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Frances C. Calkins

Sarah Gervais

Gemma Sáez

Meredith J. Martin

M. Meghan Davidson

See next page for additional authors

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Authors

Frances C. Calkins, Sarah Gervais, Gemma Sáez, Meredith J. Martin, M. Meghan Davidson, and Rebecca L. Brock

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Frances C. Calkins,¹ Sarah J. Gervais,¹ Gemma Sáez,²
Meredith J. Martin,³ M. Meghan Davidson,⁴
and Rebecca L. Brock¹

1 Department of Psychology, University of Nebraska-Lincoln, Lincoln, NE, USA

2 Department of Psychology and Anthropology, University of Extremadura,
Badajoz, Spain

3 Department of Psychology, Syracuse University, Syracuse, NY, USA

4 Love Warrior Healing, Lincoln, NE, USA

Corresponding author — Frances C. Calkins, Department of Psychology, University of
Nebraska- Lincoln, 220 Burnett Hall, Lincoln, NE 68588-0308, USA; *email* fcalkins@
huskers.unl.edu

ORCID

Frances C. Calkins <https://orcid.org/0000-0002-8212-8969>

Rebecca L. Brock <https://orcid.org/0000-0001-7826-6421>

Gemma Sáez <https://orcid.org/0000-0003-1605-951X>

Abstract

Sexual objectification (i.e., reducing a person to their appearance, body, or sex appeal and functions) is a significant risk factor for negative health outcomes. In the present investigation, we examined multiple manifestations of objectification (i.e., objectification of others, objectification of self, and objectification by others) in an interpersonal

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context. We merged objectification theory with attachment theory, one of the most prominent theories of close relationships, and propose that sexual objectification can shed light on attachment processes (and vice versa). To bolster this conceptual overlap, we tested this novel, integrated framework across two independent samples of women and men including (a) a sample of 813 undergraduate students—both partnered and single—who completed self-report questionnaires of attachment security and multiple forms of objectification and (b) a sample of 159 committed couples navigating pregnancy who were observed during naturalistic interactions to assess attachment security and completed self-report questionnaires of attachment security and objectification (including partner objectification). Results from both studies demonstrate the utility of our proposed conceptual framework linking attachment insecurity to increased risk for both enacting and experiencing objectification. The most compelling evidence emerged for (a) a link between attachment anxiety and self-objectification with moderate effect sizes across both samples, and (b) an association between a less secure base within the couple relationship during pregnancy and feeling more objectified by one's partner as well as less humanized (i.e., feeling that your partner values you more for your physical attributes and less for your non-physical attributes). **Keywords:** objectification, adult attachment, secure base, couples

Sexual objectification occurs when someone is treated as a sex object, rather than a human being (Fredrickson & Roberts, 1997; Nussbaum, 1995). Common sexual objectification behaviors include body gazes or body commentary (Kozee et al., 2007) that can be critical or seemingly complimentary in nature (Herbozo & Thompson, 2006). Sexual objectification has serious consequences, especially for women, given it fundamentally changes perceptions of the self and others; sexually objectified women are seen more akin to objects or animals and are seen as lacking thoughts and feelings (Loughnan et al., 2010) or interchangeable with similar others (Gervais et al., 2012, see Roberts et al., 2018 for review). However, many studies in this area have examined sexually objectifying perceptions and behaviors directed toward and received from strangers (e.g., street harassment, Calogero et al., 2021; Fairchild & Rudman, 2008). In contrast, researchers have noted that common indicators of objectification such as body valuation (e.g., appreciating someone's sex appeal and bodily appearance) may have markedly different consequences depending upon the relational context in which they occur. For example, "you're looking hot" may be intended and interpreted differently if initiated from a stranger on the street or boss at work compared to a sexual partner in the bedroom. Indeed, research shows that body valuation largely reduces intimate relationship satisfaction (Sáez et al.,

2019; Zurbriggen et al., 2011) but can also improve relationship functioning if people feel their partners value their other attributes as well (e.g., intellect, humor, Meltzer & McNulty, 2014).

Although emerging studies of objectification in couple relationships are informative, this area of research remains in its infancy and would benefit from integrating research on objectification into germinal conceptual frameworks of close relationships. In particular, attachment theory (Bowlby, 1988) holds promise for understanding objectification processes unfolding in couple relationships. Specifically, attachment theory accounts for individual differences in how people connect and relate to others (e.g., seeing someone as fungible or lacking humanity) which could explain increased risk for objectification perpetration and victimization. Further, objectification theory has the potential to fill gaps in attachment theory as it is applied to the study of intimate relationships. Specifically, attachment theory primarily focuses on how experiences with primary attachment figures shape people's concepts of themselves and their partners but focuses much less on the role of socio-cultural factors in interpersonal relationships. Objectification theory (Fredrickson & Roberts, 1997), on the other hand, has been used to understand the relational consequences of living in a cultural permeated with sexual objectification (e.g., Meltzer & McNulty, 2014; Zurbriggen et al., 2011), and this theory acknowledges the critical role of cultural and societal factors (e.g., patriarchy, gender socialization, the media) in interpersonal functioning. In the present study, we investigated the connection between sexual objectification and insecure attachment (i.e., a proclivity to view others as untrustworthy or self as unlovable) in two studies including a sample of women and men undergraduates who varied in relationship status (single and in committed relationships) as well as a community sample of mixed-sex couples who were experiencing pregnancy (representing a relatively high level of commitment). To derive testable hypotheses, we provide a novel integration of objectification and attachment theories.

Objectification Theory

Objectification theory (Fredrickson & Roberts, 1997) suggests that people, primarily women, are sexually objectified or reduced to their appearance, body, or sex appeal and functions (see theorizing from Langton,

2009; Nussbaum, 1995, for related forms of objectification). Sexual objectification occurs in the media (e.g., when the camera lens is focused on sexual body parts) as well as during interpersonal interactions (e.g., when a person stares at a women's sexual body parts). Sexual objectification in interpersonal interactions is thought to start emerging as girls develop reproductively mature bodies in adolescence (Fredrickson & Roberts, 1997) and continues to occur throughout women's lifetimes, though it may take on different forms, depending on the context (e.g., a focus on a "baby bump" during pregnancy, Brock et al., 2021). Although sexually objectifying behaviors can be hostile and negative (e.g., toward women with larger bodies), they often appear as "positively valenced admiration" (Fredrickson & Roberts, 1997, p. 178) or body valuation (Meltzer & McNulty, 2014). Yet, even when conventionally attractive women are reduced to their sexual body parts, several negative outcomes emerge. They are viewed as less competent and warm (Heflick & Goldenberg, 2009), as having fewer thoughts and plans (Loughnan et al., 2010), and are treated as a means toward an end (Gruenfeld et al., 2008) as well as fungible (i.e., interchangeable) with other sexually attractive women (Gervais et al., 2012). Although sexual objectification is sometimes directed toward men (Davidson et al., 2013), it is a common experience for women (Kozee et al., 2007).

In addition to negative social perceptions, sexual objectification from others contributes to individuals experiencing internalized self-objectification, according to objectification theory (Fredrickson & Roberts, 1997). When people self-objectify, they regard their bodily appearance as more important than their other features (e.g., health, intellect, Fredrickson & Roberts, 1997) and often disproportionately focus their attention on their appearance in the form of habitual body surveillance (McKinley & Hyde, 1996). Objectification theory (Fredrickson & Roberts, 1997) posits that self-objectification contributes to immediate consequences—more body shame and appearance anxiety as well as reduced flow and less interoceptive awareness. These short-term consequences set the stage for long-term problems including eating disorders, depression, and sexual dysfunction (Moradi & Huang, 2008; Roberts et al., 2018; Szymanski et al., 2011). Although the findings are sometimes nuanced, the tenets of objectification have been supported for girls and women across the lifespan (e.g., adolescents, Daniels et al., 2020; pregnant women, Brock et al., 2021; middle aged and older women, Watt &

Konnert, 2020) and these processes emerge, regardless of background or identity (e.g., racial/ethnic identity, Daniels et al., 2022; sexual/gender identity; Moradi et al., 2019).

Concerningly, objectification begets objectification. In addition to the health consequences articulated by objectification theory, experiencing sexual objectification and related self-objectification is associated with seeing other people as sex objects (Strelan & Hargreaves, 2005). People experience sexual objectification and direct objectification toward the self and others, perpetuating what Strelan and Hargreaves (2005) referred to as a “circle of objectification” (p. 707). Given our focus on how people think about themselves and others in relationships, we focused on sexual objectification, self-objectification, and other-objectification and their connections to relational attachment in the present work.

Although the interpersonal context has long been theorized as an important consideration for objectification (e.g., Fredrickson & Roberts, 1997; Nussbaum, 1995), few studies have examined sexual objectification in a relational framework (see, e.g., Jiao et al., 2022 as an exception). In particular, the couple relationship is a unique and important context for understanding objectification experiences, particularly given that a sexual relationship is a part of most intimate partnerships (Hazan & Zeifman, 1999). In this unique context, feeling appreciated for one’s physical attributes and attractiveness can be a normal and healthy part of the relationship. Because couples often have humanizing information about their partners (e.g., knowing their partner’s goals, values, and personality), body valuation may not be inherently dehumanizing. However, body valuation has the potential to become dehumanizing if it occurs in the absence of appreciation of one’s partner’s other qualities (e.g., intellect, humor, kindness; Meltzer & McNulty, 2014).

