

Schemas, Sexuality, and Romantic Attachment

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One's self-views are powerful regulators of both cognitive processing and behavioral responding. *Sexual self-schemas* are cognitive generalizations about sexual aspects of the self. The bivariate sexual self-schema model, which posits independent effects of positive and negative components of women's sexual self-views, was tested. Three hundred eighteen female undergraduates completed anonymous questionnaires, including the Sexual Self-Schema Scale and assessments of sexual responses and romantic attachment patterns. Results extended knowledge of positive-negative schema group contrasts and distinguished the response patterns of the aschematic and co-schematic groups. As predicted, aschematics reported low levels of sexual desire, arousal, and anxiety, and weak romantic attachments, whereas co-schematics endorsed conflicting positive and negative responses to sexual-romantic cues. In addition, path analyses supported the bivariate model. Finally, findings are related to theories of attachment representations within the cognitive hierarchy of the self.

Research suggests that people's self-views act as a lens through which they perceive, organize, and interpret self-relevant information (Kelly, 1955; Markus, 1977; Markus & Zajonc, 1985). Well-articulated self-views, or self-schemas, influence how people process—and in turn how they respond to—relevant social cues. Following this social cognitive premise, we hypothesized that one's sexual self-views function as important regulators of sexual cognition, behavior, and affect.

Sexual self-schemas are defined as cognitive views about sexual aspects of the self (Andersen & Cyranowski, 1994). These views are derived from past experience, manifest in current sexual cognition, and guide sexual behavior. If well articulated and accessible, one's sexual self-schemas influence both cognitive processing and affect regulation in response to sexually relevant information. In addition to these *intrapersonal processes*, strong self-views may also guide *interpersonal processes*, including social perceptions and interactions. It follows, then, that one's sexual self-views should influence perceptual and behavioral responses within sexual situations and relationships.

Previous studies (Andersen & Cyranowski, 1994; Cyranowski, 1993) have shown that there are systematic differences among women's views of the sexual self and that these sexual self-views can be measured reliably. Pursuant to Galton's (1884) lexical hypothesis (that important individual differences in human interactions will be encoded as single terms in one's

language), the sexual self-schema construct has been operationalized by assessing women's normative beliefs about the important personality dispositions of a "sexual woman." As tapped by the Sexual Self-Schema Scale, an unobtrusive trait-adjective rating scale, women's sexual self-views include two positive aspects—romantic/passionate and open/direct self-views—and one negative aspect—embarrassment or conservatism, which acts as a deterrent to sexual expression (Andersen & Cyranowski, 1994).

THE BIPOLAR MODEL: DIFFERENTIATING NEGATIVE VERSUS POSITIVE SEXUAL SELF-SCHEMA GROUPS

Previously, the sexual self-schema construct has been studied as a unidimensional phenomenon. Specifically, participants' ratings on each of the three factors have been linearly combined to obtain a single cumulative schema score. Using this model, research has differentiated the response patterns of women who score on the extreme ends of a single bipolar continuum from those who espouse strong and consistent negative versus positive views of their sexual selves (see Figure 1A for a graphic representation of the bipolar schema model).

When these groups were contrasted, positive schema scorers evaluated sexual behaviors more positively and reported higher levels of sexual arousal than their negative schema counterparts (Andersen & Cyranowski, 1994). Behaviorally, positive schema women reported a wider range of lifetime sexual experiences, a greater frequency of current sexual activities, and more sexual partners than did negative schema scorers. Finally, sexual self-schemas provided self-scripts for future behaviors, as high-scoring women anticipated having more sexual partners in the future than their low-scoring counterparts. In fact, schema scores prospectively predicted differences in sexual activities between positive and negative schema groups over a 2-month period (Andersen & Cyranowski, 1994).

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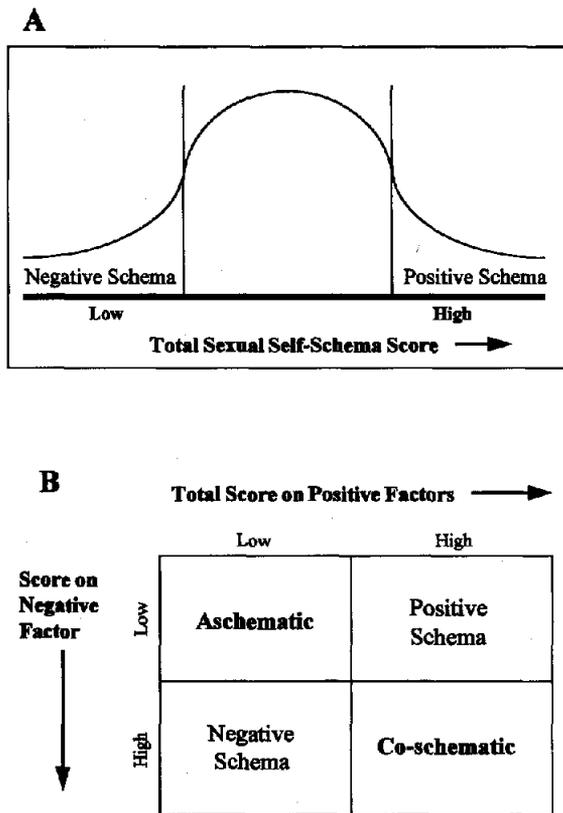


Figure 1. Sexual self-schema models. A: The bipolar model. B: The bivariate model.

THE BIVARIATE MODEL: ASCHEMATIC AND CO-SCHEMATIC HYPOTHESES

Although the bipolar conceptualization has proved powerful in the characterization of schemas of opposing valence, we hypothesized that a *bivariate model of sexual self-schema*, in which positive and negative schema dimensions are assessed as independent constructs, might show both conceptual and methodological advantages (Andersen & Cyranowski, 1994; see Figure 1B for a graphic representation of the bivariate schema model). Conceptually, such a model would allow both positive and negative dimensions to have some functional independence, be opposing in their effects on behavior, and provide for the possibility of effects attributable to differential levels of activation (Caccioppo & Berntson, 1994). Methodologically, a bivariate model would allow for the clarification of the sexual self-views of women who fall in the middle of the bipolar schema distribution.

The positive and negative schema groups defined within the proposed bivariate model should be similar to the groups defined via extreme scores on the bipolar continuum. In addition, the bivariate schema model identifies two other schema topologies (see Figure 1B). We defined aschematic women as those who hold neither strong positive nor strong negative views of their sexuality. These individuals lack an articulated, coherent, or accessible schematic framework with which to guide relevant

perceptions, cognitions, and behaviors. We hypothesized that aschematic women would not experience sexual encounters as negative, difficult, or anxiety provoking and would not take steps to avoid sexually relevant cues. Neither, however, would they seek out sexual situations. Hence, the sexual behaviors of these individuals would likely be driven by situational variables rather than by their personal schematic representations.

The final topology is that of the co-schematic group: individuals with a schematic representation of their sexuality that includes both positive and negative aspects. We theorized that the conflicting self-views of these women would be disruptive for them, as manifested in affective and behavioral approach-avoidance responses to sexual cues. As such, co-schematic women may display moderately restricted levels of sexual behavior (which appear similar to those of the aschematic women), yet they should report larger discrepancies in their sexual affects. Specifically, we hypothesized that co-schematic women would endorse positive sexual affects, such as desire and arousal, as well as negative affects, such as sexual anxiety.

FOCUS OF THIS STUDY

In this study we compared and contrasted the response patterns of the four groups defined by the bivariate sexual self-schema model. Specifically, we focused on three levels of schema group comparisons. To begin, we replicated the pattern of positive versus negative group contrasts previously obtained with the bipolar schema model. Our second level of analysis differentiated the response patterns of the other hypothesized schema groups—the aschematic and co-schematic women—from those of the previously defined positive and negative schema groups. Finally, we differentiated the response patterns of the aschematic versus co-schematic groups. These last group contrasts provided a powerful indicator of the incremental validity of the bivariate schema model.

We first examined these group comparisons across multiple sexuality assessment points. We included measures of past and current sexual behaviors. In addition, convergent measures of each stage of the sexual response cycle (i.e., sexual desire, arousal, orgasm and resolution) were tapped, as was the experience of sexual anxiety. Whereas in our previous research (Andersen & Cyranowski, 1994; Cyranowski, 1993) we did not examine the role of sexual anxiety, we felt this was essential to differentiate the response patterns of the aschematic and co-schematic groups. Finally, we included self-evaluative measures of one's sexuality and sexual skills. We then constructed and tested a model of the bivariate schema conceptualization. Using a path-analytic approach, we developed a cognitive-affective mediation model to examine the independent effects of women's positive and negative sexual self-views across alternative sexual evaluation outcomes.

