ATTACHMENT IN DONOR CONCEPTION: CURIOSITY, SEARCH, AND CONTACT

BY

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THESIS

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ABSTRACT

Donor conceived (DC) people represent a unique population with atypical family structures. The present study examined whether individual differences in attachment predict adults' self-reported curiosity about their donor conception identity, as well as attempts to find the donor and establish contact. Data were collected from 488 donor conceived people from the Donor Sibling Registry (DSR). People who were high in attachment-related anxiety were more curious than others about their donor conception. Despite this curiosity, however, highly anxious people were more disengaged from donor conception and were not more likely than others to search for or have made contact with their donor. These findings suggest that insecure attachment – in particular, attachment anxiety – may contribute to peoples' willingness to incorporate donor conception into their identities.

Keywords: curiosity, identity, attachment, donor conception

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Dedication To My Family (Known and Unknown)

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INTRODUCTION

Most people never question who their parents are. But for those conceived using donor sperm or eggs, this is not the case. Donor conceived (DC) individuals represent a unique population with atypical family structures that may involve relationships with biological and non-biological parents. Although family types can vary considerably, many donor conceived individuals possess at least three parents: A biological parent who is genetically related to the child; a non-biological, "social" parent who plays a role in childrearing but bears no genetic relationship to the child; and a sperm/egg donor that may or may not be known to the child. Although some donor conceived people elect to find and contact their donor, others choose not to. Why is it that some DC people are more curious about their origins than others? Attachment theory may be a useful framework for answering this question.

Attachment theory seeks to understand the deep and enduring emotional bond that connects one person to another across time and space (Ainsworth, 1973; Bowlby, 1969). Despite an abundance of research on attachment relationships across the lifespan, little is known about attachment dynamics in donor conceived adults. The focus of this research is to examine whether individual differences in attachment relate to self-reported curiosity about adults' donor conceived identities, as well as attempts to search for the donor and establish contact.

Identity and Donor Conception

According to the literature on donor conception, people born through assisted reproduction tend to experience obstacles in identity development (e.g., Ehrensaft, 2008; Harrigan, Leinwohl, & Marrin, 2015; Hertz, Nelson, & Kramer, 2013). For instance, many DC individuals report a sense of "shock" upon learning that they are donor conceived, followed by

disruptions in their sense of self and *who* constitutes their family (Hertz et al., 2013). Donor conceived people may also have an incomplete understanding of their genetic history or ancestry (Ravitsky, 2010). Analogizing gamete donation to adoption, the discovery of one's donor conception can spur identity confusion, as being donor conceived presents individuals with new "self-defining information" (Erikson, 1980). In turn, this new identification may lead to the experience of poor self-perception and identity crisis (Sabatello, 2015).

One of the issues compounding identity-related concerns is the fact that many donor conceived individuals have anonymous donors and possess little information, if any, about them. The donor often holds the key to the offspring's personal and ancestral identity, and it may be difficult to formulate a coherent sense of self without basic knowledge of one's progenitor (i.e., *who* this person is and *where* he/she comes from). Drawing on adoption work, Sants (1964) suggested that the absence or uncertainty of such information could lead to feelings of incompleteness and "genealogical bewilderment" (p. 133) in individuals who lack at least one biological parent. Critics of anonymous donor conception have expressed concern that access to the identity of one's genetic progenitors is necessary to help donor conceived people make sense of their physical characteristics, talents, or interests (Velleman, 2005). For instance, anonymous donor conception raises important questions about family resemblance, of which an entire literature is devoted (e.g., Indekeu, 2015). Individuals who lack information about their donor might feel they are missing essential information about their identity, which could have wide-ranging consequences for the development of self-understanding (Ravitsky, 2010).

New Family Forms

Assisted reproduction leads to diverse family forms involving "family" connections that extend beyond parents and their children. Connections may be formed between the ensuing child

and the family of the donor (including extended relatives), between the donor and the recipients, or between donor siblings. Donor conceived individuals are often confronted with questions about the donor's place in their lives and identity, such as "What type of relationship do I want with my donor and donor relatives (e.g., half-siblings)?" and "Who am I in relation to my donor?"

An important consideration in donor families is how to integrate donor relationships with existing family ties. A particularly poignant issue is concern for the feelings of donor conceived people's parents. For instance, research by Hertz and colleagues (2013) suggests that donor conceived individuals might be hesitant to express interest in the donor out of fear of hurting the parents who have raised them, particularly the non-biological parent. Moreover, offspring may want to facilitate a bond between themselves and the donor that is separate from their relationship with their parents. They may also wish to assure their parents that their natal families are important and will not be disrupted. Not surprisingly, much of the work on donor conception has focused on the role of secrecy within the family and its psychological effects on donor conceived offspring (e.g., Berger & Paul, 2008). Despite this research, we know very little about the relationships that donor conceived individuals have with their biological and non-biological, social parents and how those relationships might affect their willingness to explore their genetic roots, search for the donor, and establish contact with him/her.

