



Short Communication

Emophilia, sociosexuality, and anxious attachment: Approach and inhibition differences



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ABSTRACT

Emophilia is defined by a tendency to fall in love quickly and often, which is associated with rapid romantic involvement. However, questions linger as to how it is different from anxious attachment, which also predicts rapid romantic involvement. One key difference is the process (i.e., approach vs. avoidance) through which these individuals perceive rewards and punishments. Whereas emophilia is defined as a reward-based approach process, anxious attachment is an anxiety based avoidance process. Three overlapping variables (emophilia, sociosexuality, and anxious attachment) were examined against the backdrop of Gray's Behavioral Activation and Inhibition Systems (BAS & BIS, respectively) using 240 participants from Amazon's Mechanical Turk. Each had a unique reinforcement pattern. Whereas anxious attachment was associated with both aspects of BIS, emophilia was associated with BAS-Reward and sociosexuality was associated with BAS-Fun and BAS-Drive. These findings suggest that while emophilia is associated with reward-based "approach" processes, anxious attachment is associated with fear and anxiety based "inhibitory" processes. These avoidance processes are presumably associated with need-based affiliation with a romantic partner.

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Emophilia is defined by how fast and frequently one falls in love (Jones, 2011). One way to understand emophilia is to refer to it as a distinctive but overlapping emotional parallel to sociosexuality. For example, Simpson and Gangestad (1991) argued that individuals differ in their expectations that must be met for sexual contact. For some individuals, those expectations can be reached by the end of an evening, whereas for others, it may take years (if ever). Thus, the same argument can be applied to feeling romantic love. Some individuals may fall in love seemingly overnight, whereas others take years. Further, some individuals may repeat this process frequently, whereas others fall in love only once (or never).

It may seem that emophilia is simply a behavioral manifestation of anxious attachment. Indeed, anxiously attached individuals report rapid romantic involvement, but claim it is difficult for them to find "real love" (Hazan & Shaver, 1987). The type of romantic love observed in anxiously attached individuals has also been termed *limerence*, or loving attachment, and includes feelings of partner obsession, desire for reciprocation, and emotional extremes (Tennov, 1979). Although anxiously attached individuals seem to have a low threshold for declaring their love, such declarations stem from hopes of security and self-validation (Mikulincer & Shaver, 2007).

Recent research has uncovered distinctions between anxious attachment and emophilia. For example, although individuals high in anxious attachment form rapid romantic connections (Tracy, Shaver, Albino, & Cooper, 2003), they have distinct relationship histories compared to those who are high in emophilia (Jones, 2015). For example, individuals high in emophilia, but not anxious attachment, were associated with more relationship partners over the course of one's life.

These distinctions are consistent with the inherent conflict found in anxiously attached individuals when it comes to new relationships. Although a new partner may provide security (Mikulincer & Shaver, 2009), that partner also presents the possibility of future rejection. Thus, fear and anxiety based processes seem most central to anxious attachment whereas reinforcement and approach based processes seem most relevant to emophilia and sociosexuality.

1. Summary and predictions

Relationships can be initiated for a variety of reasons and using a variety of strategies (Clark, Shaver, & Abrahams, 1999). Individuals may approach another seeking a relationship that involves (for example): sexual intimacy, emotional intimacy, a long-term pair-bond, or some combination of these. The purposes for initiating a relationship can be short term, long term, physical, or emotional. Thus, it is important to know how different relationship-relevant variables relate to approach and avoidance processes.

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Although sociosexuality, emophilia, and anxious attachment are only some of the potential dispositional factors that may contribute to or inhibit relationship initiation, we have chosen to focus the scope of this study on these factors in order to better understand the relationship between these related constructs. In addition, it is important to differentiate these dispositional factors through motivational systems for initiating a physical or emotional relationship. One potential way to do this is through examining sociosexuality and emophilia with the behavioral inhibition system (BIS) and the behavioral activation system (BAS; Carver & White, 1994). BAS activation is related to positive affect through sensitivity to reward, while BIS activation is related to negative affect through sensitivity to punishment (Gray, 1981).

Given that emophilia and sociosexuality are traditionally associated with an increase in previous partners and number of previous relationships (Jones, 2015), it seems reasonable to predict that both the dispositional constructs of sociosexuality and emophilia would be associated with approach based processes. However, it is unclear if these processes are similar, or if they have different approach-based processes with which they are associated. For example, given that sociosexuality is more highly associated with sensation-seeking (Gaither & Sellbom, 2003), it should have a strong and unique relationship with BAS-Fun. In contrast, because emophilia is hypothesized as a rewarding and reinforcing process that is often repeated, it should have a strong and unique relationship with BAS-Reward. Note that no strong predictions were made about BAS-Drive.