After confirming the utility of the bivariate schema model, we then extended this model to the domain of romantic attachments. Attachment theory suggests that affective bonds function to maintain people's relatedness to others and hence represent a fundamental survival need. Bowlby (1969, 1973, 1980) argued that attachment patterns first develop within early infant-caregiver relationships and that differences in the nature and quality of these early interactions may result in the development of

alternative "internal working models," or schemas regarding the self and self-other interactions. These mental models are believed to organize cognitions, affects, and behaviors (i.e., attachment style constellations) in later relationships (Bowlby, 1973; Hazan & Shaver, 1987; Mikulincer, 1995). In what has become a seminal work, Hazan and Shaver translated infant-caregiver attachment styles (as developed from observations of the strange situation; Ainsworth, Blehar, Waters, & Wall, 1978) into descriptions of adult romantic attachment patterns. Furthermore, subsequent factor-analytic research has delineated two dimensions of adult romantic attachments that have been identified as (a) avoidant versus secure (or avoidance of intimacy) and (b) anxious versus nonanxious (or anxiety about abandonment; see Griffin & Bartholomew, 1994; Simpson, 1990).

A primary difference between early infant-caregiver attachments and adult romantic attachments is the explicitly sexual nature of adult romantic relationships. Yet, surprisingly little research has examined issues of sexuality relative to broader patterns of adult romantic attachments, although adult romantic attachment research has focused on issues such as attitudes about romantic love (Hazan & Shaver, 1987); partner pairing (Kirkpatrick & Davis, 1994); romantic jealousy (Sharpsteen & Kirkpatrick, 1997); and relationship satisfaction, commitment, and stability over time (Collins & Read, 1990; Feeney & Noller, 1990; Kirkpatrick & Davis, 1994; Kirkpatrick & Hazan, 1994; Simpson, 1990). Thus, we explored the important relationship between women's sexual self-schemas and their romantic attachment patterns. We hypothesized that women's sexual self-views do not operate in a "sexual vacuum"; rather, they relate to broader patterns of romantic or emotional relationships. In line with the bivariate schema model, we hypothesized that women's positive and negative sexual self-views may tap elements that respectively foster or hinder the development of emotional attachments as well as sexual ones. Specifically, we hypothesized that the romantic/open components of the positive sexual self-schema dimension would relate to a broader pattern of seeking romantic relations to foster emotional connection, which may prove to be an opposing force of the avoidant (or avoidance of intimacy) attachment dimension. Also, the embarrassed/self-conscious components of the negative sexual self-schema dimension may relate to a larger pattern of questioning one's value as a partner and fearing romantic rejection, an element of relevance to the anxious (or anxiety about abandonment) attachment dimension.

METHOD

Participants, Design, and Procedures

The participants were 318 female undergraduates at the Ohio State University enrolled in introductory psychology classes. Participants were informed of the nature of the study and the anonymity of their responses before participation. They received course credit for experiment participation.

Measures

Sexual Self-Schema

Developed in a trait-adjective rating format, the Sexual Self-Schema Scale represents an unobtrusive measure of sexual cognition, or sexual

self-views. Factor analyses indicated that women's sexual self-views are composed of three factors: two positive aspects (romantic/passionate and open/direct self-views) and a negative aspect (embarrassment/conservatism). Participants rated 50 trait adjectives (26 scored and 24 fillers) on a Likert scale ranging from 0 (*not at all descriptive of me*) to 6 (*very much descriptive of me*). Internal consistency (Cronbach's $\alpha = .82$) and 2-week test-retest reliability ($r = .91$) estimates were high (Andersen & Cyranowski, 1994; see the Appendix for the women's form of the Sexual Self-Schema Scale).

Sexuality Measures

Measures were selected to tap conceptually relevant sexual domains (see Andersen & Cyranowski, 1995). Specifically, we used converging measures of sexual behaviors, sexual responses, and sexual evaluations (see Figure 2 for sexuality constructs and measures).

Sexual Behaviors

The Sexual Experience scale (SES) from the Derogatis Sexual Functioning Inventory (DSFI; Derogatis & Melisaratos, 1979) was completed by participants in two formats for measures of lifetime and current (past 30-day) sexual activities. The 24 SES items assess preliminary and intimate foreplay, anal activity, intercourse, and masturbation. The lifetime occurrence of each activity was rated either 0 (*never experienced in my life*) or 1 (*have experienced at least once*). Current (the past 30 days) frequency was rated on a scale ranging from 0 (*this activity did not occur*) to 9 (*activity occurred two or more times a day*). The SES has shown 1-month test-retest reliabilities of .72 and internal consistencies (Kuder-Richardson) of .84-.88 (Andersen, Anderson, & deProse, 1989; Andersen & LeGrand, 1991).

The Sexual Avoidance scale from the Sexual Aversion Scale (SAS; Katz, Gipson, Kearl, & Kriskovich, 1989; Katz, Gipson, & Turner, 1992) consists of 10 statements regarding sexual avoidance behaviors or attitudes. Items were rated on a 4-point Likert scale ranging from 0 (*not at all like me*) to 3 (*a lot like me*). Reliability data include estimates of .85 for internal consistency (Cronbach's alpha) and .86-.89 for 4-week test-retest reliability (Katz et al., 1989, 1992).

The Sexual Response Cycle

Current models of sexual responding, drawing from both Masters and Johnson (1966, 1970) and Kaplan (1977, 1979), define the sexual response cycle in terms of sexual desire, sexual arousal, orgasm, and resolution. The Sexual Responsiveness Scale (SRS; Andersen, Anderson, & deProse, 1989) is a self-report measure designed to assess each of these four stages. Participants' responses to the 24-item scale were submitted to a principal-axis factor analysis with an oblique (Harris-Kaiser) rotation. Three main factors emerged: Sexual Desire, Arousal Difficulties, and Orgasm/Resolution. For convergent validity, other phase-specific measures of sexual desire and arousal also were included. Finally, measures of sexual anxiety were included because theoretical models of arousal often implicate anxiety as a key to arousal difficulties and sexual dysfunction (e.g., see Barlow, 1986; Beck, 1986).

Sexual desire. The Sexual Desire subscale from the SRS (Andersen, Anderson, & deProse, 1989) was used to assess sexual desire. Seven items from the factor analysis of the SRS were combined to form the Sexual Desire subscale. Items included "How often do you have a desire for sex?" and "How often do you 'say no' or avoid having sex?" and were rated on a 5-point Likert scale ranging from 0 (*never*) to 4 (*always*). Internal consistency was .66 (Cronbach's alpha).

The Sexual Preoccupation scale from the Sexuality Scale (Snell & Papini, 1989) was used to measure sexual preoccupation, or the "persistent tendency to become absorbed in, obsessed with, and engrossed in sexual cognitions and behaviors" (Snell & Papini, 1989, p. 257). This

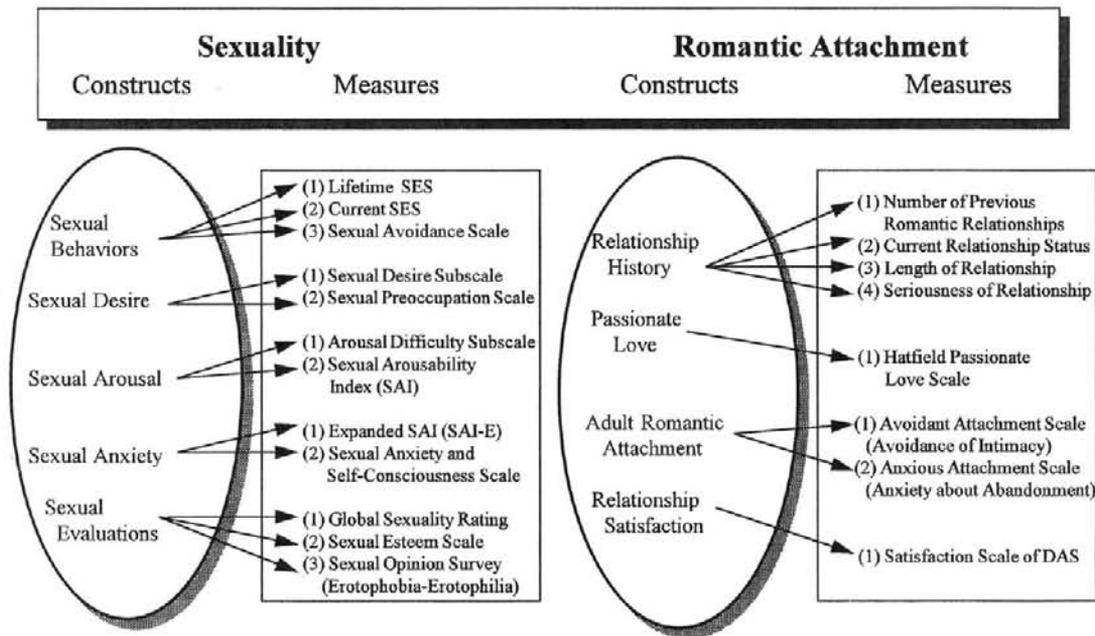


Figure 2. Sexuality and romantic attachment constructs and measures. SES = Sexual Experience scale; DAS = Dyadic Adjustment Scale.

10-item subscale included items such as "I think about sex all of the time" and "I hardly ever fantasize about having sex," rated on a 5-point Likert scale ranging from 0 (*disagree*) to 4 (*agree*). Reliability data include estimates of .88-.91 for internal consistency (Cronbach's alphas obtained with female samples) and .70-.76 for 4-week test-retest reliabilities (Snell, Fisher, & Schuh, 1992; Snell & Papini, 1989).

