Sexual Partner Age Preferences of Homosexual and Heterosexual Men and Women

Zebulon A. Silverthorne, B.A.,[1] **and Vernon L. Quinsey, Ph.D.**[1,2]

The sexual age preferences of 192 adults (equal groups of heterosexual men, heterosexual women, homosexual men, and homosexual women) were examined. Participants rated the sexual attractiveness of pictures of 15 male and 15 female faces arranged into five apparent average age categories ranging from 18 to 60 years. It was predicted that homosexual and heterosexual men would prefer younger partners of their preferred sex than would homosexual and heterosexual women and that age preference would not vary with participant age. Both predictions were supported, although homosexual women preferred older partners than expected. Results suggest that age and sex preferences develop independently.

INTRODUCTION

Perceptions of physical attractiveness show a remarkable consistency across cultures. Cunningham *et al*. (1995) examined perceptions of physical attractiveness across cultural groups. Different groups of men showed interrater correlations on female attractiveness ranging between .91 and .94. Exposure to Western media was not responsible for the high level of agreement; American men, rural Chinese men, and rural African men shared high levels of agreement ($r = .90$) on female attractiveness. Bernstein, Lin, and McCellan (1982) performed the same type of study with female respondents and found similar results. Women from various cultures agreed in their judgments of the physical attractiveness of men ($r = .93$) independently of culture or Western media exposure.

Korthase and Trenholme (1982), and Bradshaw *et al*. (1994) presented heterosexual men of various ages and cultures with pictures of women arranged into

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[1]Department of Psychology, Queen's University, Kingston, Ontario, Canada K7L 3N6.
[2]To whom correspondence should be addressed.

specific age categories. The men, independent of their age or culture, consistently perceived women aged 15–25 years to be most physically attractive. Alley (1993) performed the same study with heterosexual female respondents by presenting women of different cultures and ages with pictures of men categorically arranged by age. Alley found that the women, independent of their age or culture, perceived men aged 30–45 years to be of greatest physical attractiveness. However, Alley noted that heterosexual women's judgments were more variable than those of heterosexual men. The observed constancy of heterosexual attractiveness judgments and of heterosexual age preference patterns across cultures suggests that evolutionary forces might be responsible for shaping the physical and age-related characteristics that heterosexual men and women perceive as attractive in members of the opposite sex. Natural selection would have shaped heterosexual age preference, and consequent attractiveness judgments, via the effects that age preferences have on reproductive success (e.g., Quinsey and Lalumière, 1995). Evolution would favor men who favored female sexual partners of an age between maximum reproductive value and maximum fertility (Cunningham *et al*., 1979). Other things being equal, evolution would likewise favor women who sought out men who possessed the social and material resources required to support children. To the extent that male social status was correlated with age in ancestral environments, it would be expected that women would be selected to prefer somewhat older men (Townsend and Wasserman, 1997).

Jankowiak *et al*. (1992) offer an evolutionary explanation for the greater observed variability in heterosexual female age preferences compared to heterosexual male age preferences. They argue that some of the cues signaling the potential of a male as a reproductive partner are not visible physical characteristics; the male potential in child-rearing rests more in generosity, social position, and wealth than in physical appearance. Heterosexual men depend more on visual cues of a female's health and youth to signal the reproductive value of a female partner (Quinsey and Lalumière, 1995). Because the cues signaling youth and health are physically similar across cultures, there is very little variance in heterosexual men's perceptions of physical attractiveness.

Although evolutionary psychology has created a theory to explain heterosexual age preference patterns, including the increased variability of heterosexual female judgments, a more complex explanation involving proximal causes appears to be required for the explanation of homosexual sexual age preferences. According to the androgen organizational hypothesis of male homosexuality, the brains of homosexual men are only partially masculinized during critical stages of fetal development (Ellis and Ames, 1987; Ellis *et al*., 1988). Given that the androgen hypothesis predicts that homosexual men will develop a sexual gender preference similar to heterosexual women, it is surprising that previous research indicates that the sexual behavior and age preferences of homosexual men are more similar to heterosexual men than heterosexual women. Homosexual men report more casual

sex than heterosexual men, who in turn report more casual sex than heterosexual women (Bailey *et al*., 1994), indicating that, in certain respects, homosexual male courtship patterns are more similar to those of heterosexual men than heterosexual women.

