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# Attachment and Sexual Permissiveness: Exploring Differential Associations Across Sexes, Cultures, and Facets of Short-Term Mating

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## Abstract

How does the psychology of attachment relate to sexual permissiveness? Do some attachment–sexuality links differ as a function of biological sex? Are attachment–sexuality links truly universal across cultures or are some localized to Western populations? Across 10 world regions ( $N = 17,837$ ), using multiple indicators of permissive sexuality, we attempted to replicate and extend recent work on these questions. Unrestricted sociosexuality was consistently linked to positive Models of Self in men but much less so among women. Self-reports of having an unfaithful sexual personality were linked to dismissing attachment in both men and women, though additional associations were observed with fearful attachment suggesting infidelity as a form of sexual permissiveness may be more closely associated with negative Models of Other. A measure of short-term mating interests was more strongly linked to dismissing attachment in men than in women. Engaging in short-term mate poaching (i.e., stealing another person’s partner for a brief affair) was linked with low overall attachment security in women but not in men. Many of the revealed associations between attachment and sexuality were relatively small in size, and some appeared to be localized to Westernized cultures.

## Keywords

attachment, promiscuity, sexuality, cross-cultural psychology

Understanding the nature of sexual permissiveness has consumed the minds of poets and professors alike. The psychology of sexual permissiveness expresses itself across a range of romantic relationship forms—from faithful and devoted lifelong marriages to extramarital affairs and open relationships (Buss & Schmitt, 1993; Spanier & Margolis, 1983; Wiederman, 1997), from complete sexual abstinence to frequently engaging in one-night stands, booty-calls, and hook-ups (Garcia, Reiber, Massey, & Merriwether, 2012; Jonason, Valentine, & Li, 2012; Owen, Fincham, & Moore, 2011). Efforts to explain variability in sexual permissiveness have focused on its origins in sex differences in evolved mating strategies (Schmitt, 2005b; Simpson & Gangestad,

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1991), in its links with personality-related traits such as the Big Five (Schmitt, 2004), the Dark Triad dimensions of Machiavellianism, Narcissism, and psychopathy (Jonason, Li, Webster, & Schmitt, 2009), and in developmental experiences associated with early parent–child relationships and subsequent attachment styles (Cooper et al., 2006; Feeney & Noller, 2004; Gillath & Schachner, 2006; Schmitt, 2005a). In this study, we focus on the role of the latter, in particular, how patterns of adult attachment psychology account for individual differences in sexual permissiveness (including distinct facets of short-term mating) across the sexes and various cultures.

Attachment theory and research has become one of the most impactful paradigms in the social and personality psychology of relationships (Mikulincer & Shaver, 2007), but relatively little research has focused on attachment and individual differences in sexuality (Bogaert & Sadava, 2002; Dewitte, 2012; Sprecher, 2013). Attachment theory has been used to predict that through a capacity for trust and emotional desires for intimacy and pair-bonding, *securely* attached individuals will seek out long-term, monogamous sexual relationships (Brennan & Shaver, 1995; Cooper, Shaver, & Collins, 1998). In contrast, *dismissing* or avoidantly attached individuals are thought to have developed a sexuality that lacks the capacity for trust and attempts to minimize intimacy and closeness (Brassard, Shaver, & Lussier, 2007; Cooper et al., 1998), which may lead to higher levels of permissive sexuality (Schmitt, 2005a; Simpson, 1990, 1999). *Preoccupied* or anxiously attached individuals tend to have heightened concerns about pleasing one's partner and experience higher levels of jealousy (Kirkpatrick, 1998). Compared with others, preoccupied individuals also tend to have more sex partners and have sex at younger ages (Bogaert & Sadava, 2002; Kirkpatrick, 1998), sometimes not by their own volition (Feeney, Peterson, Gallois, & Terry, 2000; Gentzler & Kerns, 2004), a pattern that also exhibits many of the facets of permissive sexuality.

The empirical associations between permissive sexuality and two attachment styles—dismissing attachment and preoccupied attachment—have been shown to be moderated by the sex of the participant. Specifically, dismissing men and preoccupied women have been found to be particularly sexually permissive (Bogaert & Sadava, 2002; Gentzler & Kerns, 2004; Sprecher, 2013). This may occur whereby preoccupied women give in to unwanted sex to please their partners (Kirkpatrick, 1998), whereas dismissing and emotionally cold men (e.g., men high on psychopathy; Jonason et al., 2009) have a particular, evolved capacity for strategically “using” others for sex (Jonason, Luévano, & Adams, 2012).

A recent study by Sprecher (2013) examined the relationship between attachment styles and sexual permissiveness in a large sample of Americans, finding links between dismissing attachment and high permissiveness to be primarily limited to men, whereas in women the overall attachment security is particularly associated with low permissiveness. However, this study, along with almost all studies in the general area, was limited in four important ways. First, although Sprecher reported data from a large sample, it was limited to only participants from the United States, a particularly WEIRD sample (i.e., Western, Educated, Industrialized, Rich, Democratic; see Henrich, Heine, & Norenzayan, 2010). The relative prevalence of dismissing and preoccupied attachment styles varies widely across non-WEIRD cultures (Schmitt, 2010; Schmitt et al., 2004). Moreover, the dynamics of attachment may function differently in non-WEIRD cultures (Soon & Malley-Morrison, 2000; van IJzendoorn & Sagi, 1999). For example, quality of parental care (a construct ostensibly related to attachment psychology) appears to be negatively correlated with psychopathy in Singaporean and Polish samples but not in American samples (Jonason, Li, & Czarna, 2013).