Even in a couples’ context, body valuation may vary depending on several factors, such as the length and commitment of the relationships (e.g., when partners are casually hooking up versus when partners have been committed for a long time; Mahar et al., 2020). Perhaps early on, body valuation is central to the relationship, given less time for developing relationship dynamics (e.g., commitment, closeness, emotional intimacy) beyond the sexual relationship; however, when body valuation is objectifying, this might undermine the developing emotional bond between partners in new relationships (Mahar et al.,

2020). Body valuation might also serve a different function in different stages of relationships. Body valuation in new relationships is adaptive for creating a strong sexual bond with one's partner, whereas more established couples might value one another's bodies to nurture and maintain their sexual relationship (Meltzer & McNulty, 2014). Even for established couples, body valuation might become especially important during particular life events that involve rapid body changes (e.g., pregnancy, Brock et al., 2021). This leaves the question: What puts individuals at risk for both enacting and experiencing objectification or body valuation that is dehumanizing in nature? This phenomenon is inherently interpersonal, yet relational theories are rarely used to understand objectification. To address this issue, we next introduce attachment theory and integrate it with objectification theory.

Applying Attachment Theory to Understand Objectification

Attachment theory is one of the most widely applied conceptual frameworks for understanding how interpersonal relationships contribute to individual health and adaptive functioning (Feeney, 2016; Rholes & Simpson, 2004). Attachment is a multifaceted and complex developmental construct that has been studied across the lifespan; however, in adults, there are two key operationalizations of attachment: (a) an individual's internal working model (IWM) about relationships more generally, and (b) secure base (also referred to as specific pair bonds, affectional bonds, and couple attachment) that develops within a close relationship. A person's IWM, anchored in lifetime experiences with key attachment figures, will impact the secure base developed between partners in a specific relationship. For example, attachment insecurity in one partner can undermine multiple qualities of an intimate relationship (e.g., low connectedness, support, and satisfaction and greater conflict; Li & Chan, 2012) that are essential for forming a secure base in a relationship. On the other hand, a secure base between partners is expected to feed back into each partner's IWM (Arriaga et al., 2018). Although interrelated, we propose that general IWMs and secure base in intimate relationships provide unique insights into objectification processes.

Internal Working Models and Objectification.

IWMs are mental representations of self and others that result from a legacy of caregiving experiences with primary attachment figures. Although relatively stable, they evolve as individuals encounter and navigate new relationships in adulthood (Fraley, 2002) and as couples experience shared life transitions (e.g., from pregnancy to parenting; Simpson et al., 2003). Working models shape cognitive, emotional, and behavioral responses to others: They serve as a general organizational framework for guiding interpersonal behaviors (Collins & Feeney, 2004; Feeney, 2016; Mikulincer & Shaver, 2016). Researchers often focus on two types of insecure IWMs in adulthood, each with robust ties to maladaptive outcomes such as psychopathology (e.g., depression, Feeney et al., 2003) and relationship dysfunction (e.g., conflict, Feeney & Karantzas, 2017). These forms of attachment insecurity include anxiety (i.e., apprehension about abandonment and preoccupation with relationships) and avoidance (i.e., fear of intimacy and mistrust, Kurdek, 2002).

Individuals with insecure IWMs tend to view others as untrustworthy (avoidance) or themselves as unlovable (anxiety) from past mistreatment. These distortions have the potential to increase the probability of both being the target and perpetrator of objectification toward self and others. Regarding experiences of being objectified, attachment insecurity is associated with information-processing biases, such that individuals perceive social events in ways that are consistent with their IWMs. As such, individuals high in attachment insecurity might be more likely to focus on and later recall dehumanizing experiences when they occur (Feeney, 2016). Further, individuals high in attachment insecurity are more likely to experience exploitation and mistreatment (Feeney, 2003). Although our objectifying culture and perpetrators are solely responsible for objectifying behaviors, sexual objectification, particularly in the form of body valuation, can be particularly insidious by coaxing girls and women to acquiesce (Fredrickson & Roberts, 1997). Thus, women high in attachment anxiety who have been socialized in our sexually objectifying culture may engage in behaviors that emphasize their sex appeal (e.g., self-sexualize, Smolak et al., 2014), which can result in more sexual objectification from others. Finally, people may have less humanizing information about others who avoid intimate contact with them (i.e., attachment avoidance) and therefore engage in more sexual objectification.

An insecure IWM might also contribute to self-objectification. For example, emerging research has linked both attachment anxiety and avoidance to greater body surveillance in women (DeVille et al., 2015). This is attributed to heightened fear of rejection and tying self-worth to one's ability to find a romantic partner. People with an insecure IWM may place disproportionate focus on appearing attractive to others, especially potential romantic partners, relative to focusing on other attributes because it gives them a sense of control over how others will treat them. Attachment anxiety could also put women at increased risk for objectification from others and self-objectification (Brassard et al., 2018; Jiao et al., 2022), perhaps due to increased emphasis on body image as an element of self-worth (Lev-Ari et al., 2014). Specifically, attachment anxiety is generally associated with working models focused on self (e.g., I am not loveable or worthy of love; something about me needs to change to gain love from a partner), and individuals high in anxiety tend to desire intimacy and validation and fear rejection and abandonment. Therefore, attachment anxiety might be a particularly salient risk factor for being the target of objectification experiences—either by self or others. This suggestion is consistent with the few studies in the area that have connected attachment insecurity with body surveillance (DeVille et al., 2015) and self-objectification and objectification experiences from others (Brassard et al., 2018; Jiao et al., 2022).

Attachment insecurity also has the potential to increase tendencies to objectify others, which might be particularly salient for individuals who are high in attachment avoidance as they have working models that are largely focused on others (e.g., others cannot be relied upon; Feeney, 2016). Specifically, those high in attachment avoidance tend to limit intimacy and prioritize autonomy and may be resistant to commitment (Birnie et al., 2009). This inclination to increase physical and emotional distance might facilitate objectification through fungibility of others—seeing people as interchangeable with one another (Nussbaum, 1995, 1999). Avoidant individuals might not be comfortable with the degree of emotional closeness required to view others as unique and multifaceted with meaningful personal qualities beyond physical attributes. To our knowledge, no studies to date have examined whether attachment insecurity is associated with objectifying others.

Pair Bonds in Intimate Relationships and Objectification.

Secure base refers to a mutual sense of safety and security that develops between two partners in a committed intimate relationship (Feehey, 2016). Although related to (and influenced by) one's general attachment orientation, a secure base reflects symmetrical and reciprocal attachment processes that are unique to a specific adult relationship. In a parent-child relationship, there is a clear hierarchy such that the parent serves as the caregiver and source of security for the child who seeks comfort when perceiving threats to safety. However, in an adult-adult relationship, each person serves as both a seeker of security when distressed and a provider of support in response to requests for comfort (Crowell et al., 2002). This mutual process results in a secure base between partners which functions as an enduring attachment system that can be drawn upon when navigating stress and adversity.

A defining feature of a secure base is that each member of a dyad feels a unique and non-interchangeable connection with the other person (Marvin et al., 2016). In fact, early conceptualizations of attachment by Ainsworth (1969) and Harlow and Harlow (1965) emphasize the affectional bond (i.e., secure base) that develops between two individuals represents an enduring connection that is unique from all other bonds. Although physical attraction plays a role in intimate relationships, the development of a secure base relies largely on partner qualities such as kindness, responsiveness, and competency— qualities that have nothing to do with physical appearance. In contrast, objectification theory purports that people, often women, can be seen as interchangeable with similar others (i.e., fungibility; Gervais et al., 2012; Nussbaum, 1995, 1999). Individuals who are objectified feel as though they are replaceable with other people or objects and reducible to their body parts and sexual functions rather than being appreciated for being a complex and whole human (Orehek & Weaverling, 2017). As aptly stated by Haslam (2006), dehumanization involves denying a person of identity— a sense of being one's own independent person who is distinguishable from others. In the absence of identity and communal aspects of humanness, they are “deindividuated, lose the capacity to evoke compassion and moral emotions, and may be treated as means toward vicious ends” (p. 254). When conceptualized in this way, it is unlikely that objectification can occur in the context of a strong affectional bond in which each person is

viewed as unique, irreplaceable, multifaceted, and complex. While this is a logical extension of past research (e.g., Jiao et al., 2022), no existing research has examined the association between attachment and objectification within dyads of couples, including with measures of pair bonds and relationship-specific objectification.

The Present Investigation

In the present investigation, we merged objectification theory and attachment theory to determine what puts individuals at risk for both enacting and experiencing objectification in an interpersonal framework across two distinct samples (i.e., college students and pregnant couples). Our central hypothesis was that greater attachment insecurity would be associated with higher levels of objectification. To test this hypothesis, we examined two key forms of attachment— IWMs (i.e., attachment anxiety and avoidance reported by individuals) and secure base (i.e., observed dyadic quality of an intimate relationship)—and three key manifestations of objectification—objectification of others, objectification of self, and objectification by others. We pursued the following research questions:

Research Question 1: Does more attachment anxiety and avoidance predict objectification directed toward others and the self as well as experienced objectification?

Research Question 2: Does secure base in the couple relationship during pregnancy predict other-objectification, self-objectification, and objectification by others?

Research Question 3: Do associations between attachment and objectification vary as a function of gender or intimate relationship status?