Several past studies have examined the age preference of homosexual men compared to heterosexual men and women. Freund *et al*. (1973) presented adult heterosexual and homosexual men with pictures of nude men and women of various ages and measured penile tumescence changes. Homosexual and heterosexual men were similar in their arousal to young-adult-age pictures, but opposite in their preferred sex of partner. Bailey and co-workers' (1994) survey found that homosexual men were identical to heterosexual men in reporting a preference for young sexual partners. Jankowiak *et al*. (1992) presented groups of homosexual men, heterosexual men, and heterosexual women with visual pictures of men and women aged "university to middle-age." The researchers found that homosexual men and heterosexual men both perceived the university-aged pictures to be of greatest attractiveness, whereas the heterosexual women perceived the middle-aged pictures to be of greatest attractiveness. However, both of these studies found that the homosexual responses showed the increased variability that was more characteristic of heterosexual women than heterosexual men.

That homosexual men are similar to heterosexual women in their preference for male sexual partners, yet at the same time similar to heterosexual men in sexual behavior and age preference, strongly suggests sexual preferences are modular (Quinsey and Lalumière, 1995). This modularity means that sexual gender preference, preferred courtship behavior, and age preference, although all components of sexuality, may develop during different stages of fetal growth or be subject to different hormonal influences. The observed modularity of sexual preference could indicate either that sexual behavior and age preference are developed during fetal growth prior to the hormonal failure theorized by the androgen hypothesis or that sexual behavior and age preference are more resistant to lack of *in utero* androgens than sexual gender preference (Lalumière *et al*., 1998; Quinsey and Lalumière, 1995).

There are, however, limitations to the androgen hypothesis and previous studies of homosexual age preferences. It is unclear whether the androgen hypothesis can account for female homosexuality (Blanchard and Klassen, 1997). Further, there is a paucity of past research that examines homosexual female sexual behavior or age preferences, so it is as yet unclear if lesbian sexuality follows the modular sexuality observed in homosexual men.

Studies of homosexual male age preference are also limited but in a different manner. The Freund *et al*. (1973) study was possibly compromised because the homosexual men used in the study were selected to be sexually attracted to adult, but not teenaged, males. The Bailey *et al*. (1994) study was limited in that it did not present participants with objective stimuli but simply asked participants to

report what age of sexual partner they preferred. Although the Jankowiak *et al.* (1992) study did present participants with controlled visual stimuli, this study was limited in two ways; the homosexual male participants had a limited age range of "middle-aged professionals" and the stimuli presented to participants were also of a limited age range ("university to middle-aged"). The current study was intended to expand Jankowiak and co-workers' study by recruiting a wider age range of homosexual male participants and by categorically arranging the stimuli into specific age groups between 15 and 50 years of age. An interesting result of both Jankowiak *et al.* (1992) and Bailey *et al.* (1994) was an increased amount of variance in homosexual male responses compared to heterosexual male responses. However, neither group of researchers examined the increased variance to determine if there might have been two types of homosexual male responses (one group preferring young males and another group preferring older males). The final limitation of all three studies is that neither the Jankowiak *et al.* (1992) study, the Bailey *et al.* (1994) study, nor the Freund *et al.* (1973) study examined homosexual female age preference with visual stimuli. The current study was designed to avoid this limitation by concurrently examining homosexual female age preference.

The current study systematically examined the age preferences of heterosexual women, heterosexual men, homosexual men, and homosexual women. This study presented participants with pictures of human faces; the stimuli were arranged into five apparent age categories ranging from 18 to 60 years. It was predicted that homosexual and heterosexual men would prefer younger partners of their preferred sex than would homosexual and heterosexual women and that age preference would not vary with participant age. It was expected that heterosexual men, regardless of their age, would find 20- to 25-year-old women to be the most sexually attractive and that heterosexual women would rate 30- to 40-year-old men to be the most sexually attractive.

METHOD

Participants

A total of 192 people participated in this study (equal groups of heterosexual men, heterosexual women, homosexual men, and homosexual women). Homosexual participants were recruited from weekly meetings of a metropolitan Bowling Society. Heterosexual participants were recruited from two coffee shops in Kingston, Ontario. Mean participant age was 33.62 years ($SD = 9.07$). Heterosexual men averaged 33.14 years of age ($SD = 9.91$, range 18–52). Heterosexual women averaged 34.43 years of age ($SD = 8.55$, range 20–50). Homosexual men averaged 33.24 years of age ($SD = 9.46$, range 18–50). Homosexual women averaged 33.44 years of age ($SD = 8.36$, range 21–52). Respondents were assigned

to one of the four sex-orientation groups on the basis of their stated sexual orientation. No financial inducement was offered to encourage participation. Four people refused to participate (1 homosexual male and 3 homosexual women).

Materials

The Kinsey Scale (Kinsey *et al*., 1953) was used to assess sexual orientation. The stimulus set consisted of 30 facial pictures, 15 pictures of female faces, and 15 pictures of male faces. The faces of each sex category were constructed with 3 pictures from 5 apparent age groups; 15 years, 20 years, 30 years, 40 years, and 50 years of age. The stimulus set therefore consisted of 15 male faces (3 from each of the 5 age categories) and 15 female faces (3 from each of the 5 age categories).

