differences in the specificity of sexual interest and arousal routinely evidenced among heterosexuals may not be generalizable to those with a same-sex orientation. The present study examined this possible interaction further. Utilizing a different (perhaps preferable) measure of sexual interest (i.e., viewing time) than previous work in this area, the present study tested the hypothesis that gay men and lesbians will both demonstrate a category-specific pattern of sexual interest.

Specifically, it was predicted that, when presented with sexually provocative (i.e., partially clothed) same-sex and opposite-sex pictures, both gay men and lesbians (H1a) would view same sex pictures significantly longer than opposite sex pictures and (H1b) would rate same sex pictures significantly more sexually appealing than opposite sex pictures.

Method

Participants

Participants, age 18 years and older (men's M age = 24, SD = 4.14, range = 18–33 years; women's M age = 25, SD = 4.40, range = 18–35) were recruited through college campus and city-wide flyers, newspaper advertisements, local online classifieds (e.g., Craigslist), online communities (e.g., MySpace), a local Pride Festival, and from a university psychology department participant pool. Only individuals who considered themselves a 5 (predominantly homosexual, only incidentally heterosexual) or a 6 (exclusively homosexual) on the 0–6 Kinsey Scale (Kinsey et al., 1948) were accepted for this study. A total of 99 individuals were included: 52 self-identified gay men and 47 self-identified lesbians. Participants were compensated \$10 for their participation. The measures, stimulus material, and procedures of this study were identical to those of Israel and Strassberg (2008) to which the reader is referred for more detail.

Measures

Participants completed a brief sexual orientation questionnaire via the computer. The questionnaire included items related to current and recent sexual fantasies, behaviors, and romantic attractions (Kinnish, Strassberg, & Turner, 2005). The primary dependent measures consisted of participants' sexual appeal ratings and viewing times for each picture viewed.

Stimulus Material

Stimulus materials consisted of 25 pictures of adult men and 25 pictures of adult women, all chosen from popular magazines, websites, and catalogues. Ten neutral pictures (e.g., lakes and mountains) were also included. For more detail, see Israel and Strassberg (2008).¹

Procedure

After providing informed consent, participants completed the sexual orientation questionnaire. They then viewed the 60 pictures (25 men, 25 women, 10 neutral), presented in random order, via a computer program that allowed the viewer to forward through the pictures, but not return to previously viewed pictures. Participants were instructed as follows: "We would like you to rate each of the following pictures in

terms of how sexually appealing you find the picture to be. Please make your ratings on a scale of 1–7, where 1 is 'not at all sexually appealing' and 7 is 'extremely sexually appealing.' We are interested in your rating of each picture, not how you believe others might rate the picture." Participants were informed that they would be viewing the pictures more than once. The rationale (not shared with participants) for showing each picture twice was to evaluate the reliability of any significant effects found. The second block of 60 pictures was identical to the first block, but was presented in a different, random order.

A computer program (DirectRT v 2004; www.empirisoft.com) tracked participants' viewing times without their knowledge by recording the time required to make their sexual appeal ratings once the picture appeared on the computer screen. The procedure took approximately 25 min to complete.

Results

Viewing Time

Figure 1 shows the mean viewing time as a function of sex and picture type. A 2 (Sex) \times 3 (Picture Type: Male, Female, Neutral) \times 2 (Trial) mixed-model analysis of variance (ANOVA) revealed a significant Sex by Picture Type interaction, $F(2, 97) = 45.29, p < .001, \eta p^2 = .32$. The significant interaction was examined further through univariate ANOVAs comparing viewing times for the three picture types separately by sex. Consistent with Hypothesis 1a, gay and lesbian participants viewed same sex pictures significantly longer than opposite sex pictures. For gay men, there was a significant effect for picture type, $F(2, 51) = 40.33, p < .001, \eta p^2 = .44$: Gay men's viewing times were longest for the pictures of men followed by the pictures of women and the neutral pictures. Post hoc testing (LSD) revealed that the contrast between pictures of men and pictures of women and the contrast between pictures of men and neutral pictures were significant (both $ps < .001$). The contrast between pictures of women and neutral pictures did not reach significance ($p > .05$). For lesbians, there was also a significant effect for picture type, $F(2, 46) = 19.5, p < .001, \eta p^2 = .30$. Lesbian's viewing times were longest to the pictures of women, followed by the neutral pictures and the pictures of men, with post hoc testing (LSD) showing that the contrast between pictures of women and pictures of men and the contrast between pictures of women and neutral pictures were significant (both $ps < .001$). The contrast between pictures of men and neutral pictures was not significant (see Fig. 1). Of note, a t -test comparing the difference in viewing times between preferred and nonpreferred sexual stimuli was not significantly different for gay men and lesbians ($t = 1.36, df = 97, p > .17$).