Sexual arousal. The Arousal Difficulties subscale from the SRS (Andersen, Anderson, & deProse, 1989) was used to assess sexual arousal difficulties. Factor analysis revealed eight items from the SRS characterizing arousal difficulties. Items included "How often does your vagina feel "too tight" for penetration?" and "How often do you feel pain or discomfort with penetration or intercourse?" which participants rated on a 5-point Likert scale ranging from 0 (*never*) to 4 (*always*). Internal consistency was .68 (Cronbach's alpha).

The Sexual Arousability Index (SAI; Hoon, Hoon, & Wincze, 1976) assesses women's experienced or predicted arousal across 28 sexual activities, including erotica and masturbation, body caressing, seductive activities, oral-genital and genital stimulation, and intercourse (Andersen, Broffitt, Karlsson, & Turnquist, 1989). Sexual arousal was rated on a 7-point Likert scale ranging from 0 (*unpleasant/adverse effect*) to 6 (*extremely arousing*). The SAI has obtained Kuder-Richardson reliability estimates ranging from .92 to .96 and 4-month test-retest reliabilities ranging from .74 to .90 (Andersen, Broffitt, et al., 1989).

Sexual anxiety. The Expanded SAI (SAI-E; Chambless & Lifshitz, 1984; Hoon, 1978), a modified version of the SAI, was used to assess sexual anxiety, defined as "feelings of nervousness, tension, uneasiness, or worry. These feelings are unpleasant." The items (which parallel the 28 sexual activities on the SAI) were rated on a 7-point Likert scale ranging from 0 (*pleasant/relaxing*) to 6 (*extremely anxiety-provoking*). Internal consistency estimates include Spearman-Brown split-half reliability coefficients of .94 for the SAI-E. Moreover, validity studies have found the SAI Arousal and Anxiety scales to be uncorrelated, and Anxiety scale scores have been negatively correlated with reported orgasmic frequency (Chambless & Lifshitz, 1984).

The Sexual Anxiety and Self-Consciousness scale from the SAS (Katz

et al., 1989, 1992) is a six-item subscale that includes items such as "I would like to feel more relaxed in sexual situations" and "I worry a lot about sex." Items were rated on a 4-point Likert scale ranging from 0 (*not at all like me*) to 3 (*a lot like me*). Reliability data include estimates of .85 for internal consistency (Cronbach's alpha) and .86-.89 for 4-week test-retest reliability (Katz et al., 1992).

Orgasm/resolution. The Orgasm/Resolution subscale from the SRS (Andersen, Anderson, & deProse, 1989) was used to measure orgasm and resolution. Factor analysis revealed eight items from the SRS representing the combined stages of orgasm and resolution. Items included "How often are you able to reach climax (come)?" and "How often do you feel satisfied after sexual activity?" and were rated on a 5-point Likert scale ranging from 0 (*never*) to 4 (*always*). Internal consistency was .86 (Cronbach's alpha).

Sexual Self-Evaluation

Global sexuality ratings were subjective ratings of women's sexuality, as assessed with the question, "Compared to other women about your age, how would you rate yourself as a sexual woman?" Responses were scored on a 9-point Likert scale ranging from 0 (*I am much less sexual than most women my age*) to 8 (*I am much more sexual than most women my age*).

The 10-item Sexual Esteem scale from the Sexuality Scale (Snell & Papini, 1989) measures one's sexual esteem, or positive evaluations regarding one's sexual ability or activity. Items included "I am a good sexual partner" and "I would rate my sexual skill quite highly" and were rated on a 5-point Likert scale ranging from 0 (*disagree*) to 4 (*agree*). Reliability estimates include internal consistencies of .92 (Cronbach's alpha) and 4-week test-retest reliabilities ranging from .69 to .74 (Snell et al., 1992; Snell & Papini, 1989).

The Sexual Opinion Survey (SOS; Fisher, White, Byrne, & Kelly, 1988) was administered as a measure of erotophobia-erotophilia, or "the disposition to respond to sexual cues along a negative-positive dimension of affect and evaluation" (Fisher et al., 1988, p. 123). Items

reflect women's evaluations of 21 sexual practices or experiences, as rated on a 7-point Likert scale ranging from 0 (*strongly disagree*) to 6 (*strongly agree*). The SOS has good internal consistency and reliability, with Cronbach's alpha coefficients in the .85-.90 range and 2-month test-retest reliabilities in the .80 range (Fisher et al., 1988).

Romantic Attachment Measures

Measures were included to examine participants' cognitive, behavioral, and affective responses to romantic relationships. This consisted of past relationship histories as well as the women's experience of romantic relationships, as assessed by their self-reports of passionate love, relationship satisfaction, and the romantic attachment dimensions of avoidance of intimacy and anxiety about abandonment (see Figure 2 for romantic attachment constructs and measures).

Relationship History

Participants completed a series of questions and ratings of romantic relationships regarding (a) the number of previous romantic relationships, (b) current relationship status, (c) length of current relationship, and (d) seriousness of current relationship. Appropriate response scales were provided for each item.

Passionate Love

The Passionate Love Scale (PLS Short Form; Hatfield & Sprecher, 1986) is designed to measure one's tendency to become passionate or obsessive in love relationships. Participants rated 15 statements regarding someone they love or loved passionately, such as "I would feel despair if ___ left me" or "Sometimes I feel I can't control my thoughts; they are obsessively on ___." Items were rated on a 9-point scale ranging from 0 (*not at all true*) to 8 (*extremely true*). The PLS is factorally unidimensional, obtains internal consistency estimates of .91 (Cronbach's alpha), and is uncorrelated with social desirability ($r = .09$; Hatfield & Sprecher, 1986).

Romantic Attachment Styles

The 13-item Adult Romantic Attachment Scale (Simpson, 1990; Simpson, Rholes, & Nelligan, 1992) was derived from Hazan and Shaver's (1987) reformulation of early infant-caregiver attachment styles (Ainsworth et al., 1978). Factor analyses indicated two attachment dimensions: (a) avoidant versus secure (or avoidance of intimacy) and (b) anxious versus nonanxious (or anxiety about abandonment). The avoidant attachment index includes eight items such as "I find it difficult to trust others completely" and "I'm nervous whenever anyone gets too close to me." The anxious attachment index includes five items, such as "I often worry that my partner(s) don't really love me" and "I often want to merge completely with others, and this desire sometimes scares them away." Items are rated on a 7-point Likert scale ranging from 0 (*strongly disagree*) to 6 (*strongly agree*). Previous research has obtained Cronbach's alphas of .81 and .61 for the avoidant and anxious attachment dimensions, respectively (Simpson et al., 1992).

Dyadic Satisfaction

For participants currently involved in romantic relationships, relationship satisfaction was assessed using the 10-item Dyadic Satisfaction subscale of the Dyadic Adjustment Scale (DAS; Spanier, 1976). Items included "In general, how often do you think things between you and your partner are going well?" and "Do you ever regret that you are partnered (dating/living together/married)?" This subscale has obtained internal consistency estimates of .94 (Cronbach's alpha) and exhibits both content and criterion-related validity (Spanier, 1976).

RESULTS AND DISCUSSION

Participant Demographics

The participants' mean age was 20 years ($SD = 2.42$ years), and they had a mean education level of 13.28 years (between a college freshman and sophomore). They were predominantly White (78.6%; 9.4% were African American, 6.3% were Asian, and 2.5% were Hispanic) and unmarried (96%). Ninety-five percent of the participants reported a predominantly or exclusively heterosexual orientation.

Sexual Self-Schema Categorization

In previous research, participants' scores on the two positive factors (i.e., romantic/passionate and open/direct) and the negative factor (i.e., embarrassed/conservative) of the Sexual Self-Schema Scale were linearly combined to form a single total score. Replicating previous studies (Andersen & Cyranski, 1994; Andersen, Woods, & Copeland, 1997), the mean total schema score for this sample was 59.54 ($SD = 13.46$).

For purposes of the current study, however, individual scores on the positive and negative dimensions were considered independently. The mean for the positive dimension (Factors 1 and 2) was 81.79 ($SD = 11.22$), with a median score of 83. This scale included 19 items and had a Cronbach's alpha of .82. The mean for the negative dimension (Factor 3) was 22.25 ($SD = 5.59$), with a median score of 23. This scale included seven items and had a Cronbach's alpha of .64. Median split procedures were performed on the two dimensions using cutoffs of 82-83 for the positive dimension and 22-23 for the negative dimension. From this, participants were categorized into one of four possible schema groups: positive (high positive and low negative scorers; $n = 87$), negative (low positive and high negative scorers; $n = 87$), aschematic (low positive and low negative scorers; $n = 70$), and co-schematic (high positive and high negative scorers; $n = 74$).

Analysis Plan

When appropriate, conceptually related scales were combined into single multivariate analyses of variance (MANOVAs). Follow-up analyses of variance (ANOVAs) were then run for the individual scales. For significant ANOVAs, planned comparisons were run to test the schema group contrasts. For path model analyses, simultaneous regression analyses were used, with standardized beta weights used as estimates of path coefficients.