Second, the desire and pursuit of short-term mating is not a monolithic construct (Jonason, Valentine, & Li, 2012; Schmitt, 2005a). Some individuals seek short-term relationships in addition to their long-term, primary relationships (i.e., infidelity; Wiederman, 1997). Others may seek short-term partners as a primary mode of mating (i.e., promiscuity; Paul, McManus, & Hayes, 2000). Still others may possess high levels of short-term sexual desire but have not behaviorally

engaged in short-term mating, in part because they lack the attributes most desired by the opposite sex (Schmitt, 2008). Sprecher (2013) examined only the Sociosexual Orientation Inventory (SOI) and a two-item portion of the Premarital Sexual Permissiveness Scale (Sprecher, McKinney, Walsh, & Anderson, 1988) as indicators of sexual permissiveness. Uncaptured in their assessments were important individual differences specific to relationship infidelity (Schmitt, 2004), short-term mate poaching (Schmitt & Buss, 2001), and short-term mating interests (Schmitt, 2005a).

Third, Sprecher (2013) relied on a categorical measurement of attachment patterns (Brennan, Shaver, & Tobey, 1991) which precludes the measurement of alternative conceptualizations of attachment such as the dimensional Models of Self (sometimes called attachment anxiety; Fraley, Waller, & Brennan, 2000) and Models of Other (i.e., attachment avoidance). Categorical approaches often fail to fully account for important individual differences (Perlman & Sprecher, 2012; Tolman & McClelland, 2011), precluding the possibility that individuals can be characterized by more than one attachment style simultaneously and, thus, operate more like psychometric sledgehammers than scalpels (see also Fraley & Spieker, 2003).

Fourth, the Sprecher (2013) study was highly descriptive, failing to consider the potential evolutionary dynamics or adaptive functioning of links between sexual permissiveness and attachment despite the well-established utility of an evolutionary paradigm in understanding both (Kirkpatrick, 1998; Schmitt, 2005a; Simpson, 1990). Instead of simply reporting on a particularly interesting correlation or effect as is typical in social psychology, the adoption of an evolutionary framework for understanding the relationship between attachment and permissive short-term mating psychologies may provide a better heuristic guide for generating predictions and integrating observed empirical outcomes. For instance, attachment is considered one of a myriad of important aspects of the development of life history strategies (Del Giudice, 2009). Life History Theory (see Kaplan & Gangestad, 2005) describes the way organisms allocate bioenergetic resources to survival and mating in response to different contexts. Short-term mating is considered an expression of an adaptive strategy that encourages the organism to favor investment into immediate matings (e.g., Jonason et al., 2009). One input into this heuristic is information about attachment, but there are numerous other inputs as well (e.g., sex, mate value, stress), leading us to predict that while attachment insecurities might predict short-term mating psychology, it will do so only weakly (Schmitt, 2011). That is, attachment is seen as only a small portion of what calibrates a person's mating strategy to short or long term and, thus, should only predict a small portion of the variance in a person's sexual psychology (Jonason & Schmitt, 2014).

Moreover, while Sprecher (2013) examined sex-differentiated links, she provides no compelling *a priori* rationale for either doing so or how doing so helps to make sense of the effects. We feel that an evolutionary paradigm provides guidance on when and where one could expect sex-differentiation in these links themselves. A common misconception about evolutionary models of sex differences is that related researchers are "maximalists," almost suggesting that men and women are different species. Instead, evolutionary psychologists predict sex differences only in those specific domains in which men and women face different selective pressures (Confer et al., 2010). For instance, men may reproductively benefit more than women do from a cold/exploitive mating strategy, thus making them more sensitive to inputs related to dismissing attachments (Jonason et al., 2009; Jonason, Luévano, & Adams, 2012). Alternatively, women may suffer more than men do from low levels of attachment security because of the greater reproductive costs for engaging in failed long-term mateships (Buss & Schmitt, 1993; Jonason, Valentine, & Li, 2012). Attachment security may provide women the stability they need to gestate and raise healthy babies within ecological contexts that support stable long-term mateships, whereas men may derive reproductive fitness benefits from short-term mating across a wider range of contexts. In short, men and women's mating psychologies, rooted in Life History Theory, may interact with their experienced attachment patterns to predict their engagement in short-term mating behaviors.

To address these limitations and improve what we know about the links between sexual permissiveness and attachment more generally, we examined data collected in 56 nations using a number of indicators of sexual permissiveness (i.e., Sociosexual Orientation Index, Short-Term Mating Interests, Relationship Infidelity, and Attempted Mate Poaching) and an alternative measure of attachment (Bartholomew & Horowitz, 1991) that assessed individual differences across all four dimensions of attachment (i.e., Secure, Fearful, Preoccupied, and Dismissing) and allowed us to index the valence along Model of Self (i.e., anxiety) and Model of Other (i.e., avoidance) dimensions frequently examined in modern attachment research (Schmitt et al., 2004). Adopting a Life History Theory perspective (Kaplan & Gangestad, 2005; Thornhill & Palmer, 2004), we expected a dismissive attachment pattern to facilitate men's reproductive success through an exploitive mating style (Jonason et al., 2009; Jonason, Luévano, & Adams, 2012), whereas we expected a link between preoccupied attachment pattern and permissive sexuality in women, more than men, might be a function of the greater caution women exhibit in mating contexts (Buss & Schmitt, 1993; Haselton & Buss, 2000). Finally, we expected a secure attachment might predict low sexual permissiveness in both sexes as a function of the high capacity for trust and the desire for pair-bonding that is instrumental in long-term mating relationships. Because this theory acknowledges there are multiple pathways to developing a permissive sexual strategy, we expect these attachment–permissiveness–predicted links to be relatively small in size (Schmitt, 2005a).