¹ The stimuli are available from the corresponding author upon request.

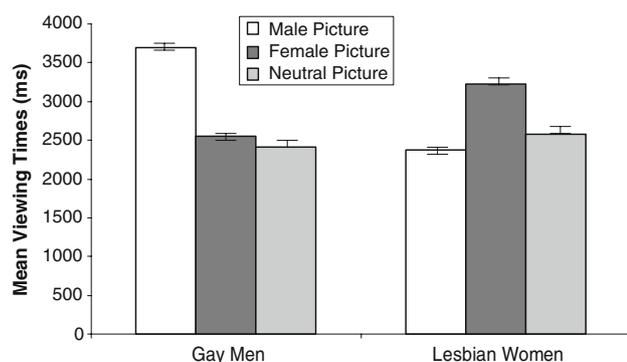


Fig. 1 Mean viewing time (\pm SE) by participant sex and picture type for gay/lesbian participants

Sexual Appeal Ratings

Figure 2 shows the mean sexual appeal ratings as a function of sex and picture type. A 2 (Sex) \times 3 (Picture Type: Male, Female, Neutral) \times 2 (Trial) mixed-model analysis of variance (ANOVA) revealed a significant effect for the Sex by Picture Type interaction, $F(2, 97) = 233.64, p < .001, \eta^2 = .71$. The significant interaction was examined further through univariate ANOVAs comparing ratings of the three picture types separately by sex. For gay men, there was a significant effect for picture type, $F(2, 51) = 217.53, p < .001, \eta^2 = .84$. Consistent with Hypothesis 1b, gay men's sexual appeal ratings were highest to the pictures of men, followed by the neutral pictures and the pictures of women. Post hoc testing (LSD) revealed that the contrast between pictures of men and those of women and the contrast between pictures of men and the neutral pictures were significant (both $ps < .001$). The contrast between pictures of women and neutral pictures was not significant. For lesbians, there was also a significant effect for picture type, $F(2, 46) = 73.07, p < .001, \eta^2 = .61$. Lesbian's sexual appeal ratings were highest to the pictures of women, followed by the neutral pictures and the pictures of men. Post hoc testing (LSD) revealed appeal ratings to all three groups of pictures to be significantly different from each other: Pairwise comparisons of

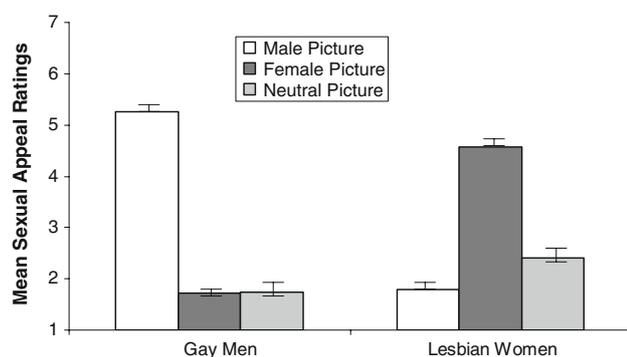


Fig. 2 Mean sexual appeal rating (\pm SE) by participant sex and picture type for gay/lesbian participants (absolute range, 1–7)

ratings of pictures of women to those of men or to the neutral pictures yielded $ps < .001$, while the comparison of the pictures of men to the neutral pictures yielded a $p < .05$ (see Fig. 2).