In particular, objectification theory suggests that men objectify more than women and women self-objectify more than men (Fredrickson & Roberts, 1997; Roberts et al., 2018), but research reveals few gender differences in objectification processes (Strelan & Pagoudis, 2018; Zurbriggen et al., 2011). Thus, the potential for effects to vary as a function

of gender should be explored.

We examined our general hypothesis across two unique samples of women and men. Study 1 was conducted with a sample of 813 college age students—people in dating relationships and singles—for a preliminary investigation of the link between objectification and attachment (i.e., IWMs, Research Question 1). Study 2 leveraged a sample of 159 mixed-sex couples who participated during pregnancy to conduct a more focused examination of link between attachment and objectification—including partner objectification—in committed intimate relationships (Research Questions 1 and 2). Examining these processes during pregnancy is a strength of this research given that partners navigating pregnancy are, on average, more committed than those in casual sexual relationships (Sagiv-Reiss et al., 2012), but are also not immune to the harmful effects of objectification during a time of rapid bodily changes (see Brock et al., 2021 for a more thorough discussion of this risk). Further, all couples in Sample 2 were comprised of men and women, providing an opportunity to better understand men’s objectification of their women partners, and vice versa, in the context of a committed intimate relationship (Research Question 3). Although all genders can engage in objectification processes, sexual objectification is theorized to be directed from men to women in patriarchal cultures (Fredrickson & Roberts, 1997), and the inclusion of mixed-sex couples allowed us to examine parallel processes in couples. Please refer to **Table 1** for a summary of objectification processes measured across the two samples.

Study 1: Attachment Insecurity and Objectification in Young Adults

Method

Participants and Procedure

Participants were 850 undergraduate students from the University of Nebraska-Lincoln. Data were collected in 2010. A final sample of 813 was obtained after excluding data from 37 participants who identified as a sexual minority (or did not list a sexual orientation) to enhance

Table 1. Objectification Measures in Each Study.

<i>Study 1</i>	<i>Definition and Examples</i>
Objectification of Others (in General)	
Objectification Perpetration of Women	Degree to which participant objectifies other people <i>What ranking do you assign to physical attractiveness (vs. physical coordination)</i>
Objectification Perpetration of Men	
Objectification of Self	
Body Surveillance	Manifestation of self-objectification <i>During the day, I think about how I look many times.</i>
Body Shame	Common consequence of body surveillance <i>I feel ashamed of myself when I haven't made the effort to look my best.</i>
Objectification by Others (in General)	
Body Evaluation	Experience of body evaluation from others (e.g., gazes, comments) <i>How often have you noticed someone leering at your body?</i>
Unwanted Sexual Advances	Experience of unwanted sexual advances from others <i>How often have you been touched or fondled against your will?</i>
Study 2	
Objectification of Self	
Body Surveillance	Manifestation of self-objectification <i>During the day, I think about how I look many times.</i>
Objectification by Others (Specific to Intimate Partner)	
Partner Objectification	The extent that participant feels that their partner values them for their physical qualities <i>How much do you think your partner values you for your body?</i>
Non-Physical Valuation	The extent that participant feels that their partner values them for their non-physical qualities (i.e., low partner objectification) <i>To what extent do you believe your partner values you for your non-physical qualities (e.g., your intelligence, creativity, ambition, kindness, generosity, patience, career success, trustworthiness, ability to solve problems, humor, loyalty)?</i>

internal validity and for consistency with the sample in Study 2 (i.e., comprised of mixed-sex couples). Participants ranged in age from 17 to 38 years old ($M = 19.89$, $SD = 1.99$) with the majority describing themselves as White (89.3%), 3.6% identifying as biracial or multi-racial, 2.5% as Asian American or Pacific Islander, 2.0% as Hispanic, Chicano, Latino, or Latina, 2.0% as Black or African American, 0.1% as Native American or American Indian, and 0.6% designated "other." In addition, 404 individuals (49.7%) were in a committed relationship relative to participants who reported being single (33.1%, $n = 269$); 140 individuals did not report their relationship status (17.2%). Gender was measured using the following categories: female, male, transgender M to F, transgender F to M. Although this approach followed conventions for assessing gender at the time this data was collected (in 2010–2011), sex and gender cannot be disentangled in Study 1. No participants endorsed either transgender category resulting in a sample comprised of 66.2% ($n = 538$) of participants identifying as female and 33.8% ($n = 275$) of participants identifying as male. All procedures and measures were approved by the Institutional Review Board prior to recruitment. Participants were recruited from undergraduate psychology courses and from sorority and fraternity chapters. Specifically, the study was posted online to the psychology department participant pool website, and the fifth author met with Greek chapter presidents who then shared the study information with their members. In addition to the measures included in this paper, the study also included measures outside the scope of the present study which took a total of 45 to 60 minutes to complete for which participants received either course credit or a raffle entry for a \$20 gift certificate.

Measures

Internal Working Model of Attachment.

To assess IWMs of adult attachment, the Experiences in Close Relationships (ECR; Brennan et al., 1998) was administered. The ECR is a 36-item scale in which respondents use a 7-point Likert-scale ranging from 1 (disagree strongly) to 7 (agree strongly) to assess two dimensions of attachment insecurity: anxiety and avoidance. Nine of the 36 items are reverse keyed such that higher scores reflect higher levels of attachment

anxiety and attachment avoidance. Higher levels of attachment anxiety (18 items) are characterized by concern that the individual is not loveable (e.g., “I worry that romantic partners won’t care about me as much as I care about them”). Higher levels of attachment avoidance (18 items) are characterized by concern about being too close to others (e.g., “I prefer not to be too close to romantic partners”). Both the anxiety and avoidance subscales demonstrated good internal consistency in the present study ($\alpha = .91$ and $\alpha = .94$, respectively), and have demonstrated good validity in previous research (Brennan et al., 1998).

Objectification of Others.

The Other-Objectification Questionnaire (OOQ; Strelan & Hargreaves, 2005), an adaptation of the Self-Objectification Questionnaire (SOQ; Noll & Fredrickson, 1998), measures the degree to which participants rank five observable aspects of others’ bodies (i.e., weight, physical attractiveness, muscular definition, measurements, and sex appeal) and five non-observable aspects of others’ bodies (i.e., strength, energy, health, fitness, and coordination) when they think about, or look at other people. Men and women participants were instructed to rank the 10 body attributes separately for women (OOQ-W) and men (OOQ-M), using a 1 (least important) to 10 (most important) rank-order scale; men ranked women and other men and women ranked men and other women. Following Strelan and Hargreaves (2005; see also Noll & Fredrickson, 1998; see also Calogero, 2011; Calogero et al., 2005; Davidson et al., 2015; Lindner et al., 2012), participants who did not utilize a ranking scale (e.g., assigned the same ranking to two items) were coded as missing data (which resulted in a smaller n for the OOQ compared to the other measures). The OOQ has been used and validated in previous research (Strelan & Hargreaves, 2005; Strelan & Pagoudis, 2018). To create other-objectification scores, the rankings of each of the five non-observable items and the five observable items were first separately summed. Non-observable sum scores were then subtracted from observable sum scores separately for perceptions of women (OOQ-W) and men (OOQ-M). Scores can range from -25 to $+25$, with higher scores indicating more other-objectification. Given the large range, scores were divided by 100 to facilitate interpretability in the final tested models.

Body Surveillance and Body Shame.

We assessed an indicator of self-objectification (i.e., body surveillance) and one theorized consequence of self-objectification (i.e., body shame, see Siegel et al., 2021) with the Objectified Body Consciousness Scale (OBCS; McKinley & Hyde, 1996). Participants indicate their agreement with items assessing body surveillance (e.g., “I am more concerned with what my body can do than how it looks”—reverse coded) and body shame (“I would be ashamed for people to know what I really weigh”) on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree) with a not applicable option. Not applicable responses were accounted for by calculating means (i.e., a mean score was created only from the applicable ratings). Appropriate items were reverse-coded such that higher scores reflected more objectification (McKinley & Hyde, 1996). Previous studies have demonstrated that the body surveillance and body shame sub-scales are valid and have strong psychometric properties (McKinley, 1998; McKinley & Hyde, 1996; Moradi & Huang, 2008). Mean body surveillance and body shame scores were calculated and showed good internal consistency ($\alpha = .84$ and $\alpha = .84$, respectively).

Objectification by Others.

To assess experiences being objectified by others, we used the 15-item Interpersonal Sexual Objectification Scale (ISOS; Kozee et al., 2007). The scale assesses the frequency with which people have experienced body evaluation (e.g., How often have you noticed that someone was not listening to what you were saying, but instead gazing at your body or a body part?) and unwanted explicit sexual advances (e.g., “How often has someone made a degrading sexual gesture towards you?”) in the past year on a 5-point Likert-type scale ranging from 1 (never) to 5 (almost always). The versions completed by women and men were identical, except that “breasts” was replaced with “chest” on the second item for men (Davidson et al., 2013; Kozee et al., 2007). Other studies show that the ISOS is a psychometrically sound and valid measure of instances of sexual objectification (Davidson et al., 2013; Kozee et al., 2007). In the current study, items were averaged, and internal consistency reliability was good for the total scale ($\alpha = .94$), body evaluation subscale ($\alpha = 0.94$), and unwanted explicit sexual advances subscale ($\alpha = .87$).