## Method

### *Participants and Measures*

The findings reported in this study are from the International Sexuality Description Project (ISDP; Schmitt et al., 2004; Schmitt et al., 2003). The ISDP included samples from 56 nations ( $N = 17,837$ ), organized for reportorial economy in the current study into 10 major world regions. Given the methodology of the ISDP has been reported at length elsewhere (Schmitt et al., 2004; Schmitt et al., 2003), we provide here a relatively brief summary of the procedures and samples used.

The North American world region included multiple samples from Canada ( $n = 373$  men and 666 women), Mexico ( $n = 106$  men and 109 women), and the United States ( $n = 999$  men and 1,794 women). Canadian samples consisted of three independent, English-speaking samples from the Canadian provinces of Ontario, Alberta, and British Columbia and one French-speaking sample from Quebec. Thirteen independent samples from the United States were included, including one from Hawaii. Overall, the samples from mainland United States consisted of 66% European American (non-Hispanic), 10% African American, 8% Hispanic American, 5% Asian American, 2% Native American, and 9% Other or non-descriptive. A single community sample was obtained from Mexico.

Five nations from South America were part of the ISDP, including Argentina, Bolivia, Brazil, Chile, and Peru. We obtained one sample of approximately 100 men and 100 women from each South American nation, with the exception of obtaining two samples from Chile. The ISDP also included samples of about 100 men and 100 women from 8 nations in Western Europe (Austria, Belgium, Finland, France, Germany, Netherlands, Switzerland, United Kingdom), 11 nations from Eastern Europe (Croatia, Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, Serbia, Slovakia, Slovenia, Ukraine), 6 nations from Southern Europe (Cyprus, Greece, Malta, Italy, Portugal, Spain), 4 nations from the Middle East (Israel, Jordan, Lebanon, Turkey), 7 nations from Africa (Botswana, Democratic Republic of the Congo, Ethiopia, Morocco, South Africa, Tanzania, Zimbabwe), 3 nations from Oceania (Australia, Fiji and the Pacific Islands, New Zealand), 5 nations from South/Southeast Asia (Bangladesh, India, Indonesia, Malaysia, Philippines), and 4 nations from East Asia (Hong Kong, Japan, South Korea, Taiwan).

The placement of some nations into particular world regions is certainly debatable. The three European “regions” (i.e., Western, Eastern, and Southern) could be problematic because more than three regions exist in Europe, including Northern, Central, and other potential divisions. However, given the number and geography of nations included in the ISDP, we chose these three divisions to economize our presentation while maintaining the genuine regional variation across the European continent. The placement of Turkey in the Middle East region is also problematic, in that Turkey could have been placed into Southeastern Europe, a Mediterranean region, or a Southwestern Asia category. For comparative purposes using our present groupings, we chose to place Turkey in the Middle East world region.

All of the African samples except the Democratic Republic of the Congo were administered the ISDP survey in English, and the Moroccan and Ethiopian samples’ surveys contained annotated explanations for some of the most difficult words and phrases as identified in pre-testing sessions. The sample from the Democratic Republic of the Congo was administered the ISDP survey in French. There were two samples from Australia, one from eastern Australia containing college students and one from Western Australia that included college students and community members. The sample from Fiji was collected at the University of the South Pacific, a regional university. Although a large number of participants were from Fiji, a significant number came from the surrounding nations within the Pacific Island region. Consequently, we refer to this nation as the “Fiji and Pacific Islands.” Taiwan and Hong Kong, for statistical purposes, were treated as individual nations.

Overall, this collection of nations and world regions represented a diverse array of ethnic, geographic, and linguistic categories. In total, the samples of the ISDP represent 6 continents, 13 islands, 30 languages, and 56 nations. For some nations (i.e., Australia, Austria, Canada, Chile, United Kingdom, Germany, Israel, Malta, South Korea, Turkey, and the United States), more than one sample was collected. Most samples were comprised of 100 male and 100 female college students, and some included general members of the community. All samples were convenience samples. Most of the samples were recruited as volunteers; some received course credit for participation and others received a small monetary reward for their participation. All samples were administered an anonymous self-report survey, and most surveys were returned via sealed envelope and/or the usage of a drop-box. Return rates for college student samples tended to be relatively high (around 95%), though this number was lower in some cultures. Return rates for community samples were around 50%. Not all participants received the full ISDP survey in samples from Chile, Jordan, South Africa, Fiji, India, and Bangladesh, though all samples received the attachment measure that is the focus of this article. Additional details on the procedures, sampling techniques, and measures of the ISDP can be found in prior studies (e.g., Schmitt, 2005a; Schmitt et al., 2004). For present purposes, we briefly review the translation procedures and particular measures used in this study.

### *Translation Procedures*

Researchers from nations where English was not the primary language were asked to use a translation/back-translation process and administer the ISDP survey in their native language. This procedure typically involved the primary collaborator translating the measures into the native language of the participants and then having a second bilingual psychologist back-translate the measures into English. Differences between the original English and the back-translation were discussed, and mutual agreements were made as to the most appropriate translation (Brislin, 1980). ISDP translators were not professionally trained translators. Overall, the ISDP survey was translated into 30 different languages.