Classification Analysis

Finally, to identify more precisely the extent to which viewing time could distinguish gay men and lesbians, a discriminant analysis procedure was performed. The viewing times for the pictures of men and women in both trials served as the independent variable while participant sex served as the grouping variable. Overall, the viewing time patterns shown by gay men and lesbians in response to pictures of men and women were sufficiently different that participant sex could be correctly identified from viewing times for 88% of the cases. Further, there were fewer women misclassified as men (6.4%) than men misclassified as women (15.4%). These findings were almost identical to those reported by Israel and Strassberg (2008) for heterosexual participants.

Discussion

Prior studies on sexual interest and arousal consistently revealed a strongly category specific pattern for men (gay and heterosexual) and a non-specific pattern for heterosexual women (Chivers & Bailey, 2005; Chivers et al., 2004, 2007; Israel & Strassberg, 2008). Our results add to this picture by demonstrating that both gay men's and lesbian's sexual interest were strongly dependent upon target sex, supporting the importance of an interaction and suggesting that conceptualizing category-specificity as a main effect of sex (i.e., men are category specific, women are not) (e.g., Bailey, 2009; Chivers et al., 2004; Lippa, 2006) is inaccurate, or at least incomplete.

In speculating about possible reasons for our findings, we will concentrate on the results for the lesbians because, unlike for gay men, the lesbians' strongly category specific pattern of interest stands in sharp contrast to that of their female heterosexual counterparts.

When considering the possibility that all women might demonstrate a non-specific pattern of sexual interest or arousal (e.g., Chivers & Bailey, 2005), one explanation offered was that perhaps women's bodies evolved so as to be sexually responsive to almost any sexual stimulus to automatically prepare women for sexual intercourse (e.g., via vaginal lubrication) in order to protect the vaginal environment from injury and infection (e.g., associated with rape). Recent results (Chivers et al., 2004, 2007) and those of the present study suggest at least some women (i.e., lesbians) demonstrate clear category-specificity; therefore, the self-protective explanation for non-specificity in women needs to be amended to account for this.

What if it is only a masculinized brain that exhibits category-specific sexual interest or arousal? It is known that gay men and heterosexual men are prenatally exposed to relatively high (if not necessarily equal) levels of androgens (Wilson & Rahman, 2005). It has been hypothesized that many females who go on to identify as lesbians have also been exposed to higher than normal (for women) levels of prenatal androgens. According to this hypothesis, such exposure may overmasculinize their brains during early development, affecting brain structures and processes that influence sexual behavior (Ellis & Ames, 1987; Wilson & Rahman, 2005). While the evidence supporting this theory is indirect (i.e., based largely on women with congenital adrenal hyperplasia) and far from completely supportive (e.g., Dancy, 1990; Lipka, 2003), it is possible that such prenatal hormone exposure, should it exist, could result in lesbians (compared to heterosexual women) appearing more like men in their discriminating pattern of sexual interest or arousal (i.e., category-specific).

Alternatively (or additionally), it is possible that social influences may help account for the specificity in lesbian's sexual interest or arousal compared to that of heterosexual women. Relative to heterosexual women, lesbians may experience greater pressure from their subculture to (1) express their interest in their preferred sex (Newton, 1984) and (2) suppress any sexual interest to their nonpreferred sex (Golden, 1996; Hoagland & Penelope, 1991; Whisman, 1993) in order to legitimize their self-identified sexual orientation. While lesbians self-identify as such for many reasons, a primary commonality among these may be a rejection of men, whether political, social, or sexual (e.g., Blumstein & Schwartz, 1977; Bower, Gurevich, & Mathieson, 2002; Golden, 1996; Hoagland & Penelope, 1991; Rust, 2002, 2003; Stein, 1999; Whisman, 1993). As described by Golden (1996), "The critical issue in determining the 'legitimacy' of a woman's claim to a lesbian identity is not whether she is sleeping with women, but whether she is sleeping with men" (p. 232). Perhaps these social pressures manifest as a sexual aversion to their nonpreferred sex. Consistent with this hypothesis was the finding in the present study that lesbians (unlike the heterosexual women in Israel & Strassberg, 2008) demonstrated less sexual interest (significantly so for self-report) in pictures of their nonpreferred sex than to the neutral pictures. Assuming that neutral pictures provided an index of baseline (i.e., absent) sexual interest, these findings suggest that lesbians (but not heterosexual women) have an aversion to sexualized pictures of their nonpreferred sex, rather than simply a lack of sexual interest in them.