Data Analysis

When scoring the measures, which each had high internal consistency, we used person mean imputation (i.e., each person's mean across available responses is used when computing the composite score) to address item-level missing data, which was minimal (<3%). This is a widely used and recommended approach for addressing missing data at this level (e.g., Newman, 2014). Missing data at the composite level were addressed using a robust version of full information maximum likelihood estimation (FIML) to retain all cases despite missing data (Enders, 2010) and produce robust standard errors to address non-normality; covariance coverage in the tested model (i.e., proportion of data available for a combination of any two variables) ranged from .49 to .99. Data were analyzed using Mplus software (Muthén & Muthén, 2010). Path analyses were conducted such that each facet of objectification (i.e., self-objectification, objectification of others, and reported experiences of sexual objectification) was regressed on each dimension of attachment (i.e., attachment anxiety and avoidance) as well as on control variables (i.e., relationship status, age, and gender). There were no multicollinearity concerns ($r_s < .70$ among predictors). As expected for a just identified model, global fit statistics reflect perfect fit and are therefore not reported.

We controlled for age, relationship status (coded as a binary variable; 1 = in serious, committed relationship; 0 = not in serious, committed relationship), and gender (women, men)—in the tested models. We also considered relationship status, year in school, racial and ethnic minority status, and gender; however, these were not correlated with study variables (Becker et al., 2016).

Finally, supplemental multiple group analyses were completed to pursue Research Question 3 and identify the extent to which hypothesized effects of attachment on objectification varied based on gender of the participant (i.e., women, men) and relationship status (i.e., single versus in a relationship). Because we used the MLR estimator in Mplus, we computed Satorra–Bentler scaled Chi-squared difference tests which account for scaling corrections (Satorra & Bentler, 2010).

Results

Correlations and descriptive statistics across the entire sample are reported in **Table 2**. Descriptive statistics were also computed separately for women and men, and means were compared by gender (**Table 3**). There were no significant gender differences in attachment anxiety or avoidance. On average, women reported higher levels of objectifying men (relative to men objectifying other men), self-objectification in the form of both body surveillance and body shame, and objectification by others in the form of body evaluation and unwanted sexual advances.

Results of path analyses are summarized in **Figure 1**, and detailed model results are reported in Supplemental Table 1. Consistent with our general hypothesis, and providing insight into Research Question 1, both dimensions of attachment insecurity—*anxiety* and *avoidance*—predicted several facets of objectification. The largest effect sizes emerged for attachment anxiety and both indicators of self-objectification: body surveillance ($\beta = .27$) and body shame ($\beta = .31$). Attachment anxiety was also associated with objectification perpetration directed toward women ($\beta = .10$) and reports of unwanted sexual advances by others ($\beta = .13$); however, effects were small in magnitude. Attachment avoidance was

Table 2. Correlations and Descriptive Statistics—Study #1 College Students.

	1	2	3	4	5	6	7	8	9	10	11
1. Internal Working Model: Avoidance	-										
2. Internal Working Model: Anxiety	0.18**	-									
3. Objectification Perpetration of Women	0.13**	0.04	-								
4. Objectification Perpetration of Men	0.09*	0.11*	0.55**	-							
5. Self-Objectification: Body Surveillance	0.29**	0.08*	0.25**	0.20**	-						
6. Self-Objectification: Body Shame	0.34**	0.18**	0.11*	0.16**	0.54**	-					
7. Objectification by Others: Body Evaluation	0.07	0.04	0.05	0.17**	0.22**	0.16**	-				
8. Objectification by Others: Sexual Advances	0.16**	0.09*	0.03	0.11*	0.20**	0.18**	0.57**	-			
9. Relationship Status	-0.05	-0.34**	0.06	-0.02	-0.05	0.01	0.08*	0.05	-		
10. Age	-0.02	-0.10**	-0.01	-0.05	-0.03	0.01	0.05	0.12**	0.07	-	
11. Gender	0.05	-0.07	-0.09	0.17**	0.20**	0.14**	0.52**	0.27**	0.10*	-0.01	
<i>M</i>	3.70	3.00	3.09	-2.20	4.63	3.49	2.49	1.57	0.60	19.89	3.66
<i>SD</i>	0.94	1.03	12.67	11.96	1.11	1.10	0.79	0.66	0.49	1.99	0.47
<i>N</i>	796	796	477	482	788	787	783	783	673	807	813

The shaded box contains correlations between measures of attachment and objectification processes. Bolded correlations were significant at $p < .05$ (** $p < .01$; * $p < .05$).

Table 3. Descriptive Statistics by Gender—Study #1 College Students.

Study Variables	Women			Men			Test of Mean Difference Independent t-test
	M	SD	N	M	SD	N	
Internal Working Model: Anxiety	3.73	0.96	524	3.63	0.90	272	t(794)=-1.47
Internal Working Model: Avoidance	2.95	1.08	524	3.10	0.93	272	t(794)=1.96
Objectification Perpetration of Women	2.34	13.27	327	4.73	11.14	150	t(475)=1.92
Objectification Perpetration of Men	-0.87	11.39	332	-5.13	12.68	150	t(480)=-3.67
Self-Objectification: Surveillance	4.78	1.08	521	4.32	1.11	267	t(786)=-5.59
Self-Objectification: Body Shame	3.60	1.15	520	3.28	0.98	267	t(785)=-3.83
Objectification by Others: Body Evaluation	2.78	0.65	518	1.91	0.72	265	t(781)=-16.94
Objectification by Others: Sexual Advances	1.70	0.66	518	1.32	0.58	265	t(781)=-7.93

Bold denotes significant ($p < .05$) mean differences between women and men. On average, objectification processes were higher for women relative to men on all measure of objectification with the exception of perpetration toward women.

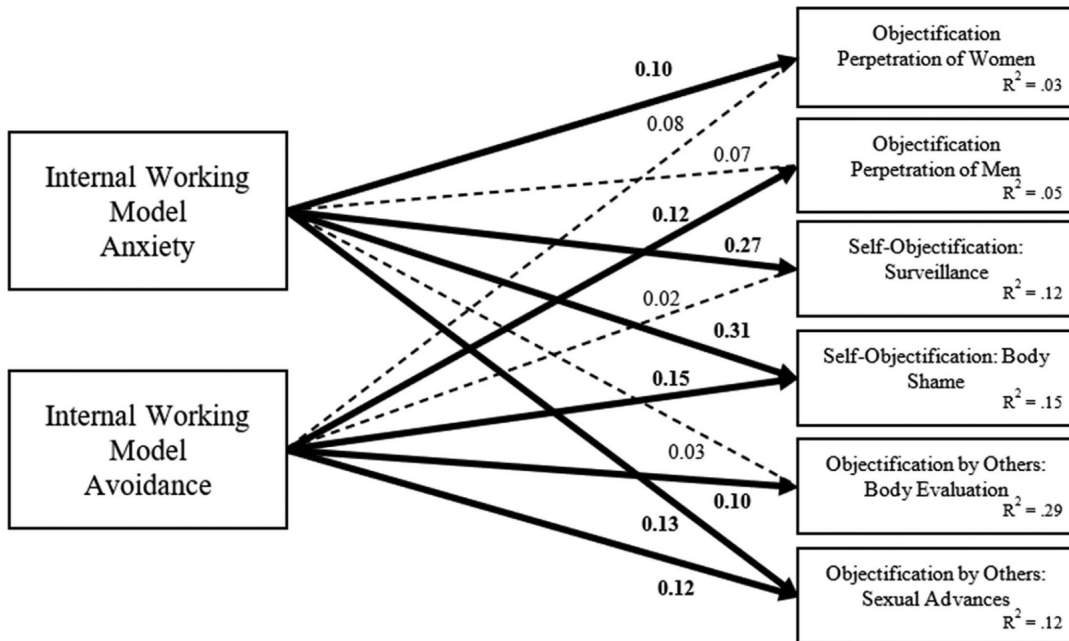


Figure 1. Model Results—Study #1 College Students. Note. Standardized estimates are reported. Bold lines represent significant paths at $p < .05$; dashed lines did not reach significance. Residuals of all outcome variables were covaried. Predictors, including attachment variables and controls (i.e., age, relationship status, and gender), were also covaried.

associated with self-objectification in the form of body shame, but to a lesser degree than attachment anxiety ($\beta = .15$). Attachment avoidance was also associated with objectification perpetration directed toward men ($\beta = .12$) and reports of being objectified by others in the form of body evaluation ($\beta = .10$) and unwanted sexual advances ($\beta = .12$); effects were relatively small in magnitude.

Supplemental Multiple Group Analysis (Research Question 3)

A Chi-squared difference test revealed that a model with the parameters free to vary across women and men was not a better fit than a model with parameters constrained to be equal for men and women, $\chi^2(30) = 42.24$, $p = .068$. Thus, we concluded that despite gender differences in levels of key constructs, there were no significant gender differences in associations between attachment and objectification. In contrast, a model with parameters free to vary across participants who reported being single versus in a committed relationship was a better fit than a constrained model, $\chi^2(30) = 65.97$, $p < .001$, suggesting that some effects significantly varied across the two groups (note that this analysis was conducted with a subset of participants who had reported their relationship status, $n = 673$). Thus, we conducted a series of post hoc analyses examining differences between specific paths but identified only 2 out of 12 paths that were in fact significantly different. First, the association between attachment avoidance and objectification of women was larger for single participants ($\beta = .23$, $p = .001$) than participants in committed relationships ($\beta = .002$, $p = .978$), $\chi^2(1) = 5.72$, $p = .017$; this link was only significant for single participants. Second, the association between attachment avoidance and perceived body evaluation by others was larger for participants in a committed relationship ($\beta = .19$, $p < .001$) than single participants ($\beta = -.05$, $p = .397$), $\chi^2(1) = 10.58$, $p = .001$; this link was only significant for participants in committed relationships.