Schemas and Sexuality

Results

Sexual Behaviors

A MANOVA on the sexual behavior indicators of lifetime SES, current (the past 30 days) SES, and the Sexual Avoidance scale was significant, $F(9, 759.48) = 5.96, p < .01$. Follow-up ANOVAs for each of the individual scales also reached significance (all $ps < .01$). Inspection of the pattern of group means across these behavioral scales revealed a similar picture, with the middling scores of the aschematic and co-schematic

groups contrasted by the extreme scores of the positive and negative groups (see Table 1). Figure 3A graphically represents these group differences across lifetime sexual activities.

Sexual Response Cycle

Sexual desire. A MANOVA on the Sexual Desire subscale of the SRS and the Sexual Preoccupation scale was significant, $F(6, 470) = 3.25, p < .01$. Follow-up ANOVAs for the individual measures also were significant ($p < .01$). As predicted,

planned comparisons indicated that the co-schematic women, in contrast to the aschematic women, were more likely to be preoccupied with thoughts about sex (with Sexual Preoccupation scores of 21.45 vs. 18.1, $p < .01$) and reported marginally higher levels of sexual desire (with Sexual Desire subscale scores of 19.64 vs. 18.35, $p < .06$). Moreover, both measures resulted in a similar pattern of scores across the four schema groups, with the negative and aschematic groups obtaining similarly low scores and the positive and co-schematic groups obtaining similarly high scores on both sexual desire indicators

Table 1
Schema Group Comparisons: Sexuality Measures

Sexuality measure	Schema group			
	Negative	Aschematic	Co-schematic	Positive
Sexual behaviors				
Lifetime Sexual Experience scale (SES)				
<i>M</i>	14.64 _a	17.17 _b	17.08 _b	19.93 _c
<i>SD</i>	6.96	6.33	6.15	3.15
Current (past 30 days) SES				
<i>M</i>	51.38 _a	57.46 _{a,b}	66.14 _{b,c}	76.44 _c
<i>SD</i>	48.72	45.89	53.62	50.05
Sexual Avoidance subscale				
<i>M</i>	11.09 _a	9.07 _b	8.61 _b	5.57 _c
<i>SD</i>	6.46	5.78	6.00	4.59
Sexual response cycle				
Desire				
Sexual Desire subscale				
<i>M</i>	17.75 _a	18.35 _a	19.64 _b	19.79 _b
<i>SD</i>	3.11	3.95	4.11	3.07
Sexual Preoccupation scale				
<i>M</i>	16.79 _a	18.10 _a	21.45 _b	20.61 _b
<i>SD</i>	8.15	7.38	9.62	9.23
Arousal				
Arousal Difficulties subscale				
<i>M</i>	10.92 _a	9.73 _{a,b}	8.96 _b	9.30 _b
<i>SD</i>	3.96	3.67	3.93	4.36
Sexual Arousability Index (SAI)				
<i>M</i>	101.72 _a	105.03 _a	118.55 _b	117.02 _b
<i>SD</i>	22.69	23.34	21.79	18.91
Anxiety				
Expanded SAI				
<i>M</i>	52.86 _a	36.79 _b	48.93 _a	31.80 _b
<i>SD</i>	33.31	26.33	43.04	30.83
Sexual Anxiety and Self-Consciousness scale				
<i>M</i>	7.62 _a	6.10 _b	6.93 _{a,b}	4.86 _c
<i>SD</i>	3.33	3.54	4.27	3.60
Sexual self-evaluation				
Global sexuality ratings				
<i>M</i>	2.32 _a	3.39 _b	3.18 _b	4.18 _c
<i>SD</i>	1.90	1.98	2.21	2.05
Sexual Esteem scale				
<i>M</i>	20.56 _a	24.59 _b	25.28 _b	30.99 _c
<i>SD</i>	8.39	7.84	10.04	7.94

Note. Different subscripts indicate significant differences across group means ($p < .05$). For the majority of the analyses, cell sample sizes were as follows: negative, 87; aschematic, 70; co-schematic, 74; and positive, 87. Because only women who had previously engaged in sexual intercourse were asked to complete the Sexual Responsiveness Scale, cell sample sizes for the Sexual Desire subscale and the Arousal Difficulties subscale differed as follows: negative, 51; aschematic, 51; co-schematic, 56; and positive, 82.

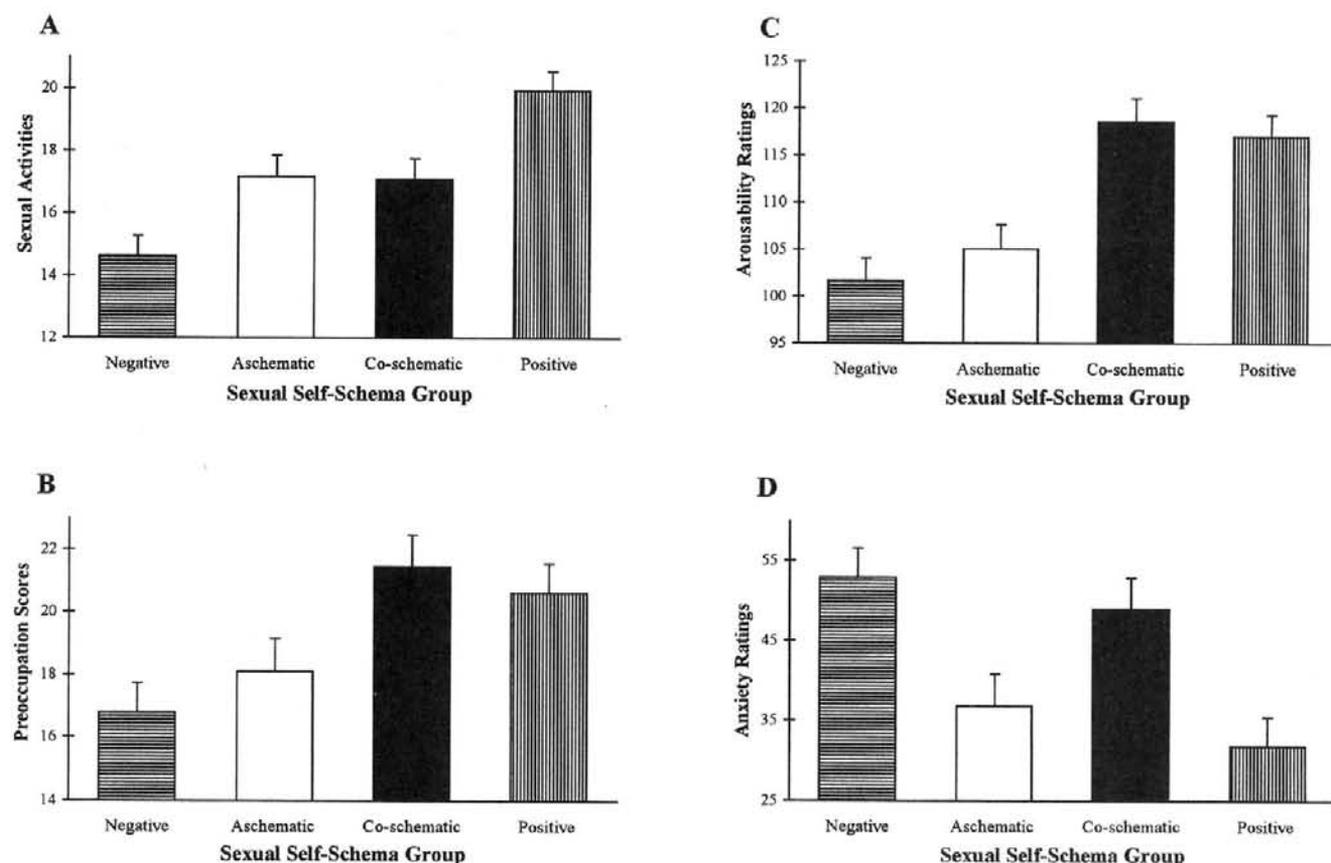


Figure 3. Sexuality results. A: Behaviors: lifetime sexual activities (Sexual Experience scale). B: Desire: Sexual Preoccupation scores (from the Sexuality Scale). C: Arousal: Sexual Arousalability Index ratings (SAI) D: Anxiety: sexual anxiety ratings (Expanded SAI).

(see Table 1). Figure 3B graphically depicts mean sexual preoccupation scores across the four schema groups.

Sexual arousal. A MANOVA on the SAI and Arousal Difficulties subscale of the SRS was significant, $F(6, 470) = 5.24, p < .01$. Follow-up ANOVAs for the individual measures indicated significant differences across the four schema groups in levels of perceived sexual arousal across a variety of sexual situations ($p < .01$) and marginally significant differences in their reported occurrence of arousal difficulties ($p < .07$). Planned comparisons indicated that the co-schematic group, compared with the aschematic group, reported significantly higher levels of sexual arousability (with SAI scores of 118.55 vs. 105.03, $p < .01$) but that they did not significantly differ in their self-reports of specific arousal difficulties (see Figure 3C for a graphic representation of SAI scores).