While the generalizability of our results may be limited by the particular pictures of men and women used and a predominantly European-American participant population, our findings have potentially important implications for how women's sexuality is conceptualized. Specifically, much of the category-specificity research suggests that women's

sexual arousal may be insignificant in the development of their sexual orientation (Chivers et al., 2004). The present study suggests otherwise. That is, the lesbians in the present study demonstrated a very clear preference for viewing their preferred sex (i.e., women), as opposed to their nonpreferred sex (i.e., men), and rated pictures of women substantially and significantly more sexually appealing than they did pictures of men. Thus, the present study argues that for lesbians, their pattern of sexual interest is substantially related to their sexual orientation. This finding highlights the need for not only separate models of sexual expression for men and women (Chivers et al., 2004), but also distinct models for lesbians and heterosexual women.

References

- Bailey, J. M. (2009). What is sexual orientation and do women have one? In D. A. Hope (Ed.), *Contemporary perspectives on gay, lesbian, and bisexual identities* (pp. 43–63). Lincoln, NE: Springer.
- Baumeister, R. F. (2000). Gender differences in erotic plasticity: The female sex drive as socially flexible and responsive. *Psychological Bulletin*, *126*, 347–374.
- Blackford, L., Doty, S., & Pollack, R. (1996). Differences in subjective sexual arousal in heterosexual, bisexual, and lesbian women. *Canadian Journal of Human Sexuality*, *5*, 157–167.
- Blumstein, P. W., & Schwartz, P. (1977). Bisexuality: Some social psychological issues. *Journal of Social Issues*, *33*, 30–45.
- Bower, J., Gurevich, M., & Mathieson, C. (2002). (Con)Tested identities: Bisexual women reorient sexuality. *Journal of Bisexuality*, *2*, 23–52.
- Chivers, M. L. (2005). A brief review and discussion of sex differences in the specificity of sexual arousal. *Sexual and Relationship Therapy*, *20*, 377–390.
- Chivers, M. L., & Bailey, J. M. (2005). A sex difference in features that elicit genital response. *Biological Psychology*, *70*, 115–120.
- Chivers, M. L., Rieger, G., Latty, E. M., & Bailey, J. M. (2004). A sex difference in the specificity of sexual arousal. *Psychological Science*, *15*, 736–744.
- Chivers, M. L., Seto, M. C., & Blanchard, R. (2007). Gender and sexual orientation differences in sexual response to sexual activities versus gender of actors in sexual films. *Journal of Personality and Social Psychology*, *93*, 1108–1121.
- Dancy, C. P. (1990). Sexual orientation in women: An investigation of hormonal and personality variables. *Biological Psychology*, *30*, 251–264.
- Ellis, L., & Ames, M. A. (1987). Neurohormonal functioning and sexual orientation: A theory of homosexuality-heterosexuality. *Psychological Bulletin*, *101*, 233–258.
- Fischer, L. (2000). The Abel Screen: A non-intrusive alternative? In D. R. Laws, S. M. Hudson, & T. Ward (Eds.), *Remaking relapse prevention with sexual offenders: A sourcebook* (pp. 303–318). Thousand Oaks, CA: Sage.
- Freund, K. (1963). A laboratory method for diagnosing predominance of homo- or heteroerotic interest in the male. *Behaviour Research and Therapy*, *1*, 85–93.
- Freund, K., Watson, R., & Rienzo, D. (1989). Heterosexuality, homosexuality, and erotic age preference. *Journal of Sex Research*, *26*, 107–117.
- Geer, J. H., Lapour, K. J., & Jackson, S. R. (1992). The information processing approach to human sexuality. In N. Birbaumer & A. Ohman (Eds.), *The structure of emotion: Psychophysiological*,