Attachment Theory and Donor Conception

Attachment theory emphasizes the emotional bonds that people form with their primary caregivers and the implications of those bonds for social and emotional functioning across the lifespan. This theory has the potential to be a useful framework for understanding the psychology of donor conception. That is, attachment with early caregivers may yield representations of the

self and other that provide a foundation for the organization of one's identity as a donor conceived person. Bowlby (1969, 1973) argued that mental representations of the self and others (i.e., working models) inform a range of affects, cognitions, and behaviors relevant to social interactions, social relationships, and self-construal throughout one's life. Primary caregivers who are available and responsive to a child's needs bolster the child's sense of security. The secure child knows that the caregiver is dependable and is able to use the caregiver as a secure base for exploring the environment. Conversely, unpredictable or unreliable caregiving can lead to insecure attachment, which may, in turn, inhibit exploration.

Although attachment theory is a normative theory of relationships and development, it emphasizes individual differences in the way people experience their relationships. For example, some people are comfortable opening up to others emotionally, whereas others are reluctant to do so. According to attachment theory and research, there are two fundamental ways in which people differ from one another in the way they think about relationships (Brennan, Clark, & Shaver, 1998; Fraley, Waller, & Brennan, 2000). First, some people are more anxious than others. Those who are high in *attachment-related anxiety* tend to fear rejection and worry about whether others really love them. Second, some people are more avoidant than others. Those who are high in *attachment-related avoidance* are less comfortable depending on others and opening up to them.

Although some donor conceived people may be generally secure or insecure in their relationships, it is possible that individuals may be more insecure with some targets (i.e., their non-biological parent) than others (e.g., their biological parent). Attachment theory suggests that security will be higher in relationships that involve more contact or proximity. Specifically, donor conceived people should be more secure in their relationships with their parents (both

biological and social) than their donor parent. In contrast, evolutionary psychological perspectives predict that genetic relatedness trumps non-genetic ties, such that the bond with the genetically related donor parent should be more secure than that with the non-genetically related "social" parent. Interestingly, some research has found that people are more likely to develop an attachment bond with someone with whom they share a larger proportion of their genes (Tancredy & Fraley, 2006). Although that research was conducted with twins, the data suggest that shared genes may affect relational dynamics (e.g., empathy) that promote the development of attachment. Despite this intriguing possibility, no other research on donor conception has examined differences in peoples' attachment styles with biological parents, non-biological parents, and donors.

Pittman, Keily, Kerpekman, and Vaughn (2011) argue that one's attachment history serves as a foundation for identity formation, such that "identity formation is less an individual accomplishment than a co-construction of an individual with significant others" (p. 32). Parents may be especially important sources of support and verification when donor conceived people are integrating donor conception into their identities. For instance, secure individuals might use their biological and/or non-biological social parent as a secure base when exploring their identities. Seeking support and comfort from the parent (a "safe haven") in the event of a distressing identity disruption (e.g., discovering that one is donor conceived, or being thwarted in the attempt to discover information about one's donor conception) could facilitate engagement of the identity-exploration process (Pittman et al., 2011). In contrast, individuals who are insecurely attached to the parents who raised them may exhibit further disappointment in the event of identity-related distress. Those with insecure attachment orientations may rely too heavily on the parent or avoid the topic of donor conception altogether, which could negatively affect their

willingness to explore their identities. Taken together, attachment relationships with primary caregivers (and close relationships in general) may be associated with the exploration of donor conception and immersion of donor conception into one's sense of identity.

Scholars know relatively little about donor conceived offspring's attachment to their biological and non-biological/social parents, and the impact of their donor conception for how they think about themselves. To our knowledge, there is only one investigation that has directly assessed attachment processes in donor conceived individuals. Slutsky et al. (2016) studied 19 donor conceived adolescents, ages 12-19, using a cross-sectional design. Participants were audio-recorded during a semi-structured assessment (FFI; Friends and Family Interview) and completed a self-report measure indexing their curiosity about donor conception (i.e., DCIQ; Donor Conception Identity Questionnaire). They found that adolescents with secure attachment patterns were more interested in exploring their donor conception, whereas those with insecure attachment patterns were less likely to express curiosity. Furthermore, the authors' correlation matrix revealed that "insecure-preoccupied attachment" was positively associated with donor curiosity, although this correlation was non-significant, possibly owing to the small sample size (n = 19).