## Short-Term Mating

The SOI (Simpson & Gangestad, 1991) was administered in the ISDP. Items assess sociosexual behaviors (e.g., “With how many different partners have you had sex (sexual intercourse) within the past year?”), desires (e.g., “How often do (did) you fantasize about having sex with someone other than your current (most recent) dating partner?”), and attitudes (e.g., “I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him or her.”). Items were weighted and summed<sup>1</sup> (Cronbach’s  $\alpha = .79$ ).<sup>2</sup>

We measured Relationship Exclusivity with the Sexy Seven scale (Schmitt & Buss, 2000) designed to capture short-term mating in the form of infidelity. Participants reported the accuracy (1 = *extremely inaccurate*, 9 = *extremely accurate*) of items such as “adulterous” (reverse scored), “unfaithful” (reverse scored), and “devoted” in describing themselves in relation to others. Items were summed to create a Relationship Exclusivity scale ( $\alpha = .77$ ).

Also included was the seven-item Short-Term Mating Interests scale (Buss & Schmitt, 1993; Schmitt, 2005a). The measure taps three aspects of short-term mating interest (i.e., Number of Partners desired, Time Known to have sex, and Short-Term Seeking). The items are combined to form an overall level of interest in short-term mating (see Schmitt, 2005a;  $\alpha = .79$ ).

We assessed attempted mate-poaching tendencies with a single item. Participants were asked how true (1 = *not at all*, 7 = *always*) the following statement was: “Have you ever tried to attract someone *who was already in a romantic relationship with someone else* for a short-term sexual relationship with you?”

## Attachment Measure

All samples were administered the two-dimension/four-category measure of adult romantic attachment called the Relationship Questionnaire (Bartholomew & Horowitz, 1991). The measure is composed of four items, one for each attachment style. Participants were asked how much each item described them (1 = *doesn't describe me*, 7 = *very accurately describes me*). The measure allows for the assessment of Model of Self (i.e., attachment anxiety) and Model of Other (i.e., attachment avoidance) dimensions of attachment and can be used for categorizing individuals into one of the four attachment types (for details, see also Griffin & Bartholomew, 1994; Schmitt et al., 2004). In this study, the ratings along each of the four items were used to compute a Model of Self and a Model of Other (Model of Self = Secure + Dismissing – Preoccupied – Fearful; Model of Other = Secure + Preoccupied – Dismissing – Fearful), and these scores were used to place individuals into one of the four attachment types. As suggested in previous studies using this measure (Griffin & Bartholomew, 1994), participants who fell exactly in between two or more attachment styles were deleted and not included in the analyses.

## Results

In Table 1, we report patterns of sexual permissiveness across different attachment styles among men and women.<sup>3</sup> Dismissive men scored significantly higher in sociosexuality ( $M = 51.08$ ,  $SD = 32.97$ ) compared with secure men ( $M = 46.01$ ,  $SD = 28.04$ ), preoccupied men ( $M = 42.48$ ,  $SD = 27.21$ ), or fearful men ( $M = 45.88$ ,  $SD = 30.20$ ), based on Bonferroni pair-wise comparisons. Among women, sociosexuality was significantly higher only in fearful women compared with secure women.

Dismissive men scored higher in relationship infidelity ( $M = 3.42$ ,  $SD = 1.66$ ), as did the fearful men ( $M = 3.27$ ,  $SD = 1.59$ ), compared with secure men ( $M = 3.02$ ,  $SD = 1.52$ ) or preoccupied men ( $M = 3.04$ ,  $SD = 1.53$ ). Unlike the sociosexuality findings, the relationship infidelity results

**Table 1.** Differences (Mean and *SD*) in Permissive Sexuality as a Function of Attachment Style for Men Versus Women.

Permissive sexuality	Secure attachment	Dismissing attachment	Preoccupied attachment	Fearful attachment	<i>F</i> ( $\eta_p^2$ )
Sociosexuality					
Men	46.01 <sup>a</sup> (28.04) ( <i>n</i> = 2,092)	51.08 <sup>b</sup> (32.97) ( <i>n</i> = 1,300)	42.48 <sup>a</sup> (27.21) ( <i>n</i> = 992)	45.88 <sup>a</sup> (30.20) ( <i>n</i> = 781)	14.99 <sup>***</sup> (.01)
Women	26.94 <sup>a</sup> (18.33) ( <i>n</i> = 2,882)	28.27 <sup>a,b</sup> (21.37) ( <i>n</i> = 1,597)	26.54 <sup>a,b</sup> (18.73) ( <i>n</i> = 1,423)	28.53 <sup>b</sup> (21.00) ( <i>n</i> = 1,542)	3.48 (.00)
Relationship infidelity					
Men	3.02 <sup>a</sup> (1.52) ( <i>n</i> = 2,411)	3.42 <sup>b</sup> (1.66) ( <i>n</i> = 1,554)	3.04 <sup>a</sup> (1.53) ( <i>n</i> = 1,133)	3.27 <sup>b</sup> (1.59) ( <i>n</i> = 942)	24.64 <sup>***</sup> (.01)
Women	2.35 <sup>a</sup> (1.31) ( <i>n</i> = 3,221)	2.61 <sup>b</sup> (1.42) ( <i>n</i> = 1,884)	2.44 <sup>a</sup> (1.32) ( <i>n</i> = 1,600)	2.54 <sup>b</sup> (1.36) ( <i>n</i> = 1,820)	18.10 <sup>***</sup> (.01)
Short-term mating interests					
Men	11.38 <sup>a</sup> (7.06) ( <i>n</i> = 1,770)	12.07 <sup>a</sup> (7.47) ( <i>n</i> = 1,102)	11.22 <sup>a</sup> (7.14) ( <i>n</i> = 849)	12.10 <sup>a</sup> (6.81) ( <i>n</i> = 670)	3.54 <sup>*</sup> (.00)
Women	6.58 <sup>a</sup> (6.26) ( <i>n</i> = 2,407)	6.95 <sup>a</sup> (6.66) ( <i>n</i> = 1,343)	6.88 <sup>a</sup> (6.31) ( <i>n</i> = 1,210)	7.67 <sup>b</sup> (6.14) ( <i>n</i> = 1,355)	8.55 <sup>***</sup> (.00)
Attempted mate poaching					
Men	2.34 <sup>a</sup> (1.45) ( <i>n</i> = 2,479)	2.44 <sup>a</sup> (1.49) ( <i>n</i> = 1,607)	2.28 <sup>a</sup> (1.44) ( <i>n</i> = 1,174)	2.30 <sup>a</sup> (1.43) ( <i>n</i> = 953)	2.72 (.00)
Women	1.75 <sup>a</sup> (1.13) ( <i>n</i> = 3,375)	1.76 <sup>a</sup> (1.12) ( <i>n</i> = 1,950)	1.79 <sup>a</sup> (1.17) ( <i>n</i> = 1,681)	1.79 <sup>a</sup> (1.17) ( <i>n</i> = 1,877)	1.39 (.00)