- cognitive, and clinical aspects* (pp. 128–155). Toronto: Hogrefe-
Huber.
- Golde, J. A., Strassberg, D. S., & Turner, C. M. (2000). Psychophys-
iologic assessment of erectile response and its suppression as a
function of stimulus media and previous experience with plethys-
mography. *Journal of Sex Research, 37*, 53–59.
- Golden, C. (1996). What's in a name? Sexual self-identification among
women. In R. C. Savin-Williams & K. M. Cohen (Eds.), *The lives of
lesbians, gays, and bisexuals* (pp. 229–249). Orlando, FL: Harcourt
Brace College Publishers.
- Gress, C. L. Z. (2005). Viewing time measures and sexual interest:
Another piece of the puzzle. *Journal of Sexual Aggression, 11*,
117–125.
- Harris, G. T., Rice, M. E., Quinsey, V. L., & Chaplin, T. C. (1996).
Viewing time as a measure of sexual interest among child molesters
and normal heterosexual men. *Behaviour Research and Therapy*,
34, 389–394.
- Hoagland, S. L., & Penelope, J. (1991). *For lesbians only*. London:
Onlywoman Press.
- Israel, E. S., & Strassberg, D. S. (2008). Viewing time as an objective
measure of sexual interest in heterosexual men and women.
Archives of Sexual Behavior. doi:10.1007/s10508-007-9246-4.
- Kinnish, K. K., Strassberg, D. S., & Turner, C. M. (2005). Sex
differences in the flexibility of sexual orientation: A multidimen-
sional retrospective assessment. *Archives of Sexual Behavior, 33*,
173–183.
- Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behavior
in the human male*. Philadelphia: W. B. Saunders.
- Laan, E., & Everaerd, W. (1995). Habituation of female sexual arousal
to slides and film. *Archives of Sexual Behavior, 24*, 517–542.
- Laan, E., Everaerd, W., Van Der Velde, J., & Geer, J. H. (1995).
Determinants of subjective experiences of sexual arousal in
women: Feedback from genital arousal and erotic stimulus content.
Psychophysiology, 32, 444–451.
- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michaels, S. (1994).
*The social organization of sexuality: Sexual practices in the United
States*. Chicago: University of Chicago Press.
- Lawrence, A. A., Latty, E. M., Chivers, M. L., & Bailey, J. M. (2005).
Measurement of sexual arousal in postoperative male-to-female
transsexuals using vaginal photoplethysmography. *Archives of
Sexual Behavior, 34*, 135–145.
- Lippa, R. A. (2003). Are 2D:4D finger-length ratios related to sexual
orientation? Yes for men, no for women. *Journal of Personality
and Social Psychology, 85*, 179–188.
- Lippa, R. A. (2006). Is high sex drive associated with increased sexual
attraction to both sexes? *Psychological Science, 17*, 46–52.
- Lippa, R. A. (2007). The relation between sex drive and sexual attraction
to men and women: A cross-national study of heterosexual,
bisexual, and homosexual men and women. *Archives of Sexual
Behavior, 36*, 209–222.
- Mahoney, J. M., & Strassberg, D. S. (1991). Voluntary control of male
sexual arousal. *Archives of Sexual Behavior, 20*, 1–16.
- Morokoff, P. J. (1985). Effects of sex guilt, repression, sexual
“arousability”, and sexual experience on female sexual arousal
during erotica and fantasy. *Journal of Personality and Social
Psychology, 49*, 177–187.
- Newton, E. (1984). The mythic mannish lesbian: Radclyffe Hall and the
new woman. *Signs, 9*, 557–575.
- Pattatucci, A. M. L. (1998). Biopsychosocial interactions and the
development of sexual orientation. In C. J. Patterson & A. R.
D'Augelli (Eds.), *Lesbian, gay, and bisexual identities in families:
Psychological perspectives* (pp. 19–39). New York: Oxford
University Press.
- Quinsey, V. L., Ketsetzis, V., Earls, C., & Karamanoukian, A. (1996).
Viewing time as a measure of sexual interest. *Ethology and
Sociobiology, 17*, 341–354.
- Quinsey, V. L., Rice, M. E., Harris, G. T., & Reid, K. S. (1993). The
phylogenetic and ontogenetic development of sexual age prefer-
ences in males: Conceptual and measurement issues. In H. E.
Barbaree, W. L. Marshall, & S. M. Hudson (Eds.), *The juvenile sex
offender* (pp. 143–163). New York: Guilford Press.
- Rieger, G., Chivers, M. L., & Bailey, J. M. (2005). Sexual arousal
patterns of bisexual men. *Psychological Science, 16*, 579–584.
- Rust, P. C. (2002). Bisexuality: The state of the union. *Annual Review of
Sex Research, 13*, 180–240.
- Rust, P. C. (2003). Finding a sexual identity and community:
Therapeutic implications and cultural assumptions in scientific
models of coming out. In L. D. Garnets & D. C. Kimmel (Eds.),
*Psychological perspectives on lesbian, gay, and bisexual experi-
ences* (pp. 227–269). New York: Columbia University Press.
- Sakheim, D. K., Barlow, D. H., Beck, J. G., & Abrahamson, D. J. (1985).
A comparison of male heterosexual and male homosexual patterns
of sexual arousal. *Journal of Sex Research, 21*, 183–198.
- Savin-Williams, R. C., & Diamond, L. M. (2000). Sexual identity
trajectories among sexual-minority youths: Gender comparisons.
Archives of Sexual Behavior, 29, 607–627.
- Singer, B. (1984). Conceptualizing sexual arousal and attraction.
Journal of Sex Research, 20, 230–240.
- Stein, A. (1999). ‘Without contraries is no progression’: S/M, bi-nary
thinking, and the lesbian purity test. *Journal of Lesbian Studies, 3*,
45–59.
- Steinman, D. L., Wincze, J. P., Sakheim, D. K., Barlow, D. H., &
Mavissakalian, M. (1981). A comparison of male and female
patterns of sexual arousal. *Archives of Sexual Behavior, 10*,
529–547.
- Strassberg, D. S., & Lowe, K. (1995). Volunteer bias in sexuality
research. *Archives of Sexual Behavior, 24*, 369–382.
- Whisman, V. (1993). Who is a lesbian, anyway? In A. Stein (Ed.),
Sisters, experts, queers: Beyond the lesbian nation (pp. 47–60).
New York: Penguin.
- Wilson, G. D., & Rahman, Q. (2005). *Born gay? The psychobiology of
human sex orientation*. London: Peter Owen Publishers.
- Wilson, G. T., & Lawson, D. M. (1978). Expectancies, alcohol, and
sexual arousal in women. *Journal of Abnormal Psychology, 87*,
358–367.
- Wincze, J. P., & Qualls, C. B. (1984). A comparison of structural
patterns of sexual arousal in male and female homosexuals.
Archives of Sexual Behavior, 13, 361–370.
- Wolchik, S. A., Braver, S. L., & Jensen, K. (1985). Volunteer bias in
erotica research: Effects of intrusiveness of measure and sexual
background. *Archives of Sexual Behavior, 14*, 93–107.
- Wolchik, S. A., Spencer, S. L., & Iris, I. S. (1983). Volunteer bias in
research employing vaginal measures of sexual arousal. *Archives
of Sexual Behavior, 12*, 399–408.
- Wright, L. W., & Adams, H. E. (1994). Assessment of sexual preference
using a choice reaction time task. *Journal of Psychopathology and
Behavioral Assessment, 16*, 221–231.
- Wright, L. W., & Adams, H. E. (1999). The effects of stimuli that
vary in erotic content on cognitive processes. *Journal of Sex
Research, 36*, 145–151.
- Zamansky, H. S. (1956). A technique for assessing homosexual
tendencies. *Journal of Personality, 24*, 436–448.