The Present Study

The goal of the current study was two-fold: We sought to examine whether individual differences in attachment relate to (1) self-reported curiosity about one's donor conception, and (2) a person's choice to find or contact their donor. In accordance with previous research (Slutsky et al., 2016), we hypothesize that individual differences in attachment will predict whether donor conceived people report curiosity about donor conception and elect to find/contact their donor. More specifically, those who are secure in their parental relationships (and close

relationships, in general) should have greater comfort approaching the donor and integrating donor conception into their lives. Alternatively, it could be the case that people who are insecurely attached to their parents are more likely to seek out the donor and exhibit greater curiosity about their donor conception, as a means of compensating for inconsistent or unsatisfying parental relationships. Put simply, insecure relationships with parents may either facilitate or inhibit donor exploration.

Previous research on attachment suggests that highly anxious people have a strong need for intimacy, and they more readily construe a relationship as "close," compared to those who are avoidant (e.g., Hudson & Fraley, 2017). In accordance with these findings, we suspect that highly anxious adults will make greater attempts to find/contact their donors and exhibit greater curiosity about donor conception than less anxious adults. On the other hand, highly anxious adults might not show curiosity about donor conception and initiate search/contact because they do not have a co-occurring sense of connectedness to their attachment figures and a growing sense of independence that encourages exploration. One of the objectives of the present study was to examine these alternatives using data from a sample of DC adults.

METHOD

Procedure. The first two authors partnered with the Donor-Sibling Registry (DSR), a non-profit organization serving donor conceived individuals, sperm/egg donors, and parents who have utilized assisted reproductive technology. The third author (WK) sent a mass email to all 18+ adults belonging to the DSR. The study was also advertised on the organization's website and social media pages (i.e., Twitter, Facebook). To be eligible to participate, individuals had to be (1) conceived through the use of a sperm or egg donor, (2) carried by a parent rather than a surrogate, and (3) raised in a two-parent household with one biological parent and one non-biological "social" parent. Participants were informed that the research was about personality and individual differences in donor conceived individuals. Participation in the study entailed responding to several surveys and writing about the experience of being donor conceived.[1]

Participants. Four hundred eighty-eight donor conceived participants took part in the study (312 female, 83 male, 12 non-binary, 1 prefer not to disclose, 80 unreported)[2]. Ages ranged from 18 to 74 (M = 28.76, SD = 10.81). Of the 449 individuals who identified their ethnicity, 88.42% were White, 4.68% Hispanic, 1.78% Asian/Pacific Islander, 1.11% Native American, 0.67% African American (2.90% indicated "Other" and 0.45% chose not to disclose). Most participants were conceived through sperm donation (93.24% sperm donation, 3.69% egg donation, 3.07% not disclosed) and reported coming from a heterosexual family (67.21% heterosexual, 25.61% LGBT, 7.18% not disclosed). With respect to disclosure, approximately

[1] Self-narratives were collected as part of a related project on attachment and language use in donor conceived individuals. For more information, refer to our pre-registered materials on OSF: https://osf.io/as9bm/

[2] The minimum sample size was determined *a priori*; it was determined that at least 200 people were needed to ensure 80% power to detect population correlations of .20 or higher using a two-tailed test. Thus, we made sure that we collected data from a minimum of 200 people before analyses were conducted. On the basis of unique Qualtrics identifiers, we ensured that participants provided data only once. Online consent was obtained from all participants.

85.5% of participants were told by their parents that they were donor conceived, 3.30% were told by someone else other than their parents, and 11.55% found out on their own.

Measures.

Adult Attachment. The Experiences in Close Relationships-Relationship Structures (ECR-RS; Fraley, Heffernan, Vicary, & Brumbaugh, 2011) was administered to assess individual differences in attachment. Participants were asked to complete the 9-item ECR-RS with respect to their general attachment (avoidance: α = .86, anxiety: α = .85), as well as their attachment to several interpersonal targets: (1) *biological parent* (avoidance: α = .95, anxiety: α = .86); (2) *non-biological, social parent* (avoidance: α = .95 , anxiety: α = .91); (3) *donor* -- if known to the participant (avoidance: α = .89 , anxiety: α = .90). Each item was rated on a Likert scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Composite scores for each attachment dimension in each relational domain were computed such that higher scores reflect greater levels of insecure attachment (i.e., avoidance, anxiety).