We examined Behavioral Inhibition Systems (BIS) at the more detailed level of Fight, Flight, Freeze System (FFFS) and Anxiety (e.g., Heym, Ferguson, & Lawrence, 2008). We predicted that anxious attachment would be associated with both of these processes. This assertion is based on the fact that anxiously attached individuals cling to romantic partners, fearing rejection and abandonment (Shaver & Mikulincer, 2009). In sum, we predict that sociosexuality and emophilia will be associated with reward-based processes, whereas anxious attachment will be associated with inhibitory processes due to their fear of rejection and abandonment.

2. Method

2.1. Participants

A total of 271 participants were recruited on Amazon's Mechanical Turk (see Buhrmester, Kwang, & Gosling, 2011 for details) for a study on personality. It should be noted that a power analysis revealed that a sample of 199 was adequate (minimum 80% power) to medium effect sizes with a model containing 13 degrees of freedom. However, 31 participants responded inappropriately to at least one of two attention checks (e.g., "I breathe oxygen every day" and "I can breathe ocean water") and were therefore removed from analyses. Each attention check individually had an attention pass rate of above 90%, which replicates previous research investigating the data quality and attentiveness of MTurk participants (Hauser & Schwarz, 2016). By including two checks, we ensured the analysis only of participants who twice indicated their attentiveness. Thus, the final sample consisted of 240 (123 men, 117 women) adults with a wide range of ages (18–67; $Mean = 29.74$, $SD = 9.01$) and ethnic backgrounds (56% Caucasian, 15% East Asian, 20% South Asian, 9% other).

2.2. Measures

2.2.1. Emophilia

In order to assess emophilia, we used the 10-item EP-Scale (see Jones, 2011 for validation; see also Jones & Paulhus, 2012). The EP-Scale ($Mean = 2.87$, $SD = 0.65$) was designed to operationalize the construct of emophilia using questions that assess how fast and frequently people fall in love (e.g., "I fall in love easily" and "I fall in love frequently.").

Unless otherwise noted, all measures were on a scale of 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale.

2.2.2. Sociosexuality

The Sociosexual Orientation Inventory (SOI; Simpson & Gangestad, 1991) was used to measure sociosexuality. The SOI assesses one's attitudes (e.g., "sex without love is ok") behaviors (e.g., "how many partners have you had sex with on one and only one occasion?") towards casual sex. Here, open ended behavioral choices ranged from 0 to 11+. All items were standardized and then averaged.

2.2.3. Attachment styles

The AAS questionnaire (Collins & Read, 1990) was used to measure anxious ($Mean = 2.77$, $SD = 0.63$) and avoidant attachment styles ($Mean = 2.86$, $SD = 0.62$). A sample item for anxious attachment is "I often worry that my partner does not really love me," and a sample item measuring avoidant attachment is "I am somewhat uncomfortable being close to others." The AAS has respectable validity, is widely used, and correlates reasonably well with other attachment measures (Fraley, Waller, & Brennan, 2000).

2.2.4. BIS-BAS scales

In order to measure approach and avoidance based processes, we used the Behavioral inhibition and behavioral activation (or BIS/BAS) scales (Carver & White, 1994). This is a 24 item measure that assesses three factors of BAS: Reward, Fun, and Drive. Although BIS was originally conceived as a single factor, more recent research advises separating BIS into the two factors of FFFS and Anxiety (Heym et al., 2008).

3. Results

Table 1 displays internal consistencies and inter-correlations among all study variables. Note that the correlations of EP with sociosexuality, anxious attachment, and avoidant attachment are consistent with results found in previous studies (Jones, 2015). In addition, we explored sex differences among our key predictors. Only sociosexuality showed a sex difference, $t(238) = 3.08$, $p = 0.002$, such that men tended to score higher on the SOI than women (anxious attachment: $t(238) = -1.087$, $p = 0.279$, emophilia: $t(238) = 1.27$, $p = 0.210$).

Recall our predictions were that anxious attachment would be associated with BIS, and that emophilia and sociosexuality would be associated with BAS. More specifically, we predicted that emophilia would be related to BAS-Reward and sociosexuality would be related to BAS-Fun. We set up a Structural Equations Model (SEM) extracting a common BAS factor from the three observed scores (BAS-Fun, BAS-Drive, BAS-Reward) and extracting a common BIS factor from the two observed scores (FFFS and Anxiety). As can be seen in Fig. 1, emophilia was associated with the BAS common factor. However, the addition of a unique path from emophilia to BAS-Reward added nothing to the model, and was dropped. As predicted, there was a significant link between sociosexuality and BAS-Fun. Finally, anxious attachment had a positive association with BIS and a negative association with BAS. The final model had a reasonable fit to the data: $\chi^2 = 23.33$, $p = 0.038$; CFI/TLI = 0.97/0.95; RMSEA = 0.054, SRMR = 0.036). It should be noted that additional paths were added from Bas-Drive to BIS and from Anxiety to BAS. Although these additions helped with model fit, they did not alter the overall results.

4. Discussion

Emophilia was predicted to have a positive association with a reward-based approach process, but would remain distinct from anxious attachment and sociosexuality. These predictions were partially supported. Emophilia was uniquely related to the common BAS factor, unlike sociosexuality, which was only associated with BAS-Fun. Finally, as predicted anxious attachment was positively associated with BIS.