Sexual anxiety. A MANOVA on the SAI-E and the Sexual Anxiety and Self-Consciousness scale was significant, $F(6, 626) = 6.40, p < .01$. Follow-up ANOVAs for both of the individual measures also were significant ($ps < .01$). As predicted, an evaluation of group means indicated similarly low levels of sexual anxiety reported by the positive and aschematic groups (with SAI-E means of 31.8 and 36.78, respectively), as compared with the significantly higher levels reported by the negative and co-schematic groups (with SAI-E scores of 52.86

and 48.93, respectively; see Table 1). A similar pattern of results was obtained across participants' Sexual Anxiety and Self-Consciousness scores, although in this case the aschematic versus co-schematic group comparison failed to reach significance ($p < .18$). Figure 3D provides a graphic representation of SAI-E scores by schema group.

Orgasm/resolution. A one-way ANOVA on the Orgasm/Resolution subscale of the SRS failed to reach significance, $F(3, 236) = 0.79$.

Sexual Self-Evaluations

A MANOVA on the global sexuality ratings and the Sexual Esteem scale was significant, $F(6, 626) = 11.80, p < .01$. Follow-up ANOVAs for both measures also were significant ($ps < .01$). Planned comparisons showed no significant differences between the aschematic and co-schematic groups on either of these indicators. Mirroring the sexual behavior outcomes, both aschematic and co-schematic groups obtained similarly intermediate scores, which significantly differed from the high self-evaluations of the positive group and low self-evaluations of the negative group (see Table 1).

Discussion

Positive Versus Negative Schema Women

Replicating and extending previous research (Andersen & Cyranowski, 1994), the current results portray a clearly differentiated picture of the sexuality of women who hold consistently positive versus negative sexual self-views. As predicted, positive schema women reported higher levels of sexual desire and arousal than did negative schema scorers. By contrast, negative schema women reported higher levels of sexual anxiety than did their positive schema counterparts, which may contribute to their lower levels of sexual activities and heightened sexual avoidance.

Notably, no significant positive–negative group difference was obtained on the Orgasm/Resolution subscale. Indeed, no schema group differences on this scale approached significance. This singular lack of a schema effect may partly be accounted for by the demographics of our sample. Specifically, the participants were young (mean age = 20 years). Hence, one might argue that the women lacked the sexual experience necessary to have achieved—or to reliably differentiate the responses associated with—orgasm. Indeed, other data indicate that schema group differences in orgasmic frequency and satisfaction emerge with samples of older, more sexually experienced women (e.g., see Andersen et al., 1997). Of note, however, is that in other respects, the data with younger women are identical to that with older samples.

Positive Versus Co-schematic Women

As was predicted by their similarly high scores on the positive schema dimension, the co-schematic group resembled the positive schema group in their heightened reports of positive sexual affects. Both groups reported elevated levels of sexual desire and arousal. Unlike the positive schema group, however, co-schematics hold simultaneous negative sexual self-views. Hence, as predicted, the co-schematic group reported higher levels of sexual anxiety, which, in fact, approached the levels reported by the negative schema group (see Figure 3D). Given these elevated levels of sexual anxiety, it is not surprising that the co-schematics also deviated from the positive group behaviorally; the co-schematics reported restricted sexual behaviors and higher levels of sexual avoidance than their positive schema counterparts. Finally, the co-schematic women were significantly more neutral in their sexual self-evaluations, and indicated lower levels of sexual esteem, than the positive schema women.

Negative Versus Aschematic Women

Confirming our hypotheses, the aschematic group, who—like the negative group—score below the mean on the positive schema dimension, exhibited similarly low levels of sexual desire and arousal. Unlike the negative schema group, however, aschematics do not hold negative sexual self-schemas. It follows, then, that the aschematic group reported significantly lower levels of sexual anxiety and self-consciousness than their sexually anxious negative schema counterparts. The negative and aschematic groups also differed behaviorally; the aschematic group

reported more lifetime sexual experiences and less sexual avoidance than did the negative schema group. Finally, the aschematic women were more neutral in their evaluations of themselves as “sexual women” and reported higher levels of sexual esteem than did the negative schema group.

Aschematic Versus Co-schematic Women

These data suggest that the bivariate conceptualization clarifies the schematic representations of individuals falling near the center of the bipolar schema distribution. There were similarities between aschematic and co-schematic women (as would be expected), but there also were dimensions on which these women differed markedly. In terms of similarities, aschematic and co-schematic women endorsed moderate levels of past and current sexual behaviors, falling between the heightened sexual activities of the positive group and the restricted behavioral patterns of the negative group. In addition, both aschematic and co-schematic groups provided neutral evaluations of themselves as sexual women and what might be regarded as mediocre levels of sexual esteem.

We hypothesized, however, that these similarities represent the outward result of much different underlying cognitive, affective, and behavioral processes, and the data confirmed this view. For the aschematic group, neutral sexual self-evaluations represented a simple phenomenon. These individuals lack a coherent schematic framework to reliably guide their cognitive evaluations; they have neither positive nor negative self-structures to push their evaluations toward either extreme. The aschematic women indicated little activation of either positive or negative affects in response to sexual cues. For example, they reported few thoughts about sex and a low general desire for sexual interactions. When faced with specific sexual situations, they reported little sexual arousal. Yet, they did not experience sexual activities as aversive or anxiety producing. With their tepid sexual cognitions and affects, aschematic individuals neither seek out nor avoid sexual interactions. Rather, we theorize that their moderate levels of sexual behaviors are driven more by external, situational factors rather than internal schematic representations.

By contrast, the profile for the co-schematic group is the product of salient but conflicting positive and negative schemas. Co-schematic women were preoccupied with sexual thoughts and reported a greater desire for sexual activities. These sexual activities, however, activated strong negative as well as positive affective responses; they reported high levels of sexual anxiety as well as sexual arousal in response to sexual interactions. Behaviorally, this cognitive–affective coactivation may lead to a pattern of sexual approach–avoidance responses, with the net result being a moderately restricted pattern of sexual behaviors that outwardly matched that of the aschematic group. The affective mix of the co-schematic group and blandness of the aschematic group was strikingly evident in a comparison of group scores on sexual arousal (SAI) and sexual anxiety (SAI-E) indicators (see Figures 3C and 3D).

Path Model: Results and Discussion

We have hypothesized that sexual self-schemas represent cognitive frameworks that determine how people perceive, interpret,

and respond to sexual stimuli. These effects may represent direct stimulus–cognition–response routes. In addition, however, sexual self-schemas may influence response outcomes via cognitive–affective links. The cognitions associated with people’s sexual self-views drive emotive as well as cognitive responses to sexual cues, which may conjointly influence response outcomes. Figure 4 shows a working cognitive–affective mediation model of sexual self-schema across two sexual evaluation outcomes.

Inherent to our model are several hypotheses. In line with the bivariate schema model, we predict that the cognitions associated with women’s positive and negative sexual self-views will have independent direct (and opposing) effects on cognitively driven sexual evaluations. In addition, we contend that women’s self-schemas may indirectly influence sexual evaluations via the mediation of sexual affects. Specifically, positive sexual self-views should drive positive sexual affects (e.g., sexual arousal), whereas negative sexual self-views should drive negative sexual affects (e.g., sexual anxiety). These positive and negative sexual affects will in turn have opposing effects on affectively laden sexual evaluations. We tested our path model across two sexual evaluation outcomes. To begin, we chose sexual esteem (from the Sexuality Scale; Snell & Papini, 1989) to represent a positive, cognitive evaluation of one’s sexual ability or skills. By contrast, a measure of erotophobia (SOS; Fisher et al., 1988) was chosen to tap participants’ negative, affective evaluation of sexual cues.

The data presented in Figure 4 confirm our hypotheses. To begin, estimated path coefficients indicated that sexual arousal was largely predicted by participants’ scores on the positive schema dimension ($\beta = .41, p < .001$) and was not influenced by the negative schema dimension ($\beta = .02$), whereas sexual anxiety was largely predicted by participants’ scores on the negative schema dimension ($\beta = .30, p < .001$) but only weakly

predicted by the positive schema dimension ($\beta = .11, p < .05$; see Figure 4). In addition, different path effects emerged across the cognitive versus affective outcomes. For the positive, cognitively loaded sexual esteem ratings, we found similarly strong direct yet opposing effects of the positive and negative schema dimensions (β s = $.25$ and $-.26$, respectively, p s $< .001$) as well as an added effect of sexual arousal ($\beta = .21, p < .001$; see Figure 4, boldface type). For the negative, affectively laden erotophobia scores, however, we found that the direct effects of positive and negative sexual self-views dropped out because these evaluations were predominantly driven by affectively mediated pathways, that is, via levels of sexual arousal ($\beta = -.46, p < .001$) and sexual anxiety ($\beta = .16, p < .01$). In summary, these findings attest to the utility of examining the positive and negative schema dimensions as independent constructs with unique effects on cognitive–affective processes rather than as flip sides of the same coin (i.e., opposite poles of a unidimensional model).