Curiosity. The Donor Conception Identity Questionnaire (DCIQ; Slutsky et al., 2016) assesses peoples' willingness to integrate knowledge of donor conception into their subjective sense of identity (α = .55). The DCIQ has two subscales: Curiosity (α = .62) and Disengagement[3] (α = .76). Each item is rated on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*, with items averaged to form a scale score for each. Sample items include "I think a lot about the characteristics I might share with my donor" (Curiosity) and "I feel ashamed of being donor conceived" (Disengagement). Refer to the full set of items in Table 1.

[3] To avoid confusion with avoidant attachment, the "Avoidance" subscale of the DCIQ will be referred to as "Disengagement" throughout the paper. The authors, Slutsky et al. (2016) state that the Avoidance subscale reflects a sense of disengagement from the topic of donor conception and negative feelings, such as anger and anxiety.

The original subscales of the DCIQ were based on a factor analysis of data from a sample of 19 people. As such, the factor solution might not be robust, and should be re-examined in a larger sample. We conducted an exploratory factor analysis using principal axis factoring, followed by oblimin rotation, for the 16 DCIQ items. According to our results, at least two factors were necessary to represent the data, accounting for 26% and 41% of the cumulative variance in Disengagement and Curiosity, respectively.

Table 1 shows the factor loadings for the DCIQ using a two-factor solution. Our analyses indicate that items 2, 6, and 14 from Slutsky et al. (2016)'s Curiosity subscale loaded negatively on the Disengagement factor. Additionally, item 10 loaded negatively on our second factor tapping into Disengagement. Due to moderate cross-loadings on both factors (with loadings below the recommended cut-off of 0.40), we chose to eliminate the first item from the DCIQ: "I am still trying to figure out how donor conception relates to who I am." We created composites as follows: Factor 1 (Disengagement; α = .86): 2, 4, 6, 7, 8, 12, 13, 14, 15, 16 with 2, 6, and 14 negatively keyed; Factor 2 (Curiosity; α = .74): 3, 5, 9, 10, 11 with item 10 negatively keyed.

Donor Search/Contact. To measure donor exploration, we used a forced choice question: "Have you tried to locate or find your donor?" (yes/no). Additionally, we asked, "Have you made any attempt to contact your donor?" (yes/no), although this question was only presented to participants who possessed knowledge of their donor's identity (i.e., "Do you know the identity of your donor?" (yes/no).

RESULTS

Descriptive statistics and correlations are depicted in Table 2. Our basic analytic plan was pre-registered on the Open Science Foundation (OSF) project page before data analysis began. Multiple logistic regressions were conducted in R using the generalized linear model, or glm() function. All other multivariate models were fit with the *lavaan* package. Missing data (i.e., missing survey responses) for the aforementioned models were handled with Full Information Maximum Likelihood (FIML). Prior to conducting analyses, continuous predictor variables (i.e., attachment anxiety and avoidance) were mean-centered to assist in interpretability, as these variables do not have meaningful zero-points.

Donor Exploration – Search and Contact.

We ran a series of multiple logistic regressions to test the first hypothesis that individual differences in attachment would predict one's search for the donor. The dichotomous dependent variable, whether the donor had been found (i.e., yes/no), was regressed onto attachment anxiety and avoidance for each interpersonal target (e.g., biological parent, non-biological parent). As Table 3 illustrates, there were no statistically significant associations between individual differences in attachment and attempts to locate or find donors. The only exception was that individuals who scored higher in attachment avoidance with their biological parents were more likely to search for their donors, Wald χ^2 (1) = 4.00, p = .046, OR = 1.17, 95% CI [1.01, 1.36].

We also ran a series of logistic regressions predicting whether or not participants had contacted their donors. This analysis was based on 143 people who knew the identity of their donors--a necessary condition for contact. This dichotomous variable (i.e., yes/no) was regressed onto attachment anxiety and avoidance for each interpersonal target. There were no significant

associations between individual differences in attachment and contacting the donor (see Table 4.) In summary, attachment styles were not associated with seeking out or contacting donors.

Curiosity about Donor Conception.

To assess whether anxious adults exhibited greater self-reported curiosity about their donor conception, we conducted multiple regression models with anxiety and avoidance predicting curiosity about donor conception, as measured by the DCIQ (see Table 5). Individuals high in attachment anxiety reported greater curiosity about being donor conceived (general: β = .11, SE = .02, $p < .001$; biological parent: β = .12, SE = .04, $p < .01$; non-biological parent: β = .09, SE =.03, $p < .01$; donor: β = .16, SE = .05, $p < .01$). Individuals who were highly avoidant with their donor were less likely to be curious about donor conception as it pertains to their identity, β = -0.24, SE = .06, $p < .001$. However, avoidance with other parents (i.e., biological, non-biological) and avoidance in general was not related to curiosity about donor conception.