Table 1
Means, alphas, and inter-correlations among relationship predictors.

	1	2	3	4	5	6	7	8	9
1. Emophilia	0.80								
2. Sociosexuality	0.37*	0.83							
3. Anxious att.	0.34*	0.04	0.77						
4. Avoidant att.	-0.16*	0.13*	0.13*	0.75					
5. BAS-Drive	0.07	0.14*	-0.18*	-0.02	0.68				
6. BAS-Fun	0.15*	0.29*	0.04	0.08	0.37*	0.71			
7. BAS-Reward	0.15*	0.01	-0.04	-0.10	0.32*	0.41*	0.76		
8. FFFS	0.15*	0.09	0.24*	0.20*	-0.14*	-0.08	0.20*	0.63	
9. Anxiety	0.13*	-0.05	0.31*	0.12	-0.05	0.07	0.43*	0.57*	0.73
Mean	2.87	0.00	2.78	2.85	3.38	3.52	4.20	3.33	3.79
SD	0.64	0.70	0.64	0.63	0.72	0.73	0.56	0.86	0.81

Note: Alpha consistencies are on the diagonal.

* $p < 0.05$.

The findings pertaining to sociosexuality replicate and extend previous research. From an evolutionary standpoint, unrestricted sociosexuality should indeed be associated with short-term thinking, high impulsivity, fun- and sensation-seeking behaviors (Gaither & Sellbom, 2003). The present findings also coincide with research in the attachment literature. Given that anxiously attached individuals are most likely to be anxious over abandonment and rejection (i.e., “punishment”), they would be grounded in inhibitory and fear based processes (Shaver & Mikulincer, 2009). Importantly, emophilia stood out in its unique association with BAS. Such individuals find romantic connections and falling in love to be an exciting reward-based approach process (Jones, 2015). In this way, all three variables have distinct neurological processes when it comes to approach and avoidance.

These findings may have implications for how the motivations behind romantic relationship formation are conceptualized. From the anxious attachment perspective, individuals would need others to latch onto in order to feel safe and valued (Hazan & Shaver, 1987; Mikulincer & Shaver, 2007). In contrast, those who seek reinforcing patterns of romantic connection and repeat those patterns would better fit into an emophilia profile. Finally, individuals who are driven by fun and sensation seeking would most likely fit a sociosexuality profile. In particular, these individuals are not interested in long-term commitments but are seeking immediate gratification and reward through sexual contact (Simpson & Gangestad, 1991).

There are several limitations to the present research. One such limitation was the use of the original SOI measure from Simpson and Gangestad (1991). More recent revisions of SOI assessment have emerged, leading to an improved measure (SOI-R; Penke & Asendorpf, 2008). Future studies would benefit from utilization of this more refined assessment of sociosexuality. Future research should also explore the impact of emophilia and other relevant variables using a direct measure of relationship initiation. To date, previous research has focused on BIS/BAS in relation to the conclusion of relationships rather than the

initiation (see Meyer, Olivier, & Roth, 2005). Thus, BAS processing may mediate the relationship between emophilia and relationship initiation.

Another limitation was the use of self-report proxy measures to assess approach and inhibitory processes. Future research should examine these findings under neurological observation. Although costly, such research would shed light on the brain activities relevant to falling in love for individuals high in emophilia vs. other relationship constructs. Further, such research would contribute to the larger body of neurological data on love-based processes at an individual differences level (e.g., Fisher, Aron, & Brown, 2005). For example, it may be possible that there are dopamergic sensitivities to these key brain regions among individuals high in emophilia.

Emophilia is still an emerging construct, but the findings of the present study support the idea that emophilia is a unique and important construct for research in the realm of relationship formation. They have a unique neurological signature and are associated with approach-reward based patterns. These processes compliment sociosexuality in an overlapping but distinctive ways. Thus, emophilia is based on approaching general rewards whereas sociosexuality is strongly associated with approaching fun. Finally, anxious attachment had no association with approach based patterns of reinforcement, and instead was exclusively related to anxiety and fear in avoiding punishment.

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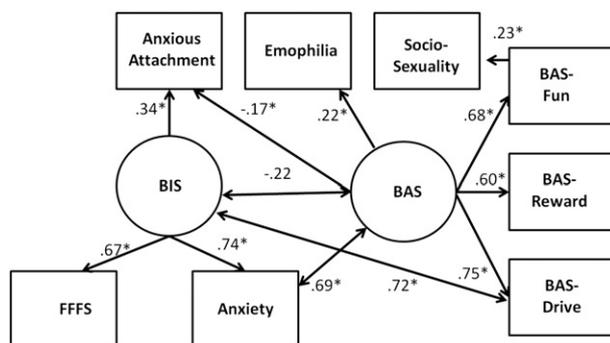


Fig. 1. Path model predicting BIS/BAS components from anxious attachment, sociosexuality, and emophilia.

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