Schemas and Romantic Attachments

Results

Relationship History

A series of chi-square and one-way ANOVA analyses indicated significant group differences across a number of the relationship history variables. A significant difference emerged between the co-schematic group and all other groups in terms of current marital status, $\chi^2(3, N = 317) = 13.48, p < .01$. Whereas 98.6% of the aschematic women, 97.7% of the negative women, and 95.4% of the positive women categorized themselves as “single, never married,” only 86.4% of the co-schematic women fell into this category. The remainder of co-sche-

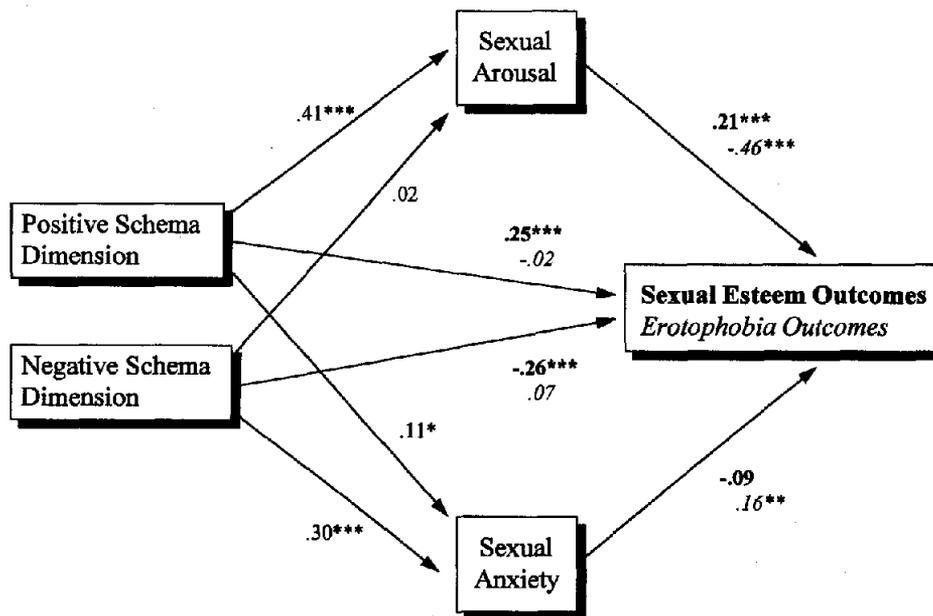


Figure 4. Path analysis results. Path coefficients estimated by standardized regression coefficients (β s) obtained from simultaneous regression analyses. * $p < .05$; ** $p < .01$; *** $p < .001$.

matic women labeled themselves as "living with partner as married" (9.5%), "married" (2.7%), or "separated/divorced" (1.4%).

A one-way ANOVA indicated a significant difference in the number of past romantic relationships reported across the four schema groups, $F(3, 311) = 9.48, p < .01$. This was characterized by a significant difference between the positive group, who reported a mean of 2.51 previous relationships, and all other schema groups (the negative group reported 1.49 relationships; the aschematic group, 1.83; and the co-schematic group, 1.81; see Table 2). This trend was mirrored in participants' reports of current relationship status: 70.93% of the positive group reported being in a current relationship, as opposed to the co-schematic (58.9%), negative (57.47%), and aschematic (55.07%) groups, $\chi^2(3, N = 315) = 5.17, p = .16$. Of the women in a current relationship, however, no group differences were obtained in terms of the length of relationship, $F(3, 189) = 0.34, p = .79$. The average relationship length was 9–10 months.

For women in a current relationship, differences were obtained in reports of the seriousness of the relationship, $\chi^2(6, N = 194) = 13.91, p < .05$. The co-schematic and positive groups were more likely to describe their current relationship as either partnered, engaged, or married (27.27% of the co-schematic women and 21.21% of the positive women), in contrast to the aschematic and negative groups (7.69% and 14%, respectively).

Passionate Love

A one-way ANOVA on the PLS reached significance, $F(3, 313) = 6.72, p < .01$. An inspection of group means showed

the predicted pattern of high levels of passionate love reported by the positive and co-schematic groups (with PLS scores of 97.63 and 95.86, respectively), in contrast to the significantly lower levels reported by the negative and aschematic groups (87.97 and 85.21, respectively; see Table 2). A planned comparison of aschematic and co-schematic group means was significant ($p < .01$), with the co-schematic group reporting more passionate love for their partners than their aschematic counterparts (see Figure 5A for a representation of PLS scores across the four schema groups).

Romantic Attachment Styles

One-way ANOVAs indicated significant group differences on both the avoidant, $F(3, 314) = 5.67, p < .01$, and anxious, $F(3, 314) = 3.77, p < .05$, adult romantic attachment dimensions. Inspection of group means indicated high levels of avoidant attachment reported by both the negative and aschematic groups (20.71 and 20.94, respectively), contrasted by the lower levels of avoidance reported by positive and co-schematic groups (16.33 and 18.36, respectively; see Table 2). A planned comparison of aschematic and co-schematic group means on this dimension approached significance ($p = .06$; see Figure 5C). In terms of the anxious attachment dimension, high scores reported by all three nonpositive groups were contrasted by the significantly lower, or nonanxious, scores of the positive group (see Figure 5D).

Dyadic Satisfaction

A one-way ANOVA on the Dyadic Satisfaction subscale of the DAS was significant, $F(3, 190) = 2.65, p < .05$. Inspection

Table 2
Schema Group Comparisons: Relationship Measures

Relationship measure	Schema group			
	Negative	Aschematic	Co-schematic	Positive
Relationship history (no. of past romantic relationships)				
<i>M</i>	1.49 _a	1.83 _a	1.81 _a	2.51 _b
<i>SD</i>	1.14	1.20	1.41	1.40
Passionate Love Scale				
<i>M</i>	87.97 _a	85.21 _a	95.86 _b	97.63 _b
<i>SD</i>	20.41	18.84	25.71	16.55
Avoidant attachment style				
<i>M</i>	20.71 _a	20.94 _a	18.36 _b	16.33 _b
<i>SD</i>	7.38	8.31	8.14	9.20
Anxious attachment style				
<i>M</i>	13.46 _a	12.96 _a	13.19 _a	10.84 _b
<i>SD</i>	5.52	5.12	5.62	6.37
Relationship satisfaction (Dyadic Adjustment Scale)				
<i>M</i>	34.96 _{a,b}	33.05 _a	36.93 _b	35.28 _{a,b}
<i>SD</i>	5.75	5.91	5.30	7.47

Note. Different subscripts indicate significant differences across group means ($p < .05$). (For avoidant vs. secure analysis, $p < .08$.) For the majority of the analyses, cell sample sizes were as follows: negative, 87; aschematic, 70; co-schematic, 74; and positive, 87. Because only women in a current romantic relationship were asked to rate their relationship satisfaction, cell sample sizes for relationship satisfaction differed as follows: negative, 50; aschematic, 39; co-schematic, 44; and positive, 61.