To ensure that the researchers had assigned particular facial pictures to the correct age category a homosexual man, homosexual woman, heterosexual man, and heterosexual woman were recruited for calculations of interrater agreement. These raters were presented with all of the stimuli used in the current study and asked to write how old, in 5-year intervals, they believed the face to be. The raters were instructed that the pictures varied between 15 and 50 years of age. The four raters showed high agreement in categorizing the faces (the lowest of the six interrater correlations was .95). However, because the categorization of the faces was based upon one researchers' opinion (Z.A.S.), a further examination of the apparent ages of the stimuli was conducted. Three heterosexual women and three heterosexual men, of average age 39 and 38 years, respectively, independently estimated the age of each face without knowledge of its prior categorization. The average interrater agreement was .93. The average age estimates of the five male face age categories were 18, 23, 32, 44, and 58 years; the average age estimates of the five female face age categories were 19, 25, 28, 42, and 60 years. These average ages were employed in all subsequent analyses.

The stimuli were organized into three separate sets, identified as A, B, and C. The study used a double-randomization process. One picture of each sex at each age category was randomly assigned to an order, such that each order consisted of 10 pictures (1 picture of each age and sex). The order of the pictures of within each set was then randomized with the use of a random number table. To prevent order effects, the three stimulus sets were then counterbalanced across participants by use of an all-possible-combinations matrix, creating six possible combinations of the three stimuli sets. Participant assignment to a particular order was determined by order of recruitment within each of the four groups. For example, the first eight homosexual male participants were assigned to order ABC, the second eight participants were assigned to ACB, and so forth.

Participants were asked to indicate how sexually attractive a particular face was to them by circling the appropriate number on a 7-point Likert scale; a score of 0 indicated that the participant perceived the face as very sexually unattractive

and a score of 7 indicated that the participant perceived the face as very sexually attractive (Quinsey *et al.*, 1993).

Procedure

Upon recruitment, all participants completed a standard consent form. The consent form assured complete confidentiality and informed participants that "this research attempts to compare what homosexuals and heterosexuals find attractive in human faces." Participants were then asked to give their age and sex and to complete the Kinsey scale. Participants were then presented, in the appropriate balanced order, the three stimulus sets. Each picture was presented until the participant responded by circling the appropriate point on the Likert scale, and then the next picture was shown until the set was completed. The participant then moved on to the next stimulus set. Following a completed viewing and response to all three stimulus sets, the participants were given a debriefing form that explained the rationale of the study, the predictions of the study, and a list of related articles. All participants were thanked for their participation.

RESULTS

The average ratings are shown in Fig. 1. A factorial ANOVA indicated that sex-orientation groups significantly differed in their responses to male and female facial pictures [$F(3,187) = 622.85$, $p < .001$]. In the next ANOVA, the between-subject factors were Participant Sex and Participant Orientation (heterosexual or homosexual) and the within-subject factors were Stimulus Sex and Stimulus Age. All four of these variables had significant ($p < .001$) main effects. Significant interactions indicated that there were different age and sex facial preferences among the four sex-orientation groups and differences in the response to facial pictures of different ages within each of the sex-orientation groups.

The third set of analyses performed consisted of a series of eight trend analyses intended to provide an more in depth examination of the age preferences of each of the four sex-orientation groups. The eight sets of data were constructed by decomposing the responses of the four sex-orientation groups into responses to male faces and responses to female faces. The trend analyses of a sex-orientation groups' nonpreferred group (i.e., heterosexual male responses to male faces) yielded no significant trends, as expected. The trend analyses of sex-orientation groups' preferred groups did show significant trends.