In summary, for Research Question 1, we found evidence consistent with our general hypothesis: more IWMs of attachment anxiety and avoidance predicted more objectification (of others, of self, and by others). Although there were a few exceptions, we found that these relations held for women and men (addressing Research Question 3). We next examined our general hypothesis including Research Questions 1, 2, and 3 in Study 2 with a sample of committed couples navigating pregnancy.

Study 2: Objectification in Committed Couples

Method

Participants and Procedure

Procedures were approved by the University of Nebraska–Lincoln Institutional Review Board. Participants were recruited using flyers and brochures. The following criteria were required to be eligible: (a) 19 years of age or older (legal age of adulthood where the research was conducted), (b) English speaking, (c) pregnant at the time of the initial appointment, (d) both partners are biological parents of the child, (e) expecting only one child, and (f) in a committed intimate relationship and cohabiting. Certain eligibility criteria (e.g., biological parents) were selected as part of a larger longitudinal study of intergenerational transmission of psychopathology. One-hundred and sixty-two heterosexual couples enrolled; however, three couples were excluded due to either ineligibility or invalid data for a final sample of 159 couples (159 women and 159 men).

Couples had dated an average of 81.90 months ($SD = 49.59$) and cohabited an average of 61.00 months ($SD = 41.80$); most were married (84.9%). The majority of women were in the second (38.4%) or third (58.5%) trimester of pregnancy. Participants were primarily White (89.3% of women; 87.4% of men); 9.4% of women and 6.4% of men identified as Hispanic or Latino. On average, women were 28.67 years of age ($SD = 4.27$) and men were 30.56 years of age ($SD = 4.52$). Annual joint income ranged from under \$9,999 to more than \$90,000 with a median joint (household) income of \$60,000 to \$69,999. Near three-fourth of participants were employed at least 16 hours per week (74.2% of women; 91.8% of men). Modal education was a bachelor's degree (46.5% of women; 34.6% of men).

Data were collected from both partners during a 3-hour laboratory appointment (between 2016 and 2017). Couples completed a series of procedures, some of which are beyond the scope of the present study. Following the dyadic interaction tasks, partners were escorted to separate rooms to complete the clinical interviews and self-report questionnaires and did not interact with one another until the procedures were

complete. Participants were compensated \$50 (for a total of \$100 per couple) for attending the appointment.

Measures

Internal Working Models of Attachment.

The Relationship Scales Questionnaire (RSQ; Griffin & Bartholomew, 1994) was used to measure IMWs. This self-report questionnaire directs respondents to consider how they feel about close relationships in general, both past and present, using a scale ranging from 1 (not at all like me) to 5 (very much like me). To obtain scores of attachment avoidance (e.g., “I find it difficult to trust others completely”) and anxiety (e.g., “I often worry that romantic partners won’t want to stay with me”), we factor analyzed items from the RSQ, extracting two factors as recommended by Kurdek (2002). Sum scores were calculated, and the internal consistency of each scale was excellent for the avoidance scale ($\alpha = .86$; 16 items; possible range 16–80) and the anxiety scale ($\alpha = .86$; 10 items; possible range 16–80). The RSQ has demonstrated excellent validity in past research (Griffin & Bartholomew, 1994).

Secure Base in the Couple Relationship.

Couples were observed for approximately 20 minutes to measure attachment security between partners. The task involved one partner discussing something they would like to change about themselves with their partner. This task was adapted from a standardized protocol often used in couples’ research to assess behaviors romantic partners display during supportive interactions (Pasch & Bradbury, 1998). Participants were instructed to pick a topic that was personal (i.e., habits, career, friendships) and to refrain from discussing a topic pertaining to their relationship. Once one partner (i.e., “seeker”) had chosen a topic, and it was determined that it did not pertain to the couple’s relationship, the couple was instructed to spend 10 minutes discussing that topic. The other partner (i.e., “provider”) was told to respond however they wanted during this time, but that they were expected to be involved in some way during the discussion. Partners took turns discussing an identified issue. A team of trained coders rated secure base qualities observed during

partner interactions consistent with a coding system established and validated by Crowell et al. (1998).

Secure base provision scores reflect whether the provider was tuned into the seeker's attachment needs during the distressing topic discussion and whether the provider responded in a way that helped to regulate the seeker. Five dimensions were rated using a unique scale of 1 (low) to 7 (high). For example, for the interest dimension, the rating scale ranged from 1 (provider shows no interest in seeker) to 7 (highly interested and actively encouraged the seeker to express needs). Raters demonstrated adequate interrater reliability (single-measures intraclass correlation coefficient, ICC, across 25% of double-coded cases) for each of the five dimensions including: (1) interest (i.e., good listening and encouragement of seeker to express thoughts and feelings; ICC = .65 for women; ICC = .67 for men), (2) recognition of partner's distress (i.e., awareness of the seeker's distress, needs, and concerns; ICC = .64 for women; ICC = .68 for men), (3) interpretation of partner's distress (i.e., correctness in understanding seeker's concerns; ICC = .60 for women; ICC = .61 for men), (4) responsiveness to distress (i.e., expressions of desire to help and effectiveness in comforting seeker; ICC = .74 for women; ICC = .72 for men), (5) overall pattern of secure base provision (i.e., sensitivity to seeker's distress, understanding of problem, and comfort provided; ICC = .72 for women; ICC = .73 for men). Scores across these dimensions demonstrated high internal consistency ($\alpha = .97$ for men and $.97$ for women) supporting aggregation into an overall score of secure base provision for each partner.

Secure base seeking scores reflect whether the seeker presented as open and vulnerable throughout the discussion and effectively signaled the need for attachment support. Codes were made on five dimensions rated on the same scale of 1 to 7 used for provision. Raters demonstrated adequate interrater reliability (across 25% of double-coded cases) across these dimensions including: (1) initial signal of distress (i.e., clarity and intensity of first instance of distress and need; ICC = .70 for women; ICC = .75 for men), (2) maintenance of distress signal (i.e., how actively and persistently the signal for attachment support was maintained during the discussion; ICC = .72 for women; ICC = .75 for men), (3) approach to attachment figure (i.e., clear and direct expression of need for support, not just distress; ICC = .84 for women; ICC = .75

for men), (4), ability to be comforted (i.e., access to attachment support appears to alleviate distress; ICC = .72 for women; ICC = .75 for men), (5) overall pattern of secure base seeking (i.e., how secure seeker appeared to be in the relationship overall; ICC = .78 for women; ICC = .83 for men). Scores across these dimensions demonstrated high internal consistency ($\alpha = .87$ for men and .88 for women) supporting aggregation into an overall score of secure base seeking by each partner.

Body Surveillance.

The OBCS (McKinley & Hyde, 1996) is a 24-item, self-report questionnaire designed to assess self-objectification via surveillance, body shame, and control. Of the three subscales, the present study utilized the 8-item surveillance subscale as a manifestation of self-objectification, which demonstrated good internal consistency in the present study ($\alpha = .82$). Please refer to Study 1 OBCS description for scoring and validity information for the body surveillance scale.

Objectification by Others (Intimate Partner).

To assess the degree to which participants felt objectified by their intimate partners, we utilized two items adopted from a larger measure used by Meltzer and McNulty (2014) which have been used in previous research on objectification and de/humanization in intimate relationships (Sáez et al., 2019). To assess the extent to which participants perceived partner objectification, we asked participants to rate the single item: "How much do you think your partner values you for your body?" on a scale from 1 (not at all) to 5 (completely). To further assess de/humanizing forms of valuation, we examined non-physical valuation by partner by asking participants to rate the single item: "To what extent do you believe your relationship partner values you for your non-physical qualities (e.g., intelligence, fun, creativity, ambition, kindness, generosity, patience, career success, trustworthiness, ability to solve problems, humor, loyalty, and supportiveness)?" on a scale from 1 (not at all) to 5 (completely); thus, higher scores on this scale reflect less objectification/more humanization.

Data Analysis

Data analytic procedures largely paralleled those used in Study 1 (e.g., MLR estimator, Mplus software). Item-level missing data was minimal (<1%). Covariance coverage in the tested models ranged from .92 to 1.00. Although composite scores were calculated for all questionnaires, we created a latent variable of secure base using the four observed scores (i.e., secure base seeking by women and by men and secure base provision by women and by men)—to tap into the underlying dyadic quality of secure base in the couple relationship. Each facet of objectification was regressed on measures of attachment (i.e., attachment anxiety and avoidance in model 1, secure base latent variable in model 2) as well as on one control variable (i.e., age). There were no multicollinearity concerns (given r s < .70 among predictors).

Consistent with recommended procedures for analyzing interdependent dyadic data (Kenny, 2018), the couple was examined as the unit of analysis, and both actor (e.g., Man X1 → Man Y1; Woman X2 → Woman Y2) and partner (e.g., Man X1 → Woman Y2; Woman X2 → Man Y1) paths were tested. Residuals of outcome variables were covaried to account for shared method variance and interdependence within dyads. We also tested for indistinguishability of paths across partners by implementing equality constraints across parallel paths (e.g., women's attachment → women's objectification; men's attachment → men's objectification). This was compared to a model with the paths free to vary (i.e., significant differences in paths across partners). Given the sample was comprised of mixed-sex, cisgender couples, this also served to test for gender differences.