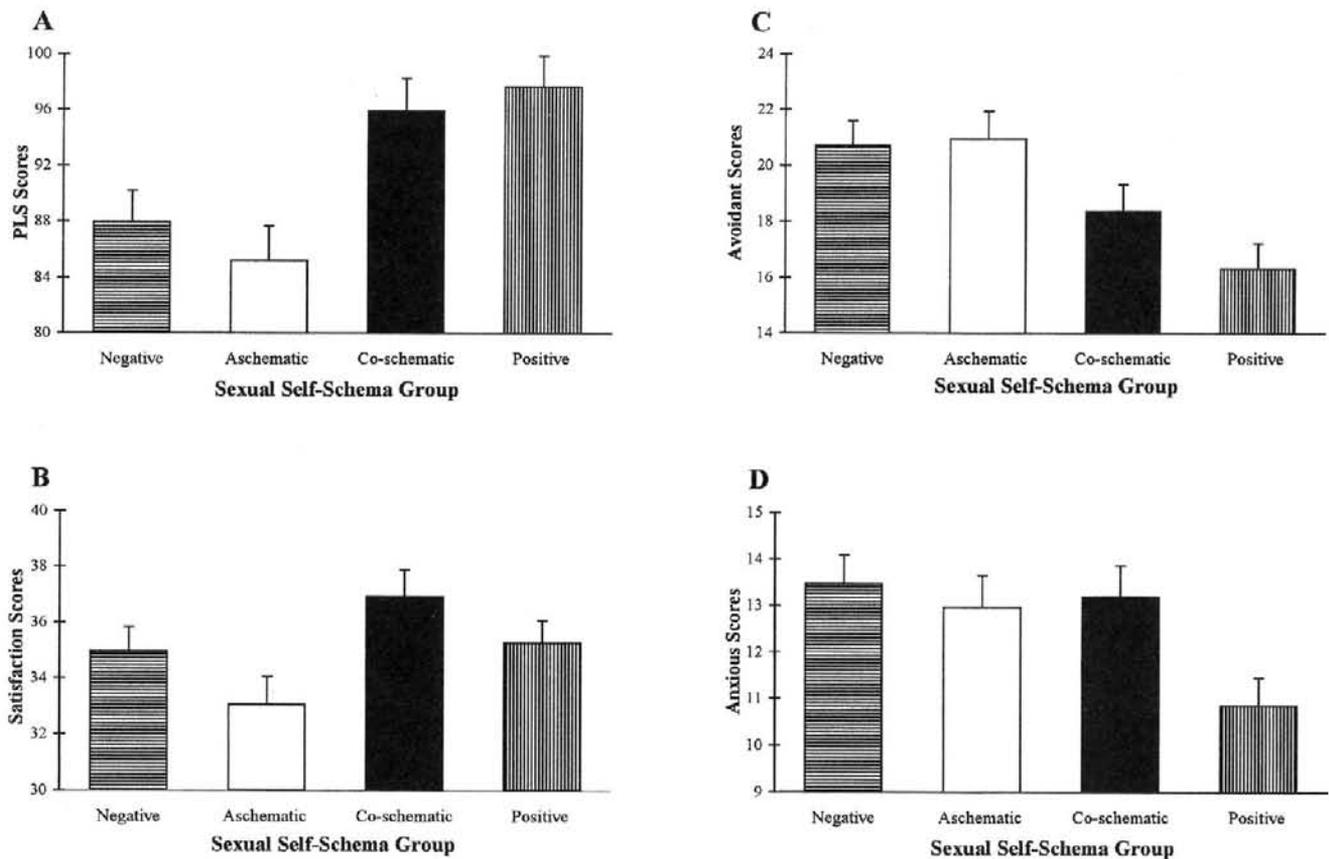


Figure 5. Romantic attachment results. A: Passionate Love Scale (PLS). B: Relationship satisfaction (from the Dyadic Adjustment Scale). C: Avoidant attachment dimension (avoidance of intimacy). D: Anxious attachment dimension (anxiety about abandonment).

of group means indicated similarly moderate levels of relationship satisfaction reported by both positive and negative groups, contrasted by the lower ratings of the aschematic group ($M = 33.05$) and the higher ratings of the co-schematic group ($M = 36.93$; see Table 2). As predicted, the planned comparison of aschematic and co-schematic group means was significant ($p < .01$; see Figure 5B).

Discussion

Positive Versus Negative Schema Women

Positive schema women reported more extensive histories of previous romantic relationships, were more likely to be in current relationships, and were more likely to describe their relationships as "partnered or engaged" than negative schema scorers. In addition, positive schema women reported being more passionate about their romantic partners and did not avoid emotional intimacy in their relationships. This was in direct contrast to the low levels of passionate love and avoidant attachments endorsed by negative schema women. In addition, negative schema women reported elevated levels of anxiety about being unloved or abandoned by their romantic partners, in contrast to the nonanxious attachments of positive schema women.

Positive Versus Co-Schematic Women

Positive and co-schematic women view themselves as being romantic, passionate, and open individuals. We have previously speculated that the positive sexual self-schema dimension may foster the development of emotional attachment or connection as a context for sex. Supporting this hypothesis, both positive and co-schematic groups indicated high levels of passionate feelings for their romantic partners, and both sought emotionally close relationships. However, the co-schematics also hold negative sexual self-views, which may permeate their romantic attachments and lead to insecurities about romantic relationships. Compared with positive schema women, co-schematic women reported more anxieties about being abandoned or unloved by their mates, yet the co-schematic women in current relationships reported the most relationship satisfaction and were of all groups the most likely to be living with their romantic partners.

Negative Versus Aschematic Women

Both negative and aschematic women reported few romantic relationships, less passionate love, and an avoidance of emotional intimacy. This pattern of disinterest or avoidance of close emotional attachments may serve to illustrate the schematic sim-

ilarities of negative and aschematic women: Both groups provide weak endorsements on the positive sexual self-schema dimension, which has been theoretically linked to the development of emotional attachments. In contrast to aschematic women, however, negative schema women hold concomitant negative sexual self-views. Given this schematic discrepancy, we had predicted that the negative schema group would indicate higher levels of anxious attachment than their aschematic counterparts; instead, however, both groups reported similar, high levels of anxious attachment.

Aschematic Versus Co-Schematic Women

There were no differences in the romantic relationship histories of the aschematic and co-schematic groups. However, we hypothesized different mechanisms underlying these similar outcomes. Specifically, the aschematic group's modest relationship history may represent a simple phenomenon; given their lack of positive or negative sexual self-schemas, this group may be unmotivated to either seek or avoid emotional attachments to foster sexual-romantic interactions. Their romantic attachment histories may therefore be driven by alternative self-representations or external circumstances rather than by sexual self-schemas.

By contrast, the co-schematic women reported strong positive responses to romantic partners and a desire for close relationships. At the same time, however, the negative aspects of the co-schematic group's sexual self-view may undermine their attachment efforts. For example, lack of self-confidence and fears of rejection may inhibit co-schematic individuals' initiation of romantic contacts. Alternatively, their conflicting self-views may promote feelings of insecurity and an anxious need for emotional intimacy, which may produce behaviors or responses that strain or sabotage romantic relationship efforts. Specifically, for co-schematic women, high levels of passionate love and a desire for emotional intimacy were paired with negative views of the sexual self and anxieties of being abandoned or unloved by their mates. This conflictual cognitive-affective pattern may lead to a strong (or even a "dependent") need for close, committed romantic relationships. Our data add support to this hypothesis. For example, although equal numbers of aschematic and co-schematic women reported being in a current romantic relationship, there were marked differences in the women's descriptions of these relationships. Whereas 27% of the co-schematic women described their current relationship as partnered, engaged, or married, only 8% of the aschematic women reported this level of relationship commitment. Moreover, among all four schema groups, the co-schematic women were most likely to be living with their romantic partners (12.2% of those in relationships). Finally, the co-schematic women reported the greatest relationship satisfaction—and aschematic women the least relationship satisfaction—among all four schema groups (see Figure 5B).

GENERAL DISCUSSION

Schemas and Sexuality: Support for the Bivariate Schema Model

Our results support the validity of the bivariate schema model, in which positive and negative components of women's sexual

self-views independently contribute to their schematic representations. Our findings replicate and extend understanding of the sexual responses of women with consistently positive versus negative sexual self-views. More important, however, we have differentiated the self-views and sexual response patterns of two additional schema typologies: the aschematic and co-schematic groups. These new typologies defined via the bivariate schema model speak to the complexity of women's sexual self-views.

The simultaneous activation of strong positive and negative sexual self-views was manifest in the response patterns of the co-schematic group. The coactivation of this group's positive and negative self-structures was reflected in their conflicting responses to sexual cues, that is, co-schematic women experienced elevated levels of both positive sexual responses (e.g., sexual desire, preoccupation, and arousal) and negative sexual responses (e.g., sexual anxiety and self-consciousness). In clear contrast were the aschematic women, who, with weak or inaccessible positive or negative representations of their sexuality, reported neither strong positive nor strong negative responses to sexual cues.

Notably, the aschematic and co-schematic groups were indistinguishable on cumulative measures of sexual behaviors and global sexual self-evaluations. Underlying these outward similarities, however, lie distinct patterns of cognitive-affective responses. Specifically, we suggest that for aschematic women, middling levels of sexual behaviors and evaluations represent a simple phenomenon: These individuals lack the relevant self-structures to drive either positive approach or negative avoidance responses. By contrast, the co-schematic women's activation of both positive and negative sexual self-views leads to a pattern of conflicting positive and negative sexual responses and approach-avoidance behaviors. The latter process results in global levels of sexual behaviors and evaluations that are deceptively similar to those of aschematic women.

Path-analytic findings lend further support to the bivariate schema model and highlight these different cognitive-affective pathways. As proposed, the positive and negative schema dimensions had direct and opposing effects on cognitive evaluations of participants' sexuality (i.e., sexual esteem ratings). That is, the women's positive and negative sexual self-views independently contributed to their evaluations of themselves "as a sexual partner." Alternatively, examination of the affectively laden erotophobia outcome revealed that the positive and negative schema effects were mediated by their impact on sexual arousal and sexual anxiety, respectively (see Figure 4). Thus, this model specifies two distinct pathways that may lead to mediocre sexual evaluations: (a) via the strong activation of opposing positive and negative sexual cognitions and affects (as shown by the co-schematic women) or (b) via the weak activation of positive and negative sexual cognitions and affects (as shown by the aschematic women).

Several points are noteworthy in evaluating these path-analytic results. First, although we were theorizing about the potential direct and indirect causal effects of one's sexual self-views, the current tests were correlational and could not test causality. Instead, this research represents a working model that may guide future prospective research and theory building. In addition, this model is a simple one, with expansion needed to capture the dynamic cognitive, affective, and behavioral relationships. In-

deed, in this representation all pathways are unidirectional, flowing from one's cognitive self-schemas toward sexual affects and responses. During early sexual maturation, however, the arrows may well point in the opposite direction. Social cognitive theory, for example, suggests that people's self-views develop and undergo refinement as they observe their own affective and behavioral patterns and interactions and come to conclusions about relevant aspects of themselves. Hence, in early schema development, one's behavioral and affective response patterns (or, more accurately, one's perception of these) shape the formation of cognitive self-structures. Even in adulthood, self-schemas are not static but dynamic. An expanded model might include pathways that allow for the possibility that people's sexual self-schemas may evolve or be fine-tuned as they observe changes in their sexual affects and behaviors over time.