We also ran separate multiple regression models with anxiety and avoidance predicting disengagement on the DCIQ. Results suggested that people who were high in attachment anxiety (β = .07, SE = .02, $p < .01$) and attachment avoidance (β = .13, SE = .03, $p < .001$) with respect to their close relationships in general tended to disengage from donor conception. Interestingly, those who were anxiously attached to the donor were more likely to report being disengaged from donor conception, β = .23, SE = .04, $p < .001$. Taken together, these findings suggest the intriguing possibility that individuals high in attachment anxiety are disengaged from donor conception, despite their curiosity about it.

Attachment by Parental Target.

As previously discussed, donor conceived individuals might be more insecure with specific kinds of targets (i.e., non-biological parents). To explore this possibility, we compared

levels of attachment anxiety and attachment avoidance among the different parental targets. (We only examined attachment to donors in cases in which people indicated that they knew their donor.) Because participants completed attachment measures for each parent, we ran a series of paired sample *t*-tests to answer this question. See Figures 1 and 2 for an illustration of these results.

Biological Parents and Non-Biological, Social Parents

People reported more attachment anxiety in their relationships with their non-biological, social parents ($M = 2.10$, $SD = 1.62$) than their biological parents ($M = 1.66$, $SD = 1.27$), $t(418) = -5.29$, $p < .001$, $d = 0.30$. In addition, people reported higher attachment avoidance with their non-biological, social parents ($M = 3.74$, $SD = 1.88$) than their biological parents ($M = 2.95$, $SD = 1.78$), $t(419) = -7.59$, $p < .001$, $d = 0.43$.

Biological Parents and Donor Parents

On average, people reported greater attachment anxiety with their donor parents ($M = 2.68$, $SD = 1.82$) than their biological parents ($M = 1.66$, $SD = 1.27$), $t(46) = -3.63$, $p < .001$, $d = 0.65$. Adults also reported more avoidance with their donor ($M = 4.22$, $SD = 1.56$) than their biological parent ($M = 2.95$, $SD = 1.78$), $t(47) = -3.01$, $p < .01$, $d = 0.76$.

Non-Biological, Social Parents and Donor Parents

No significant difference was observed in attachment anxiety for the non-biological, social parent ($M = 2.10$, $SD = 1.62$) and donor parent ($M = 2.68$, $SD = 1.82$); $t(46) = -1.62$, $p = 0.11$. Furthermore, the means of attachment avoidance did not significantly differ between the non-biological, social parent ($M = 3.74$, $SD = 1.88$) and donor ($M = 4.22$, $SD = 1.56$); $t(47) = -0.97$, $p = 0.34$.

DISCUSSION

The objective of the present research was to examine whether individual differences in attachment relate to (1) self-reported curiosity about one's donor conception, and (2) a person's choice to find or contact their donor. Overall, we found that attachment styles were unrelated to whether people sought out the donor or made contact with him/her. However, results indicated that participants high in attachment anxiety were more curious about their donor conception, albeit disengaged from it. Taken together, these findings imply that insecure attachment – in particular, attachment anxiety – may contribute to a person's willingness to incorporate donor conception into his/her identity, but not necessarily to act on it.

Our results provide support for the idea that donor conceived people who are anxiously attached to their parents are more likely to exhibit curiosity about donor conception, potentially as a means of offsetting their unmet attachment needs. Previous research underscores the possibility that attachment anxiety may warrant exploration of donor conception due to a lack of perceived closeness (Hudson & Fraley, 2017) in one's relationships. That is, greater attachment anxiety might lead individuals to exhibit more curiosity about their donor conceived identities. In doing so, they may seek out social experiences (e.g., communicating with other donor conceived people) or acquire further information about donor conception (e.g., how the donor relates to him/her), as a way of managing their anxiety.

As in past research (Slutsky et al., 2016), our findings suggest that an individual's attachment style is related to one's curiosity about donor conception. Although the results of Slutsky and colleagues (2016) show a general trend for attachment security and curiosity (counter to ours), their correlation between insecure-preoccupied attachment and curiosity was in

the positive direction. Given that their study was insufficiently powered to detect an effect, it is possible that such an association, does in fact, exist. Thus, one of the major contributions of the present study was our ability to examine these associations with adequate statistical power.