Results

Correlations and descriptive statistics are reported in **Table 4**. We tested for gender differences in mean levels of study variables as reported in **Table 5**. On average, women were higher in attachment anxiety, and men were higher in attachment avoidance. In contrast to results of Study 1, suggesting that women had higher mean levels of objectification processes, there were no significant mean gender differences in

Table 4. Correlations and Descriptive Statistics—Study #2 Committed Couples.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Secure Base: Man Seeking	-															
2. Secure Base: Woman Seeking	0.39**	-														
3. Secure Base: Man Providing	0.47**	0.38**	-													
4. Secure Base: Woman Providing	0.39**	0.36**	0.48**	-												
5. IWM Avoidance: Women	-0.23**	0.03	-0.26**	-0.13	-											
6. IWM Avoidance: Men	-0.11	-0.01	-0.11	0.03	0.17*	-										
7. IWM Anxiety: Women	-0.12	-0.05	-0.13	-0.09	0.45**	0.22**	-									
8. IWM Anxiety: Men	-0.24**	0.13	-0.16	-0.06	0.22**	0.52**	0.34**	-								
9. Partner Obj.: Women	0.06	-0.16	-0.03	0.08	0.06	-0.08	0.30**	0.00	-							
10. Partner Obj.: Men	0.08	0.02	-0.05	0.11	-0.03	0.09	-0.07	0.10	-0.01	-						
11. Non-Physical: Women	-0.13	-0.21*	-0.21**	-0.20*	-0.06	0.03	-0.14	-0.06	-0.09	-0.07	-					
12. Non-Physical: Men	-0.12	-0.27**	-0.16	-0.18*	0.00	-0.02	-0.06	-0.08	-0.08	-0.02	0.10	-				
13. SO Surveillance: Women	0.14	0.18*	0.18*	0.23**	-0.22**	-0.09	-0.22**	-0.09	-0.16*	0.11	0.17*	0.04	-			
14. SO Surveillance: Men	0.07	-0.08	0.05	0.06	-0.15	-0.21**	-0.10	-0.18*	0.00	-0.15	0.05	0.05	0.13	-		
15. Age: Women	0.15	0.26**	0.16	0.06	-0.07	-0.15	-0.11	0.02	-0.01	0.12	-0.21**	-0.20*	-0.04	-0.09	-	
16. Age: Men	-0.04	0.19*	-0.01	-0.01	0.07	0.01	0.07	0.30**	-0.01	0.14	-0.09	-0.19*	-0.03	-0.11	0.65*	-
<i>M</i>	4.27	4.39	4.90	4.94	38.48	40.53	20.49	18.99	3.67	3.03	3.44	3.41	4.66	4.57	28.67	30.56
<i>SD</i>	1.00	1.06	1.36	1.39	9.91	9.98	7.16	6.95	0.97	0.89	1.06	1.14	0.58	0.65	4.27	4.52
<i>N</i>	153	148	154	154	159	159	159	158	158	157	159	159	159	159	159	159

Shaded boxes represent correlations between measures of attachment and objectification processes. Bolded correlations were significant at $p < .05$ (** $p < .01$; * $p < .05$). The four observed secure base scores were ultimately combined into a latent variable in the final tested model. IWM = internal working model. SO = self-objectification. Obj. = objectification.

Table 5. Descriptive Statistics by Gender—Study #2 Committed Couples.

Study Variables	Women			Men			Test of Mean Difference Paired sample <i>t</i> -test
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	
Internal Working Model: Anxiety	20.46	7.17	158	18.99	6.95	158	t(158)=0.34
Internal Working Model: Avoidance	38.48	9.91	159	40.53	9.98	159	t(159)=0.17
Self-Objectification: Surveillance	3.69	0.97	156	3.03	0.89	156	t(156)=-0.01
Partner Objectification	3.44	1.06	159	3.41	1.14	159	t(159)=0.10
Non-Physical Valuation	4.66	0.58	159	4.57	0.65	159	t(159)=0.13

Bold denotes significant ($p < .05$) mean differences between women and men. Because women and men were partnered (i.e., couples), we used a paired sample *t*-test to address interdependence. There were no significant differences in objectification processes between women and men in this sample of committed couples; however, on average, women had higher levels of attachment anxiety and men had higher levels of attachment avoidance.

objectification as reported by participants in committed intimate relationships. That is, partnered men and women had similar levels of self-objectification in the form of body surveillance, partner objectification, and non-physical valuation.

Preliminary Test of Indistinguishability of Paths Between Dyad Members

Results of model comparisons are provided in **Table 6**. These results guided model specification for the primary analyses. For the IWM model, actor paths from attachment anxiety to self-objectification were allowed to freely vary across partners (women and men) given evidence that the association between attachment anxiety and self-objectification in the form of body surveillance was significantly larger for women partners than men partners. In contrast, there was no evidence of significant differences between partners for all other paths in the model and, as such,

Table 6. Indistinguishability of Specific Paths in the Study #2 Model (with Dyads).

	χ^2 (1)	<i>p</i>	<i>Indistinguishable</i>
Secure Base → Partner Objectification	0.03	0.855	Yes (Fix)
Secure Base → Body Devaluation	2.68	0.102	Yes (Fix)
Secure Base → Self-Objectification	0.17	0.681	Yes (Fix)
IWM Anxiety → Partner Objectification			
Actor	1.12	0.290	Yes (Fix)
Partner	0.04	0.838	Yes (Fix)
IWM Anxiety → Non-Physical Valuation			
Actor	0.35	0.553	Yes (Fix)
Partner	0.03	0.873	Yes (Fix)
IWM Anxiety → Self-Objectification: Surveillance			
Actor	4.74	0.030	No (Free)
Partner	0.21	0.657	Yes (Fix)
IWM Avoidance → Partner Objectification			
Actor	0.00	0.961	Yes (Fix)
Partner	0.01	0.914	Yes (Fix)
IWM Avoidance → Non-Physical Valuation			
Actor	0.11	0.745	Yes (Fix)
Partner	0.33	0.564	Yes (Fix)
IWM Avoidance → Self-Objectification			
Actor	1.77	0.183	Yes (Fix)
Partner	0.88	0.348	Yes (Fix)

Paths were tested for indistinguishability across men and women.

IWM = internal working model.

Actor = within partner effect (e.g., women's IWM anxiety predicting women's Partner Objectification).

Partner = across partner effect (e.g., women's IWM anxiety predicting men's Partner Objectification).

Yes (Fix) = paths were fixed to be equal across partners given evidence of indistinguishability (i.e., paths were not allowed to freely vary across partners).

self-objectification, and this was a moderate effect size ($\beta = .35$). In addition, participants (regardless of gender) who were higher in attachment avoidance reported feeling less valued for non-physical (humanizing) attributes by one’s partner (women: $\beta = -.17$; men: $\beta = -.16$). Full unstandardized model results are presented in Supplemental Table 2.

Research Question 2: Does secure base in the couple relationship during pregnancy predict other-objectification, self-objectification, and objectification by others?

This model demonstrated adequate fit: $\chi^2 (29) = 38.691, p = .108, CFI = .944, RMSEA = .046, SRMR = .048$. Factor loadings for the latent secure base variable were all salient and significant (.58 for man seeking; .63 for woman seeking; .72 for woman providing; .64 for man providing). Standardized parameter estimates are reported in **Figure 3**. A greater secure base observed during interactions between partners was associated with feeling less partner objectification (women: $\beta = -.28$; men: $\beta = -.26$) and greater valuation of non-physical attributes (women: $\beta = .21$; men: $\beta = .19$). The association between secure base and self-objectification was not significant. Full unstandardized model results are presented in Supplemental Table 3.

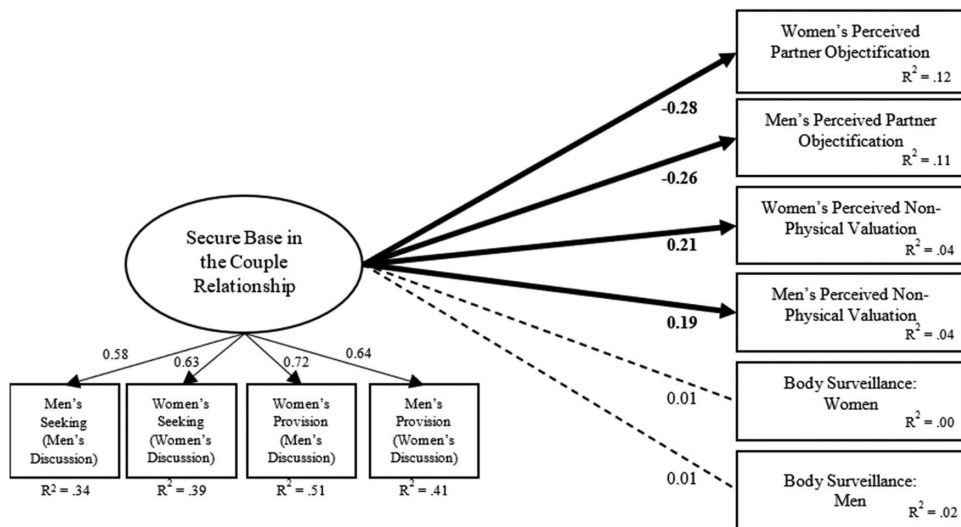


Figure 3. Model Results—Study #2 Pregnant Couples—Secure Base. Note. Standardized estimates are reported. Bold lines represent significant paths at $p < .05$; dashed lines did not reach significance. Residuals of all outcome variables were covaried. Predictors, including secure base and age (i.e., control variable), were also covaried.