Sexual Self-Schemas and Attachment

Attachment theory (Bowlby, 1969, 1973, 1980) proposes that one's earliest cognitive representations are those regarding the self and the self-other relationships that develop from early infant-caregiver interactions. Attachment theorists argue that the quality of these infant-caregiver relationships influences the development of mental models that organize cognitions, affects, and behaviors (i.e., general attachment styles) in later relationships. Hence, if early caretakers are rejecting or inconsistent, the child may develop schemas of attachment relations as unavailable or inconsistent and may concomitantly develop schemas of the self as unworthy or unlovable (Bowlby, 1973; Ainsworth et al., 1978). Griffin and Bartholomew (1994) proposed a two-dimensional schematic model that focuses on the positivity of one's model of the self as opposed to the positivity of one's model of attachment others (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994). According to this theory, internalized self-representations (specifically, positive representations related to evaluations of self-worth) relate to anxious versus nonanxious patterns of attachment. By contrast, representations of attachment figures (i.e., the degree to which others are expected to be available or supportive) relate to the attachment dimension of avoiding, versus seeking out, close relationships (Griffin & Bartholomew, 1994, p. 431).

Our results are consistent with Griffin and Bartholomew's (1994) two-dimensional attachment model. Specifically, the romantic/open aspects of the positive sexual self-schema dimension may relate to one's basic beliefs about attachment figures (i.e., Are potential partners responsive or desirable?) and in turn to one's proclivity to foster close relationships (i.e., the secure vs. avoidant attachment dimension). By contrast, the embarrassed/self-conscious aspects of the negative schema dimension may relate to the positivity of one's model of self (i.e., Am I worthy? Will my partner reject me?), which may relate to the experience of anxiety in close relationships (i.e., the anxious attachment dimension). Consistent with these predictions, our results indicate that positive schema women reported both approachlike (i.e., nonavoidant) and nonanxious attachments. Negative schema women, by contrast, reported the converse: anxious and avoidant attachments. Also as expected, co-schematic women reported both approachlike and anxious attachments.

Although some clarity was achieved, the attachment profile of the aschematic group remains an enigma. Whereas this group showed the expected avoidant pattern of attachments, they also reported somewhat anxious attachments, which was unexpected given their lack of specific negative sexual self-schemas. Given Griffin and Bartholomew's (1994) inference that anxious attachment styles indicate generally negative self-views, a closer analysis of the potential underpinnings of women's general self-esteem may help clarify this finding. Research by Josephs, Markus, and Tafarodi (1992), for example, has suggested that women's self-esteem is derived in part from their sense of interpersonal connectedness or relatedness with others. We have theorized that the romantic, loving, and open characteristics of the positive schema dimension should serve to foster such interpersonal connections and in turn contribute to women's general level of self-esteem. Hence, although aschematic women do not hold clearly negative sexual self-views, they do not hold positive sexual self-views either; consequently, a weak sense of interpersonal connectedness may undermine their general levels of self-esteem and fuel anxieties about being unloved or abandoned by relationship partners. Clearly, more research is necessary to clarify the relationship of sexual self-schema and romantic attachment patterns using other methodologies for assessing adult romantic attachments (for examples, see Collins & Read, 1990; George, Kaplan, & Main, 1985; Hazan & Shaver, 1987).

Sexual Self-Schemas and the Cognitive Hierarchy of the Self

What are the cognitive mechanisms underlying sexual self-schema/attachment associations? Many have argued for the complexity of the self construct, which may be viewed as multiple pieces of self-relevant information grouped into variously well-integrated or distinct clusters of related aspects. It is often assumed that these clusters are organized into a hierarchy of self-representations, with alternate levels representing more or less inclusive aspects of the self (e.g., see Kihlstrom & Cantor, 1984; Markus & Wurf, 1987; Mikulincer, 1995; Rogers, 1981). Attachment theory suggests that one's early self and self-other relationship representations are the building blocks on which subsequent personal and interpersonal cognitive representations are based and thereby exemplify higher order representations in the cognitive structure of the self. Later, as the child or adolescent's range of experience and interactions expands, so, too, may the complexity of the self construct, as he or she develops differentiated, lower order representations of the self within certain contexts, eventually including the sexual realm. The differentiation, integration, and hedonic tone of these sexual self-structures, however, may remain closely associated with the individual's early attachment representations, particularly throughout adolescence and early adulthood (see Mikulincer, 1995). Hence, early attachment experience may set the stage for the development of particular sexual self-views. However, throughout adulthood one's sexual self-schemas may in turn influence attachment behaviors within romantic-sexual relationships as well as one's view of the self as a sexually mature adult. Therefore, relationships between higher order attachment representations and subordinate sexual self-views may become bidirectional across the developmental spectrum.

The limitations of our study include its sample and cross-sectional design. Notably, our sample was restricted to young women (mean age = 20 years), who had relatively few years of sexual experience. The sexual self-schemas of these women may be less differentiated than those of older women and more strongly related to early attachment-based personal and interpersonal schemas. This hypothesis, however, has yet to be empirically tested. Further research is needed to clarify both the cognitive structures and sexual response patterns of women across the developmental spectrum. We also note the need for longitudinal studies to clarify the stability, development, and potential interactions of women's sexual self-schemas, attachment representations, and behavioral patterns across time. Finally, much needed research to delineate the potential form and function of men's sexual self-views is currently under way.

CONCLUSIONS

Empirical support for the bivariate model of women's sexual self-schemas was obtained. In addition to the previously defined positive and negative sexual self-schema groups, we differentiated two other sexual self-schema topographies: the aschematic and co-schematic groups. Aschematic women—or those who hold neither strong positive nor strong negative sexual self-views—reported tepid levels of both positive sexual responses (e.g., sexual desire and arousal) and negative sexual responses (e.g., sexual anxiety), low levels of passionate love, an avoidance of emotional intimacy, and low levels of relationship commitment and satisfaction. By contrast, co-schematic women—or those with salient but conflicting positive and negative sexual self-views—endorsed high levels of sexual desire, preoccupation, and arousal as well as high levels of sexual anxiety. The co-schematic women also reported strong feelings of passionate love, a desire for emotional intimacy, and high levels of relationship satisfaction and commitment paired with anxieties of being abandoned or unloved by their mates. Path analyses provided support for the independent effects of the positive and negative schema dimensions and highlighted different cognitive-affective pathways by which aschematic and co-schematic groups may arrive at similar sexual evaluations. Finally, the potential development of and bidirectional relationships between attachment representations and sexual self-schemas were explored and discussed.

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Appendix

Sexual Self-Schema Scale—Women's Form

DESCRIBE YOURSELF

Directions: Below is a listing of 50 trait adjectives. For each word, consider whether or not the term describes you. Each adjective is to be rated on a 7-point scale ranging from 0 (*not at all descriptive of me*) to 6 (*very much descriptive of me*). For each item, fill in the appropriate circle on your computer answer sheet. Please be thoughtful and honest.

Question: To what extent does the term _____ describe me?

Rating Scale:

<i>Not at all descriptive of me</i>	0	1	2	3	4	5	6	<i>Very much descriptive of me</i>
(1) generous								(26) disagreeable
(2) <i>uninhibited</i>								(27) serious
(3) <i>cautious</i>								(28) <i>prudent</i>
(4) helpful								(29) humorous
(5) <i>loving</i>								(30) sensible
(6) <i>open-minded</i>								(31) <i>embarrassed</i>
(7) shallow								(32) <i>outspoken</i>
(8) <i>timid</i>								(33) level-headed
(9) <i>frank</i>								(34) responsible
(10) clean-cut								(35) <i>romantic</i>
(11) <i>stimulating</i>								(36) polite
(12) unpleasant								(37) <i>sympathetic</i>
(13) <i>experienced</i>								(38) <i>conservative</i>
(14) short-tempered								(39) <i>passionate</i>
(15) irresponsible								(40) wise
(16) <i>direct</i>								(41) <i>inexperienced</i>
(17) logical								(42) stingy
(18) <i>broad-minded</i>								(43) superficial
(19) kind								(44) <i>warm</i>
(20) <i>arousable</i>								(45) <i>unromantic</i>
(21) practical								(46) good-natured
(22) <i>self-conscious</i>								(47) rude
(23) dull								(48) <i>revealing</i>
(24) <i>straight-forward</i>								(49) bossy
(25) <i>casual</i>								(50) <i>feeling</i>

Note. The 26 Sexual Self-Schema Scale items are in italics. The positive schema dimension is the sum of Items 2, 5, 6, 9, 11, 13, 16, 18, 20, 24, 25, 32, 35, 37, 39, 44, 45, 48, and 50 (Item 45 is reverse keyed). The negative schema dimension is the sum of Items 3, 8, 22, 28, 31, 38, and 41.

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