Note. Non-identical superscripts in rows indicate significant differences based on Bonferroni pair-wise comparisons. \**p* < .01. \*\**p* < .001.

in women were similar to those in men, with women who were categorized as having a dismissing attachment style scoring higher in relationship infidelity ( $M = 2.61$ ,  $SD = 1.42$ ) as did fearful women ( $M = 2.54$ ,  $SD = 1.36$ ), compared with secure women ( $M = 2.35$ ,  $SD = 1.31$ ) or preoccupied men ( $M = 2.44$ ,  $SD = 1.32$ ).

Dismissive men scored marginally higher in short-term mating interests ( $M = 12.07$ ,  $SD = 7.47$ ), as did the fearful men ( $M = 12.10$ ,  $SD = 6.81$ ), compared with secure men ( $M = 11.38$ ,  $SD = 7.06$ ) or preoccupied men ( $M = 11.22$ ,  $SD = 7.14$ ). Unlike the sociosexuality findings, the short-term mating interest results in women suggested those who were categorized as having a fearful attachment style scoring higher in short-term mating interests ( $M = 7.67$ ,  $SD = 6.14$ ), compared with secure women ( $M = 6.58$ ,  $SD = 6.26$ ), dismissing women ( $M = 6.95$ ,  $SD = 6.66$ ), or preoccupied women ( $M = 6.88$ ,  $SD = 6.31$ ).

No significant effects of attachment were found for mate poaching, though dismissing men were marginally more likely to short-term mate poach than preoccupied men. In sum, the effects of “categorized” attachment styles on sexuality were slightly varied across the different permissive sexuality measures. Men who were categorized as having a dismissing attachment orientation generally scored higher in permissive sexuality, though positive associations with fearful attachment also were observed for some facets of short-term mating. For women, being categorized as having a fearful attachment was most closely associated with high levels of permissive sexuality.

In Table 2, we present the links of different dimensions of attachment, overall attachment security, and internal working models of attachment with sociosexuality for men and women across 10 major regions of the world, controlling for effects of nation within each region.



**Table 2.** Attachment Dimensions Related to Sociosexuality Across Sexes and Regions.

Sex and region	Secure attachment	Dismissing attachment	Preoccupied attachment	Fearful attachment	Overall security	Model of self	Model of other
<b>Men</b>							
North America (n = 1,342)	.00	.12**	-.06*	.03	-.04	.06*	-.09**
South America (n = 310)	-.03	.04	-.09	.05	-.01	.03	-.11
Western Europe (n = 841)	.02	.18**	-.07	.07	-.07	.09*	-.14**
Eastern Europe (n = 933)	.06	.13**	-.07	-.02	.01	.13**	-.06
Southern Europe (n = 417)	.08	.11*	-.03	.03	-.02	.08	-.04
Middle East (n = 402)	.17**	.17**	-.05	-.04	.03	.18**	-.01
Africa (n = 478)	.08	.02	-.07	-.01	.06	.09	-.00
Oceania (n = 337)	-.03	-.05	-.13*	-.13*	.13*	.09	.01
South/Southeast Asia (n = 181)	.04	.04	-.05	-.11	.08	.12	.04
East Asia (n = 514)	-.01	.05	.07	-.01	-.05	-.01	.01
Worldwide (n = 5,782)	.03*	.10**	-.07**	-.01	.00	.10**	-.06**
<b>Women</b>							
North America (n = 2,407)	-.04	.08**	.02	.08**	-.09**	-.03	-.08**
South America (n = 361)	.07	-.07	.00	.01	.05	-.01	.05
Western Europe (n = 1,460)	.01	.14**	.02	-.03	-.04	.07*	-.03
Eastern Europe (n = 1,172)	.00	-.01	-.04	.01	.02	.01	-.02
Southern Europe (n = 683)	.06	.07	.03	-.03	.00	.06	.03
Middle East (n = 469)	.01	.10	-.01	-.07	.00	.08	-.01
Africa (n = 394)	.10	-.04	.01	-.05	.07	.05	.10
Oceania (n = 462)	-.05	.04	-.02	.11*	-.08	-.04	-.10
South/Southeast Asia (n = 188)	.04	-.01	.16*	.08	-.10	-.12	.07
East Asia (n = 552)	-.04	-.02	.08	.10*	-.09*	-.11*	-.02
Worldwide (n = 8,174)	-.01	.05**	-.01	.02	-.03*	.01	-.04**

\* $p < .01$ . \*\* $p < .001$ .