Summary and Concluding Discussion

The present investigation embraced a multi-method and multi-sample approach to understanding attachment and objectification in an interpersonal context. Our integrated conceptual framework merging objectification theory (Fredrickson & Roberts, 1997) with attachment theory (Bowlby, 1988) was applied across two independent samples (i.e., college students and pregnant couples) to determine whether IWMs of relationships and secure base processes in couple relationships are associated with multiple manifestations of objectification. Despite these potential connections, limited research has examined the relations between insecure attachment and objectification of self and others. The present findings, derived from a sample of undergraduate students and a community sample of committed, pregnant couples completing multiple measures of attachment and objectification, support theoretical foundations suggesting that attachment insecurity and objectification are related interpersonal constructs. Most notably, attachment anxiety emerged as a robust correlate of self-objectification (i.e., medium effect sizes across samples and multiple indicators of self-objectification). Further, a less secure base in the couple relationship had close ties with key processes thought to underlie partner objectification (i.e., feeling that your partner values you more for your physical attributes and less for your non-physical attributes). Collectively, results provide preliminary evidence for our general hypothesis— that greater attachment insecurity would be associated with higher levels of objectification—and show how attachment theory can be applied to extend and elaborate on objectification theory in critical ways (Fredrickson & Roberts, 1997), and fill a potential gap in attachment theory which tends to overlooks socio-cultural factors. We now turn to a detailed discussion of the results.

Replicating past research with an undergraduate sample (Brassard et al., 2018; DeVille et al., 2015; Jiao et al., 2022) and extending research to a community sample of pregnant couples, attachment anxiety was associated with self-objectification observed across both samples. People with IWMs that reflect high levels of attachment anxiety may see themselves as less lovable and anticipate rejection from others, and thus might be more likely to persistently monitor their outward appearance and experience shame when they feel their body fails to meet ideal standards of beauty.

Regardless, the present work suggests that self-objectification could relate to managing perceptions of self in their relationships with others in hopes of influencing how they are treated by their partners. Further, results of Study 1 suggest that two forms of attachment insecurity— anxiety and avoidance—are associated with the perpetration of objectification toward others as well as experiencing objectification from others (e.g., unwanted sexual advances). Perhaps individuals high in attachment insecurity, such as being preoccupied by seeking (i.e., attachment anxiety) or rejecting (i.e., attachment avoidance) closeness from important others, have fewer opportunities to receive and share humanizing information that may contribute to their placing high levels of importance upon physical attributes in romantic relationships.

Results of Study 2 suggest that a more secure base observed between partners during difficult conversations during pregnancy is associated with key processes underlying objectification in intimate relationships. Specifically, couples demonstrating less secure base felt more valued for their bodies and less for their non-physical, humanizing attributes, a combination that is considered objectifying in nature. Objectification theorists and researchers suggest that fungibility— seeing people as interchangeable with similar others— is a key aspect of objectification (e.g., Gervais et al., 2012; Nussbaum, 1995, 1999). It is unlikely that objectification can occur in the context of a strong affectional bond in which each person is viewed as unique and irreplaceable and as multifaceted and complex individuals (i.e., secure base). In contrast, weaker bonds may contribute to a relationship that is ripe for objectification processes, perhaps due to increased fungibility. Further, couple relationships with an enduring secure base are characterized by communal norms such that each person demonstrates a basic concern for the welfare of their partner and the relationship and score keeping is limited (Bartz & Lydon, 2008; Clark & Jordan, 2002; Williamson & Clark, 1989). This could create a context in which physical valuation from a partner is not inherently detrimental (Meltzer, 2020), which might be especially important for individual and relational health during pregnancy when women are experiencing rapid body changes. However, if there is insecurity in the couple relationships, leading to less communal norms and more exchange expectations, this could create a context within which objectification, as a dehumanizing form of body valuation, is more likely to occur (Wang et al., 2022).

Our exploration of gender differences also shed light on how attachment and objectification operated similarly and at times differently for women and men. Objectification theory (Fredrickson & Roberts, 1997) suggests that, due to living in a culture that persistently sexually objectifies girls and women, women internalize objectified views of the self in order to exert some control in their interactions with others. As a result, we explored whether objectification from others and objectification of self would be higher for women than men. Indeed, compared to men, women reported more surveillance and shame as well as more experiences with body evaluation and unwanted sexual advances in Study 1 (see also Jiao et al., 2022). A different pattern of relations emerged in Study 2 with committed couples; pregnant women and men reported similar levels of body surveillance as in past research (Zurbriggen et al., 2011) as well as similar levels of feeling objectified and (de)humanized by their partner in the committed couples context (Strelan & Pagoudis, 2018). When women in Study 1 reported objectification experiences in general—with partners, strangers, acquaintances, and friends—they likely experienced more objectification than men, consistent with objectification theory (Fredrickson & Roberts, 1997). At the same time, mean levels of objectification for women and men in the couples context was similar, perhaps suggesting that the cultural context is less salient when there is a focus on the relational context. This is also consistent with findings showing similar patterns on self-objectification and partner objectification for women and men heterosexual relationships (Strelan & Pagoudis, 2018). It is also possible that self-objectification was lower for women in Study 2 due to pregnancy, given that pregnancy can increase appreciation for body functionality (Rubin & Steinberg, 2011) and humanization from partners during pregnancy reduces self-objectification and its negative consequences in women (Brock et al., 2021).

Importantly, few reliable gender differences emerged in the pattern of relations between attachment and objectification across studies, which have implications for both attachment theory and objectification theory. More specifically, women and men in both studies had similar associations between attachment and objectification with one exception: In Study 2, attachment anxiety was associated with body surveillance for women, but not for men; however, given the relatively large sample size, the significant Chi-squared statistic from the multiple group analysis could be misleading. Further, because gender differences were

considered in an exploratory fashion and only one difference emerged, this finding should be interpreted with caution until future research confirms this connection. With respect to attachment theory, this work is consistent with the tenet that insecure attachment undermines relational and mental health outcomes regardless of gender (e.g., Feeney, 2016). Likewise, with respect to objectification, the findings from the present research are consistent with other studies that have examined objectification processes in relationships and found negative correlates of objectification (e.g., less relationship satisfaction) regardless of gender (e.g., Strelan & Pagoudis, 2018; Zurbriggen et al., 2011). Although sexual objectification is still directed more at women than men in general (Study 1, see also Roberts et al., 2018), men may experience similarly negative consequences when they do experience objectification, especially in close relationships.

One notable strength of the present investigation is the inclusion of two different samples and our multi-method approach including several measures of attachment (two different self-reports and observed behaviors) and objectification (objectification of others, objectification of the self, and objectification by others in general and specific to a relationship context). Integrating both studies, the connection between insecure attachment and objectification appears to be robust. Significant relations emerged between multiple measures of attachment and objectification across student and community samples with varying levels of commitment (not in a relationship or in a relationship, Study 1; in a highly committed relationship during pregnancy, Study 2). In particular, attachment anxiety was associated with body surveillance in both samples (but only for women in Study 2). To our knowledge, this is the first study to find this effect in a sample of committed couples. Likewise, self-reported attachment insecurity was associated with experiencing objectification from others in the form of general body evaluation and unwanted sexual advances in Study 1. A similar pattern of results emerged in the community sample of couples in Study 2 using similar, but relationship-specific self-report measures of objectification. Participants (both women and men) who self-reported insecure attachment (in the form of avoidance) reported feeling less valued by their partners for human attributes other than physical attractiveness (e.g., intellect, humor, kindness). Likewise, behavioral data for secure attachment showed that a less secure base was associated with more objectification

for both women and men, including more partner objectification and less humanization. To our knowledge, this is one of the most comprehensive assessments of the connection between attachment and objectification in the literature to date (see also Brassard et al., 2018; DeVille et al., 2015; Jiao et al., 2022 for related studies).

Finally, in Study 1, we examined whether differences emerged in attachment and objectification relations for people who were single compared to in committed relationships. Overall, we found that the connections between attachment and objectification did not depend on relationship status, consistent with our findings that connection between attachment and objectification is robust. There were two exceptions to this overall pattern of relations: attachment avoidance and objectification of other women was stronger for single participants than participants in committed relationships, whereas attachment avoidance and perceived body evaluation by others was stronger for participants in a committed relationship than single participants. Single people might objectify women to the degree that they are high in attachment avoidance, whereas people high in attachment avoidance in committed relationships might be connected to feeling objectified by others. Because these were two isolated instances of relationship status differences, these findings should be interpreted with caution until confirmed in future research. Further, as previously noted, given the relatively large size of this sample, the chi-square test for the multiple group analysis may have been oversensitive to detecting group differences.