Although the current investigation is the first of its kind to investigate individual differences in adult attachment with respect to donor conception, it is not without its shortcomings. The findings are limited by the characteristics of our sample; that is, participants were largely White females born via sperm donation, which affects the generalizability of our conclusions. However, it is important to note that recruitment of donor conceived individuals is nearly impossible without a database such as the Donor Sibling Registry (DSR). Second, while we asked people how they discovered their donor conception, we did not assess age at which adults learned about their donor conception. Previous research has shown that age can make a difference in responses to what they want from contact with their donor (Hertz et al., 2013). Future research should address these limitations.

Despite these flaws, our findings contribute new insights to the literatures on attachment and donor conception. Overall, the current study demonstrates that people who are anxious in their attachments with the parents who raised them tend to be more curious about their donor conception than those who are not. But, they are not necessarily more likely to have searched for the donor or established contact with him/her. These results suggest an approach-avoidance conflict (Lewin, 1935). That is, anxiously attached individuals may find the prospect of contacting the donor both appealing and unappealing simultaneously. They are curious about exploring their donor conceived identity, but possibly fear that their donor might not want a relationship with them, so they don't initiate contact.

In a related vein, it is possible that individuals high in attachment anxiety may choose not to find/contact the donor, in fear of disappointing their attachment figures (i.e., biological and/or non-biological, social parents) or appearing too "needy" to the donor. Attachment theory proposes that more insecure individuals will tend to see their parents as providing less effective support for exploration (see Green & Campbell, 2000 for a review), which could negatively impact the decision to approach the donor. Additionally, parents who do not demonstrate sensitivity and responsiveness to their children's needs may discourage them from exploration altogether. Future research should extend this line of work and explore the reasons why donor conceived individuals may or may not contact the donor. Also important is the extent to which individual differences in attachment predict successful or unsuccessful contact attempts.

One reason why highly anxious adults might not seek out the donor is the inherent ambiguity in initiating contact – for example, telling someone that you may be biologically related to him or her. Thus, a potential avenue for future research might involve experimentally manipulating ambiguous cues (ambiguous/unambiguous) to see whether anxious adults perceive ambiguity as threatening to their potential relationship with the donor. Perhaps ambiguity influences one's decision to make contact. Additionally, it would be interesting to examine what happens when contact is made and the donor is not immediately responsive to contact requests (e.g., email, social media, etc.). It might be the case that anxious individuals ruminate or catastrophize about the exchange. Another possibility is that unreciprocated contact may affect their self-reported curiosity about donor conception. These and other similar questions should be investigated.

In closing, Hazan and Shaver (1990) once lamented that the link between attachment theory and adult exploration was not well understood, and they hoped that further research would

"enable the formation of a more powerful and complete theory of adult attachment" (p. 278). Despite its relative importance, research on attachment and identity exploration of donor conception has been neglected. Our work was intended to be a step toward addressing this gap in the literature. Although largely exploratory, the current study is the first to examine the role of individual differences in attachment and donor approach behavior. It is our hope that future research will seek to better understand the conditions under which donor conceived individuals elect to find their donor and establish contact. As the results of our study show, special attention should be devoted to the quality of parental relationships for influencing how people think about their donor conceived identities.

TABLES

Table 1
Factor Loadings for DCIQ Items

Item	F1 (Disengagement)	F2 (Curiosity)
1. I am still trying to figure out how donor conception relates to who I am.	0.35	0.35
2. Being donor conceived makes me feel special.	**-0.47**	0.27
3. I have thought a great deal about donor conception.	-0.03	**0.72**
4. After a conversation about donor conception I tend to feel upset.	**0.66**	0.26
5. It's important for me to be in contact with other donor-conceived individuals.	0.03	**0.64**
6. Being donor conceived is just part of who I am.	**-0.49**	0.18
7. I try to avoid the topic of donor conception because it raises a lot of questions.	**0.68**	-0.16
8. I feel angry that I am donor conceived.	**0.58**	0.31
9. I think a lot about the characteristics I might share with my donor.	0.04	**0.60**
10. Donor conception doesn't enter into my life or my decisions at all.	-0.07	**-0.62**
11. I understand myself better because I have thought about who I am in relation to my parents and donor.	-0.25	**0.46**
12. I feel embarrassed if others know I am donor conceived.	**0.72**	0.09
13. I like to keep my donor conception a secret.	**0.74**	-0.12
14. I am happy to tell anyone about my donor conception	**-0.71**	0.18
15. I feel ashamed of being donor conceived.	**0.71**	0.11
16. I worry about being bullied or teased about being donor conceived.	**0.45**	0.14