Dismissing attachment was positively associated with sociosexuality among men from most regions of the world and among women from North America,  $r(2405) = .08, p < .001$ , and Western Europe,  $r(1458) = .14, p < .001$ . Preoccupied attachment was negatively associated with sociosexuality among men from most regions of the world (see third column in Table 2), but preoccupied attachment was not associated with sociosexuality in most cultures, the exceptions being positive associations in South/Southeast Asia,  $r(186) = .16, p < .01$ . Models of Self appeared positively associated with sociosexuality among men in almost all regions, whereas Models of Other were negatively associated with sociosexuality among men in North America,  $r(1340) = -.09, p < .001$ , and Western Europe,  $r(839) = -.14, p < .001$ , consistent with the notion that sociosexuality in men is primarily associated with dismissing attachment.

In Tables 3 through 5, we extend the tests from sociosexuality across other measures of sexual permissiveness. Having an unfaithful sexual personality was linked to dismissing the attachment in both men and women (see Table 3). However, an unfaithful sexual personality displayed additional positive associations with fearful attachment. Among women, these associations were observed almost in all world regions, suggesting infidelity may be more closely associated with negative Models of Other among women across most cultures. Worldwide, short-term mating interests were more strongly linked to dismissing attachment in men,  $r(4893) = .07, p < .001$ , than women,  $r(6892) = .02$ , though the overall links were inconsistent even among men (see Table 4). Short-term mate poaching was linked with all forms of attachment insecurity in women, including Dismissing,  $r(9755) = .05, p < .001$ , Preoccupied,  $r(9755) = .06, p < .001$ , and Fearful attachment,  $r(9755) = .05, p < .001$ . Preoccupied attachment demonstrated the most culturally consistent links with mate poaching among women significantly correlating in North America,

**Table 3.** Attachment Dimensions Related to Relationship Infidelity Across Sexes and Regions.

Sex and region	Secure attachment	Dismissing attachment	Preoccupied attachment	Fearful attachment	Overall security	Model of self	Model of other
<b>Men</b>							
North America (n = 1,434)	-.01	.11**	-.06*	.03	-.04	.06*	-.09**
South America (n = 339)	.02	.12*	-.04	.04	-.04	.07	-.08
Western Europe (n = 1,051)	-.09*	.19**	-.03	.13**	-.15**	.00	-.20**
Eastern Europe (n = 1,180)	-.01	.18**	-.04	.06	-.09**	.07*	-.15**
Southern Europe (n = 476)	.09	.12*	-.06	.06	-.02	.09	-.08
Middle East (n = 475)	-.01	.18**	-.02	.03	-.08	.07	-.12*
Africa (n = 567)	.06	.00	.01	-.03	.04	.04	.04
Oceania (n = 387)	-.08	.01	.03	.07	-.07	-.08	-.06
South/Southeast Asia (n = 284)	.00	-.03	-.13	.00	.08	.05	-.05
East Asia (n = 556)	-.10*	.07	.06	.10*	-.14**	-.09	-.10*
Worldwide (n = 6,776)	-.02	.10**	-.03*	.04**	-.06**	.03*	-.09**
<b>Women</b>							
North America (n = 2,510)	-.05*	.09**	.04	.09**	-.11**	-.04*	-.08**
South America (n = 371)	-.07	.13*	.11	.14*	-.19**	-.10	-.11
Western Europe (n = 1,808)	-.10	.17**	.02	.10**	-.13**	.01	-.12**
Eastern Europe (n = 1,497)	.00	.14**	.01	.09**	-.10**	.02	-.10**
Southern Europe (n = 787)	.03	.12**	.02	.03	-.06	.04	-.05
Middle East (n = 510)	-.01	.12*	.04	.10*	-.11*	-.02	-.09
Africa (n = 429)	.15**	-.14*	-.05	-.07	.17**	.06	.16**
Oceania (n = 516)	.02	.12*	.02	.15**	-.13*	-.03	-.11*
South/Southeast Asia (n = 331)	.09	.07	.05	.15*	-.09	-.03	-.04
East Asia (n = 582)	-.14**	-.04	-.03	.05	-.05	-.09	-.09
Worldwide (n = 9,368)	-.02	.09**	.02*	.07**	-.09**	-.01	-.07**

\* $p < .01$ . \*\* $p < .001$ .

Western Europe, Southern Europe, Middle East, Africa, and South/Southeast Asia. The links between attachment insecurity and mate poaching were much smaller and less consistent across world regions among men (see Table 5).