Heterosexual male responses to female faces indicated a quadratic trend [$F(1,47) = 201.49$, $p < .001$]; the greatest mean response was to 25-year-old and the lowest to 58-year-old female faces. Heterosexual female responses to male faces showed a quadratic trend [$F(1,47) = 119.06$, $p < .001$]; the greatest response
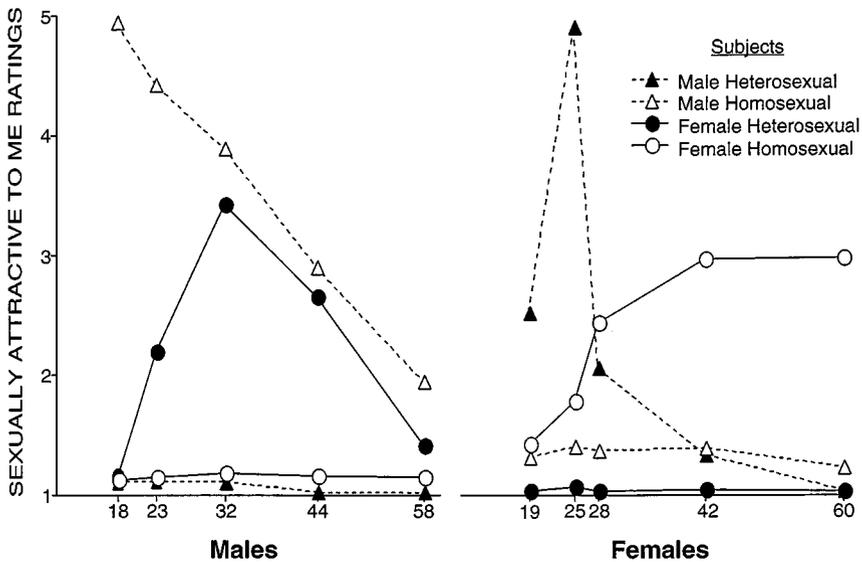
Fig. 1. Mean sexual attractiveness ratings as a function of rater sex, rater sexual orientation, and sex of stimulus person.

was to 32-year-old and the lowest to 18-year-old male faces. Homosexual male responses to male faces followed a linear trend [$F(1,47) = 117.57$, $p < .001$]; the greatest response was to 18-year-old male faces and the lowest to 58-year-old male faces. Homosexual female responses to female faces also followed a linear trend [$F(1,47) = 60.39$, $p < .001$]; the highest responses were to 42- to 60-year-old and the lowest to 19-year-old female faces.

The fourth and final set of analyses was designed to determine if participant age may have interacted with stimulus age preference. The only significant correlation between participant age and preferred age category within participants' preferred sex occurred among male homosexuals ($r = .29$, $p < .05$), although all but 9 of the 48 homosexual men preferred the youngest two male age categories. The correlation between participant age and stimulus age preference was of a similar magnitude and approached significance among female heterosexuals ($r = .27$, $p < .06$).

DISCUSSION

Heterosexual men showed a strong sexual preference for young adult (twentyish) female faces and heterosexual women showed a strong sexual preference for somewhat older (thirtyish) male faces, as expected from past studies of heterosexual

age preferences. The prediction that homosexual and heterosexual men would prefer younger partners of their preferred sex than would homosexual and heterosexual women was confirmed. Also as predicted, participants' age preferences were weakly or unrelated to their own age. Men who preferred male partners preferred younger partners than those who preferred female partners. Women who preferred female partners preferred older partners than those who preferred male partners. Thus, sexual age and gender preferences can develop independently of each other and independently of biological sex, supporting the view that sexual preferences are modular (Quinsey and Lalumière, 1995).

The preferred partner age of female homosexuals was considerably older than expected but the use of even older stimuli may have permitted the detection of a quadratic effect. One interpretation of these data is that homosexuality is associated with a downward shift in age preference among men (i.e., compared to heterosexual men) and with an upward shift among women (compared to heterosexual women).

One line of future inquiry suggested by the present results is the determination of the relationship of sexual partner age preference and the masculine–feminine (butch-fem) dimension among both homosexual men and women. Based on the findings reported here, more masculine homosexuals of both sexes would be expected to prefer younger same-sex partners than would more feminine homosexuals. It is also possible that more masculine heterosexuals of both sexes would prefer younger-aged opposite-sexed partners than more feminine heterosexuals.

Although these self-reported ratings of sexual interest were generally in accord with prediction, they may nevertheless have been affected by subjects' embarrassment, political conviction, or legal concerns. Phallometric assessment can partially circumvent problems of dissimulation for male subjects (Harris *et al*., 1999; Freund and Watson, 1991; Freund *et al*., 1988; Quinsey and Chaplin, 1988) and possibly the use of vaginal pulse amplitude could accomplish the same with female subjects (Laan and Everaerd, 1995; Letourneau and O'Donohue, 1997). On the other hand, covertly measured viewing time offers a simpler and more convenient, if somewhat less accurate, method of more directly measuring sexual preferences and does so using the same metric for men and women (Harris *et al*., 1996; Quinsey *et al*., 1996).

The difference between male heterosexuals' ratings of 25-year-old female faces and those of 18 and 28 year olds was in the expected direction but much larger than expected. The size of this difference suggests that the 25-year-old female faces may have been artifactually attractive in that more attractive individuals may have been sampled by chance in the 25-year-old category. Future research could eliminate this possible confounding of age category and attractiveness either by using the same individuals photographed at different ages or by employing large random samples of faces from different age categories. Although age category–attractiveness confounding could affect the shape of the age preference function, it would not be expected to affect the between-preference group differences.

ACKNOWLEDGMENTS

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