Table 2
Means, standard deviations, and correlations among all variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Biological Anxiety	1.00											
2. Biological Avoidance	0.59*	1.00										
3. Social Anxiety	0.33*	0.21*	1.00									
4. Social Avoidance	0.20*	0.31*	0.61*	1.00								
5. Donor Anxiety	0.38*	0.29*	0.13	0.06	1.00							
6. Donor Avoidance	0.12	0.05	-0.04	-0.21	0.33*	1.00						
7. General Anxiety	0.28*	0.30*	0.22*	0.25*	0.30*	0.11	1.00					
8. General Avoidance	0.21*	0.34*	0.17*	0.34*	0.04	0.02	0.40†	1.00				
9. Find	0.08	0.12*	0.06	0.04	0.11	0.02	0.07	0.00	1.00			
10. Contact	0.15	0.17	0.07	0.09	NA	NA	0.09	-0.01	0.36*	1.00		
11. DCIQ Disengagement	0.20*	0.26*	0.18*	0.17*	0.52*	0.08	0.25*	0.29*	0.06	-0.06	1.00	
12. DCIQ Curiosity	0.19*	0.13*	0.21*	0.16*	0.21	-0.35*	0.21*	0.03	0.37*	0.11	0.07	1.00
N	437	438	425	425	50	51	453	453	470	143	429	429
M	1.66	2.95	2.10	3.74	2.68	4.22	4.09	3.42	0.71	0.66	1.89	3.64
SD	1.27	1.78	1.62	1.88	1.82	1.56	1.76	1.33	0.46	0.48	0.76	0.83

Note: Means and SDs presented for raw attachment Avoidance and Anxiety scores, prior to mean centering. Find = whether an attempt has been made to find the donor (no = 0, yes = 1); Contact = whether an attempt has been made to contact the donor (no = 0, yes = 1); DCIQ Disengagement = reluctance to integrate knowledge of donor conception into one's subjective sense of identity (factor average); DCIQ Curiosity = willingness to integrate knowledge of donor conception into one's subjective sense of identity (factor average).
Note: * $p < .05$

Table 3
Logistic Regression Models: Donor Exploration (Attempt to Find Donor; 1 = yes, 0 = no)

Variables	*β*	*SE*	*OR [95% CI]*	R^2
Intercept	0.93*	0.10	2.53 [2.06, 3.11]	.01
General Avoidance	-0.05	0.09	0.95 [0.80, 1.13]	
General Anxiety	0.10	0.06	1.11 [0.97, 1.26]	
Intercept	0.90*	0.11	2.46 [2.00, 3.04]	.02
Biological Avoidance	**0.15***	0.08	1.17 [1.01, 1.36]	
Biological Anxiety	0.03	0.11	1.03 [0.83, 1.29]	
Intercept	0.89*	0.11	2.44 [1.98, 3.02]	.00
Social Avoidance	0.00	0.07	1.01 [0.88, 1.16]	
Social Anxiety	0.08	0.09	1.09 [0.92, 1.29]	

Note: * $p < .05$

Table 4
Logistic Regression Models: Donor Exploration (Attempt to Contact Donor; 1 = yes, 0 = no)

Variables	*β*	*SE*	*OR [95% CI]*	R^2
Intercept	0.70*	0.18	2.01 [1.42, 2.91]	.01
General Avoidance	-0.06	0.15	0.94 [0.70, 1.27]	
General Anxiety	0.13	0.12	1.14 [0.91, 1.44]	
Intercept	0.69*	0.19	2.00 [1.39, 2.94]	.03
Biological Avoidance	0.15	0.14	1.17 [0.88, 1.56]	
Biological Anxiety	0.15	0.22	1.16 [0.77, 1.87]	
Intercept	0.73*	0.19	2.07 [1.43, 3.04]	.01
Social Avoidance	0.09	0.13	1.09 [0.84, 1.43]	
Social Anxiety	0.03	0.18	1.03 [0.73, 1.48]	

Note: * $p < .05$

Table 5
Multiple Regression Models: DCIQ Curiosity

Variables	β	*SE*	R^2
Intercept	3.64*	0.04	.04
General Avoidance	-0.03	0.03	
General Anxiety	**0.11***	0.02	
Intercept	3.64*	0.04	.04
Biological Avoidance	0.01	0.03	
Biological Anxiety	**0.12***	0.04	
Intercept	3.64*	0.04	.05
Social Avoidance	0.03	0.03	
Social Anxiety	**0.09***	0.03	
Intercept	3.67*	0.04	.21
Donor Avoidance	**-0.24***	0.06	
Donor Anxiety	**0.16***	0.05	