## Discussion

As would be expected from a Life History perspective, the combination of sex and attachment can only account for a small amount of variance in people's sexuality because the development of sexual strategies is the result of a range of social and ecological factors, sex and attachment being only one interactive source of sexual strategizing (Schmitt, 2005a, 2011). Nevertheless, we were able to show dismissing attachment was linked to sexual permissiveness more in men than in women. Dismissing attachment might facilitate a cold, exploitative approach to mating that is characteristically more male than female (e.g., psychopathy and Narcissism; Jonason et al., 2009; Jonason, Luévano, & Adams, 2012). However, these sex-specific effects appear to be moderated by both the measures used to assess sexual permissiveness and the geographic world region. While we found global effects, these effects appear more driven by results from WEIRD samples (Henrich et al., 2010). Western samples might differ from the others as a function of religious mores surrounding sex, greater exposure to "sexualized" media, or more experience with psychology research. Regardless, our findings suggest the sex-specific links between dismissing attachment and permissive sexuality are likely not cross-cultural universals, often failing to show up in African and Asian cultures.

**Table 4.** Attachment Dimensions Related to Short-Term Mating Interests Across Sexes and Regions.

Sex and region	Secure attachment	Dismissing attachment	Preoccupied attachment	Fearful attachment	Overall security	Model of self	Model of other
<b>Men</b>							
North America (n = 1,156)	-.02	.09**	-.01	.07*	-.07*	.01	-.08*
South America (n = 204)	.07	.01	.10	.04	-.04	-.04	.06
Western Europe (n = 748)	-.03	.17**	-.06	.12**	-.11**	.03	-.17**
Eastern Europe (n = 799)	-.08	.08*	.01	.00	-.08	.00	-.07
Southern Europe (n = 376)	.12*	.10	.04	.02	-.02	.07	.01
Middle East (n = 349)	-.07	.12	.12*	.10	-.17**	-.08	-.08
Africa (n = 350)	.03	-.03	.03	-.06	.04	.02	.07
Oceania (n = 288)	-.02	.03	-.04	-.09	.04	.06	.00
South/Southeast Asia (n = 81)	.11	.09	-.10	-.07	.09	.15	-.01
East Asia (n = 515)	-.01	.03	.20**	.11*	-.16**	-.13**	.03
Worldwide (n = 4,893)	-.01	.07**	.01	.02	-.05**	.01	-.04**
<b>Women</b>							
North America (n = 2,047)	-.04	.04	.08**	.08**	-.10**	-.08**	-.03
South America (n = 266)	.23**	-.02	.04	.04	.06	.05	.11
Western Europe (n = 1,247)	-.03	.12**	.03	.05	-.09**	.00	-.08**
Eastern Europe (n = 990)	-.11**	.04	.08*	.05	-.12**	-.09*	-.05
Southern Europe (n = 628)	-.03	.05	.07	-.02	-.05	-.01	.01
Middle East (n = 356)	.04	-.08	.02	-.10	.08	.02	.12
Africa (n = 289)	.03	-.10	.07	.03	.02	-.09	.09
Oceania (n = 412)	.03	.06	.00	.10	-.06	-.02	-.07
South/Southeast Asia (n = 98)	-.09	.13	.03	.02	-.12	.00	-.10
East Asia (n = 532)	-.07	-.09	.03	.20**	-.10*	-.18**	-.09
Worldwide (n = 6,892)	-.04**	.02	.03*	.05**	-.06**	-.05**	-.04**

\* $p < .01$ . \*\* $p < .001$ .

Although our article was designed to be an “improved” examination, including enhanced sampling and assessment, of the sex-specific attachment–permissiveness links from prior work (Sprecher, 2013), our study was limited. An important caveat to our findings is the limited magnitude of the relationships we report. Null hypothesis testing procedures have been rightly criticized for a number of reasons, such as using arbitrary cut-offs for deciding whether an association was present, regardless of magnitude of effects (Fraley & Marks, 2009; Trafimow, 2003). We addressed this problem by focusing on larger effects (setting alpha at  $p < .01$ ) and by including the partial eta-squared measures of effect size for ANOVAs. What is clear in the case of both significance testing and magnitude of effects is that our revealed effects are both significant and small in size, with few correlations exceeding  $r = .20$  (Cohen & Cohen, 1983). While we are cautious about interpreting such small effects, the size of a correlation/effect does not make it necessarily uninterpretable. Our caution about the size of relationships stems from the fact that most psychological work is at worst atheoretical and at best characterized by proximal (i.e., answering the “what” or mechanistic questions) theoretical models (e.g., Dewitte, 2012; Spanier & Margolis, 1983; Wiederman, 1997). Given strong theoretical frameworks—as we feel we have with evolutionary psychology (see Confer et al., 2010)—even small correlations can be interpreted. Moreover, there must—in theory—be genuine, yet small, associations in psychological science, some of which can be impactful in the world (Prentice & Miller, 1992). Thus, researchers should not automatically dismiss small associations/effects as meaningless. We feel small correlations, as we found, are to be expected from a Life History paradigm, a paradigm that has universal acceptance and broad impact in evolutionary biology (Kaplan & Gangestad, 2005). More importantly, however, we have shown the effects reported by Sprecher (2013) might be both small *and*