Theoretical Implications

Attachment theory is one of the bedrock frameworks for conceptualizing close relationships (Feeney, 2016; Rholes & Simpson, 2004), yet few studies have examined objectification within an attachment framework despite the inherently interpersonal nature of this phenomenon that reduces a person to their appearance, body, or sexual function. Previous research has revealed relations between attachment anxiety and avoidance to body surveillance and body shame in college and community samples (DeVille et al., 2015; Jiao et al., 2022; see also Brassard et al., 2018). Results of the present investigation replicate and extend beyond this work by demonstrating that two key aspects of attachment—general IWMs arising from lifetime experiences in close relationships

and the secure base that develops between two partners in a committed intimate relationship— are related to multiple dimensions of objectification and closely related constructs. This provides important preliminary evidence for the utility of an integrated conceptual framework drawing on both objectification and attachment theories applied within a dynamic, interpersonal systems context.

Further, the present work represents an important advancement in the small but growing literature on objectification in romantic relationships (e.g., Meltzer & McNulty, 2014; Sáez et al., 2019; Zurbriggen et al., 2011). Objectification theory suggests that Western cultures are saturated with sexual objectification in the media and interpersonal interactions resulting in self-objectification and several adverse consequences for women. The present research extends previous research on objectification theory (e.g., Roberts et al., 2018) to consider the intersection between the patriarchal culture saturated by sexual objectification and the security (or lack thereof) people experience in close relationships. For example, results of Study 2 suggest that less mutual safety and security (i.e., secure base) is a robust correlate with objectifying experiences with one's partner (i.e., feeling more valued for one's body and less valued for non-physical attributes). A defining feature of a secure pair bond is that each member of a dyad feels a unique and non-interchangeable connection with the other person (Marvin et al., 2016). As such, objectification is less likely to occur when there is a strong affectional bond in which each person is viewed as a complex, multifaceted, and importantly, a unique and irreplaceable individual. Early childhood experiences that shape attachment might serve as a filter through which people perceive and respond to the sexual objectification they subsequently experience from culture and in their relationships with others, including romantic relationships. Importantly, early parental interactions can powerfully shape both attachment and objectification (e.g., Slater & Tiggemann, 2016), and future research could further extend objectification theory with investigations of the interplay between these two processes (e.g., a parental focus on appearance might contribute to anxious and avoidance attachment processes in childhood).

Notably, attachment security has a “tendency toward stability and the possibility of change” (Feeney, 2016, p. 443). Although we have largely conceptualized attachment insecurity as predicting objectification experiences, experiences with objectification and dehumanizing forms of

partner objectification, especially in romantic relationships, likely undermine attachment security in those and subsequent relationships. This points to a reciprocal association between attachment and objectification processes. When people are reduced to their body parts, they are no longer perceived as special or as possessing unique qualities (Orehek & Weaverling, 2017). It follows that a strong, secure attachment cannot form if one or both partners are largely valued for their sexuality and appearance and not regarded as unique individuals. For example, Pizzirani et al. (2019) has suggested that dehumanizing experiences enacted toward a partner inevitably undermine the ability for the relationship to meet critical needs for comfort and security. Thus, when considering the interplay between attachment insecurity and objectification within a relationship context, it is important to consider their mutual effects on one another and the potential for these detrimental processes to perpetuate one another over time.

Limitations and Future Directions

Results from two independent samples suggest that there are robust links between insecure attachment and objectification-related variables including experiencing objectification from others, self-objectification, and other-objectification. What remains unclear, however, is the direction of these relations and the processes through which they occur. To build on the cross-sectional nature of our data, future longitudinal research is needed to determine the temporal ordering of these attachment and objectification-related variables; for example, studies should clarify whether attachment insecurity leads to objectification-related consequences, whether objectification predicts attachment insecurity, or if these processes feed into one another. For example, Jiao et al. (2022) found that attachment anxiety predicted increased self-objectification over 6 months, though this work did not examine objectification and attachment within dyads of couples (e.g., objectification of partners; secure base within dyads). Because IWMs are mental representations of self and others that result from a legacy of early caregiving experiences with primary attachment figures, it is possible that insecure attachment may cause people to see the self and others as sex objects. At the same time, because relationship experiences may contribute to current attachment behavior (e.g., partners high in attachment anxiety may become

less anxious in the presence of responsive reassurance from their partner; Arriaga et al., 2018), it is also possible that experiences with sexual objectification from recent partners will contribute to attachment insecurity. Indeed, sexual objectification and self-objectification have been associated with appearance anxiety (Adams et al., 2017) and general anxiety (Davidson et al., 2016; see also Calogero et al., 2021).

Another limitation of the present study was that we did not directly tie attachment and objectification to individual health outcomes although these links have been well-established in other literature. An avenue for future research is to consider the unique and interactive effects of partner objectification and attachment on mental health, a key outcome in both objectification (Fredrickson & Roberts, 1997) and attachment theories (Bowlby, 1988). Could it be that partner objectification is only detrimental to well-being in the absence of secure base because people feel fungible? In contrast, if there is a secure base, and partners are perceived as unique and irreplaceable, partner objectification might be protective and healthy for promoting mental health and a well-rounded relationship (including both emotional intimacy and sex). Further, we did not explore how corrective experiences (e.g., experiencing acceptance and love from a partner in the context of attachment anxiety) might mitigate risk for objectification arising from insecure IWMs. Although we have focused on romantic relationships in the present work, future research could also examine whether receiving love and acceptance in other close relationships (e.g., friendships) might counteract the insidious effects of insecure attachment and objectification. These represent important directions for future research.

Importantly, characteristics of the present sample limit generalizability of these findings. First, both samples were predominately White, exclusively cisgender and either identified as heterosexual or occupied mixed-sex relationships. Future research should use more inclusive inclusion criteria and recruit broadly to ensure more diverse representation. An additional limitation is that the data for Study 1 was collected over a decade ago. It is possible that attachment and/or objectification processes have changed since data collection. For example, college students might recognize objectification as more problematic now than they did when the data for Study 1 were collected and therefore it is unclear whether the findings from Study 1 would generalize to more recent samples. Although plausible, we believe the relations between

attachment and objectification that emerged in Study 1 would generalize to more recent samples and are applicable to attachment and objectification people experience today. The levels of attachment and objectification in Study 1 are similar to levels reported in more recent samples (Moradi & Varnes, 2017; Simon et al., 2019; Strelan & Pagoudis, 2018; Terán et al., 2021), not to mention that the means (e.g., on the OBCS) and pattern of relations from Study 1 and Study 2 were also similar. However, it is still possible that college students are thinking about objectification differently today than in the past and future research should replicate these findings. Further, we used a sample of pregnant couples in Study 2 to examine whether the same relations that emerged in Study 1 would also emerge in a sample of highly committed couples. Indeed, the relations between objectification and attachment were similar in Study 2 as Study 1, suggesting that the connection between attachment and objectification is quite robust. Future research should investigate the extent to which the experience of pregnancy specifically might impact experiences with self- and partner-objectification and related attachment (e.g., with a control group of highly committed couples who are not pregnant). Although past research clearly shows that objectification (Brock et al., 2021) and attachment processes (Fonagy et al., 1991) occur during pregnancy, future researchers could investigate how individuals' perceptions and experiences of their body during pregnancy might serve as both a source of risk and resilience that interacts with IWMs of attachment and secure base with a specific partner.

Practice Implications

Research arising from an integrated model of attachment and objectification may have practice implications for improving the health and well-being of individuals, especially women. For example, in psychotherapy, if a client presents with attachment-related issues, clinicians might explore concomitant objectification. Likewise, this framework might be particularly relevant for intervention work with couples. For example, emotion focused therapy (EFT) for couples (Johnson, 2019) is aimed at helping partners overcome vulnerabilities associated with insecure attachment (e.g., pursuer versus distancer roles associated with anxiety versus avoidance, respectively). EFT clinicians might benefit from routinely screening for and addressing partner objectification (e.g., feeling as though your

partner only values you for your body and not your other attributes) that can arise when one or both partners is high in anxious (e.g., reassurance seeking) or avoidant (e.g., evasion of conflict) attachment. Likewise, when a client presents with body image issues, clinicians may also want to explore related attachment issues. Nonetheless, future research is needed to replicate these findings before wide dissemination or practical recommendations to practitioners, particularly because research on objectification and attachment is limited to a handful of studies.

Conclusion

Both attachment theory (Bowlby, 1988) and objectification theory (Fredrickson & Roberts, 1997) have shed light on the power of contexts—relational and cultural—in shaping psychological processes over the developmental life course. Despite the potential overlap between these two theories, they have remained largely siloed in the literature. The present work integrated these theories to shed light on objectifying perceptions and experiences. We provide the most comprehensive consideration of the connections between attachment insecurity and objectification to date and suggest that insecure attachment and objectification (of others, of self, and by others) are connected, though the specific pattern of relations was nuanced. Importantly, attachment anxiety, across both samples in the present investigation, was strongly associated with manifestations of self-objectification (e.g., body surveillance). Further, a strong secure base in the couple relationship during pregnancy inherently creates an environment in which dehumanization processes (e.g., feeling valued for your body above and beyond other internal attributes) are unlikely to occur. Because attachment and objectification processes begin in childhood, it is possible that attachment and objectification go hand in hand (e.g., disproportionate focus on appearance could lead to insecure attachment and vice versa). The flipside to this perspective, however, is that secure attachment could serve as a protective factor against objectification. Our hope is that the preliminary framework offered here will produce future research that elucidates the impact of attachment and objectification, both individually and upon well-established relationship behaviors and orientations, to inform interventions aimed at the reduction of maladaptive attachment and objectification processes at a societal level.

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