**Table 5.** Attachment Dimensions Related to Attempted Mate Poaching Across Sexes and Regions.

Sex and region	Secure attachment	Dismissing attachment	Preoccupied attachment	Fearful attachment	Overall security	Model of self	Model of other
<b>Men</b>							
North America ( <i>n</i> = 1,454)	.03	.07*	.05	.08**	-.08**	-.02	-.04
South America ( <i>n</i> = 437)	.03	.02	-.03	.00	.01	.04	-.02
Western Europe ( <i>n</i> = 1,066)	.09**	.06	.03	-.03	.01	.07*	.04
Eastern Europe ( <i>n</i> = 1,190)	.03	.13**	.03	.04	-.07*	.05	-.05
Southern Europe ( <i>n</i> = 487)	.14**	.05	.00	.01	.03	.07	.03
Middle East ( <i>n</i> = 493)	.16**	.00	.07	.02	.03	.03	.10*
Africa ( <i>n</i> = 660)	.03	.04	.04	.01	-.03	.01	.01
Oceania ( <i>n</i> = 310)	-.03	-.05	.00	.01	.01	-.04	.01
South/Southeast Asia ( <i>n</i> = 291)	.11	-.03	-.05	-.02	.09	.07	.05
East Asia ( <i>n</i> = 514)	-.01	-.05	.07	.07	-.05	-.10*	.02
Worldwide ( <i>n</i> = 6,974)	.06**	.05**	.03*	.03*	-.02	.02	.00
<b>Women</b>							
North America ( <i>n</i> = 2,535)	-.01	.05*	.07**	.07**	-.09**	-.05*	-.03
South America ( <i>n</i> = 581)	.08	.00	.06	.03	-.01	-.01	.05
Western Europe ( <i>n</i> = 1,830)	.03	.06*	.06*	.03	-.05	.00	.00
Eastern Europe ( <i>n</i> = 1,516)	.05	.10**	.02	.00	-.03	.06*	-.02
Southern Europe ( <i>n</i> = 826)	.09*	.03	.08*	.03	-.03	-.01	.05
Middle East ( <i>n</i> = 539)	.09	.04	.20**	.11*	-.11*	-.09	.06
Africa ( <i>n</i> = 528)	.00	-.04	.14**	.10*	-.09	-.13**	.04
Oceania ( <i>n</i> = 443)	.01	.08	.05	.06	-.08	-.02	-.04
South/Southeast Asia ( <i>n</i> = 345)	.13*	-.01	.12*	.03	-.02	-.03	.11
East Asia ( <i>n</i> = 585)	-.08	-.02	.07	.10*	-.10*	-.12*	-.05
Worldwide ( <i>n</i> = 9,755)	.04**	.05**	.06**	.05**	-.05**	-.01	.00

\* $p < .01$ . \*\* $p < .001$ .

localized to Western samples, calling into question the popular assumption that attachment is a fundamentally and universally important variable to account for human sexuality (see also, Rothbaum, Weisz, Pott, Miyake, & Morelli, 2000).

Although our study included many non-WEIRD samples, representing a significant advancement in the cross-cultural science of attachment and permissive sexuality, most respondents in the ISDP were college students, restricting the full extension of our findings across age and multicultural forms (e.g., education and class). A related limitation is that we failed to make any region-specific predictions about the strength of the associations either overall or across the sexes. We concede this point, but we had no compelling rationale for making predictions at the regional level. Future work will be needed to generate hypotheses concerning the mechanisms for global variation in sex, attachment, and mating strategy links. Our goal was to evaluate whether the sex-specific associations Sprecher (2013) found were robust across different geographic world regions, a task our analyses directly addressed.

Like much research on personality and individual differences, our findings also relied on self-reported data from a number of brief measures (but see Haefel & Howard, 2010). There are better measures of sociosexuality (Penke & Asendorpf, 2008) and attachment (Fraley et al., 2000) than those used in the current study, and future assessments with more psychometrically robust measures might be warranted. However, the range of measures we used should have created a sufficiently fine-meshed and wide net to capture the many facets of short-term mating (Schmitt, 2005a). Thus, we feel reasonably confident in our results in terms of self-reported short-term mating desires. Although we view an experimental personality approach as helpful for evaluating attachment–sexuality links, we are uncertain whether this could be done ethically with the questions at

hand. Experimental approaches were also not necessary for observing the links between attachment and multiple indicators of sexual permissiveness as revealed in our samples.

In sum, we replicated the basic mean-level links between attachment and sexual permissiveness across the sexes reported by Sprecher (2013), and we extended those findings by assessing the degree of association (not just mean differences) between men's and women's attachment and permissiveness across 10 major regions of the world (i.e., North America, South America, Western Europe, Eastern Europe, Southern Europe, Mideast, Africa, South/Southeast Asia, East Asia, and Oceania). We also extended the psychological science in this area by examining a wider range of sexual permissiveness concepts than previously used (i.e., sociosexuality, infidelity, short-term mating interests, and short-term mate poaching), and we situated our results in an evolutionary framework (i.e., Life History Theory). We showed that while there are sex-specific effects in the links between attachment and sexual permissiveness, these effects are both small and somewhat localized to WEIRD samples. It appears that despite its wide-ranging emphasis in both developmental psychology and relationship science (Bogaert & Sadava, 2002; Dewitte, 2012; Feeney, Noller, & Patty, 1993; Feeney et al., 2000; Gentzler & Kerns, 2004; Sprecher, 2013), the quality of one's parent-child relationships is a minor (at best) predictor of sexual permissiveness in men and women around the world.

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### Notes

1. Each item of the Sociosexual Orientation Inventory (SOI) composite measure is first weighted using the following formula:  $(5 \times \text{Item 1}) + (1 \times \text{Item 2 [with a cap on Item 2 of 30]}) + (5 \times \text{Item 3}) + (4 \times \text{Item 4}) + (2 \times \text{mean of Items 5, 6, and 7}) = \text{total SOI}$ .
2. We do not examine differences in aspects of SOI because Sprecher (2013) examined this distinction and found it was unimportant.
3. We limited significant  $p$  values to .01 to address concerns with Type I errors created by the large number of tests.

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