Note: * $p < .05$

Table 6
Multiple Regression Models: DCIQ Disengagement

Variables	*β*	*SE*	R^2
Intercept	1.90*	0.04	.11
General Avoidance	**0.13***	0.03	
General Anxiety	**0.07***	0.02	
Intercept	1.90*	0.04	.07
Biological Avoidance	**0.09***	0.03	
Biological Anxiety	0.04	0.04	
Intercept	1.89*	0.04	.04
Social Avoidance	0.04	0.03	
Social Anxiety	0.05	0.03	
Intercept	1.87*	0.04	.27
Donor Avoidance	-0.05	0.06	
Donor Anxiety	**0.23***	0.04	

Note: * $p < .05$

FIGURES

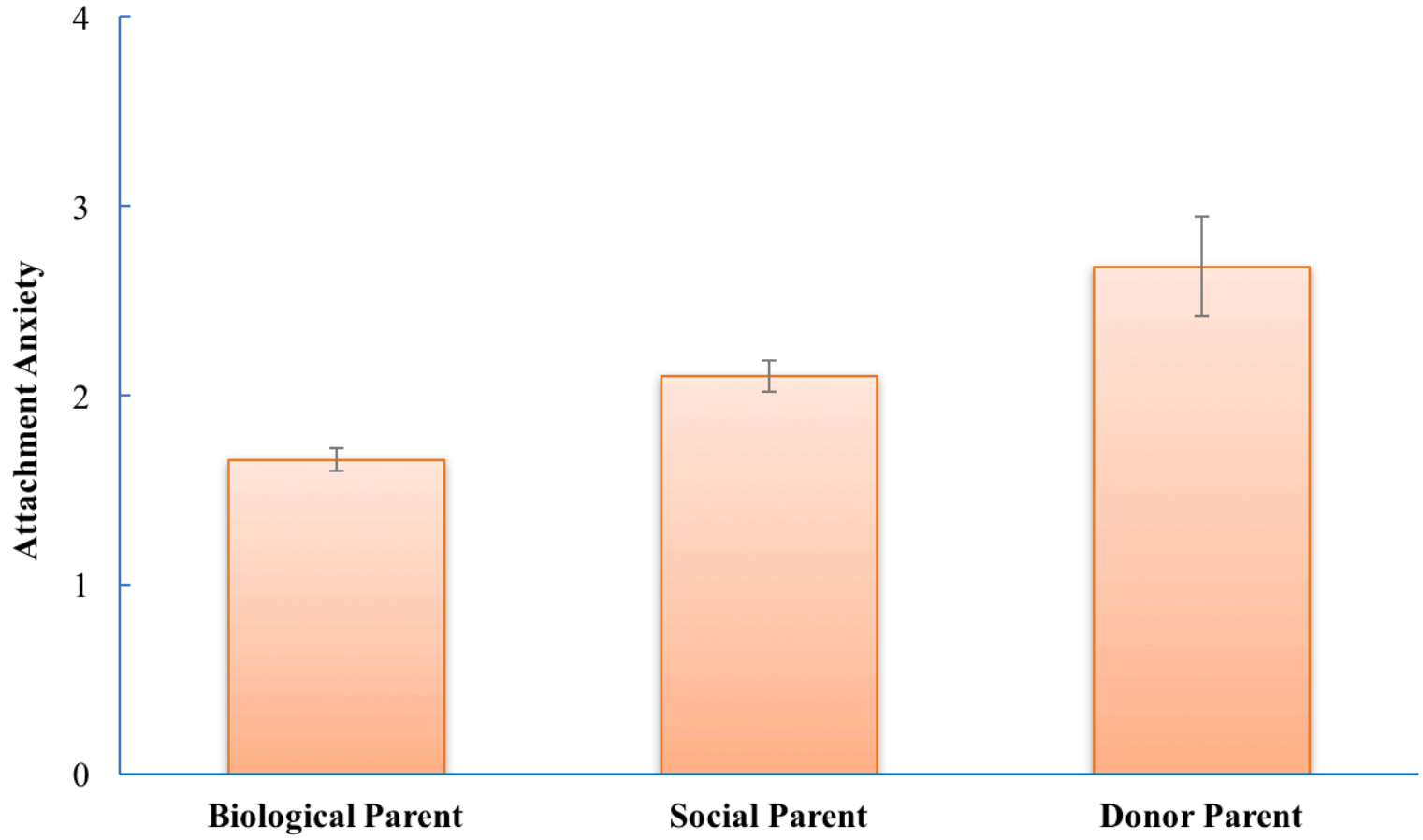

Figure 1. Mean attachment anxiety by parental target. Error bars represent standard errors.

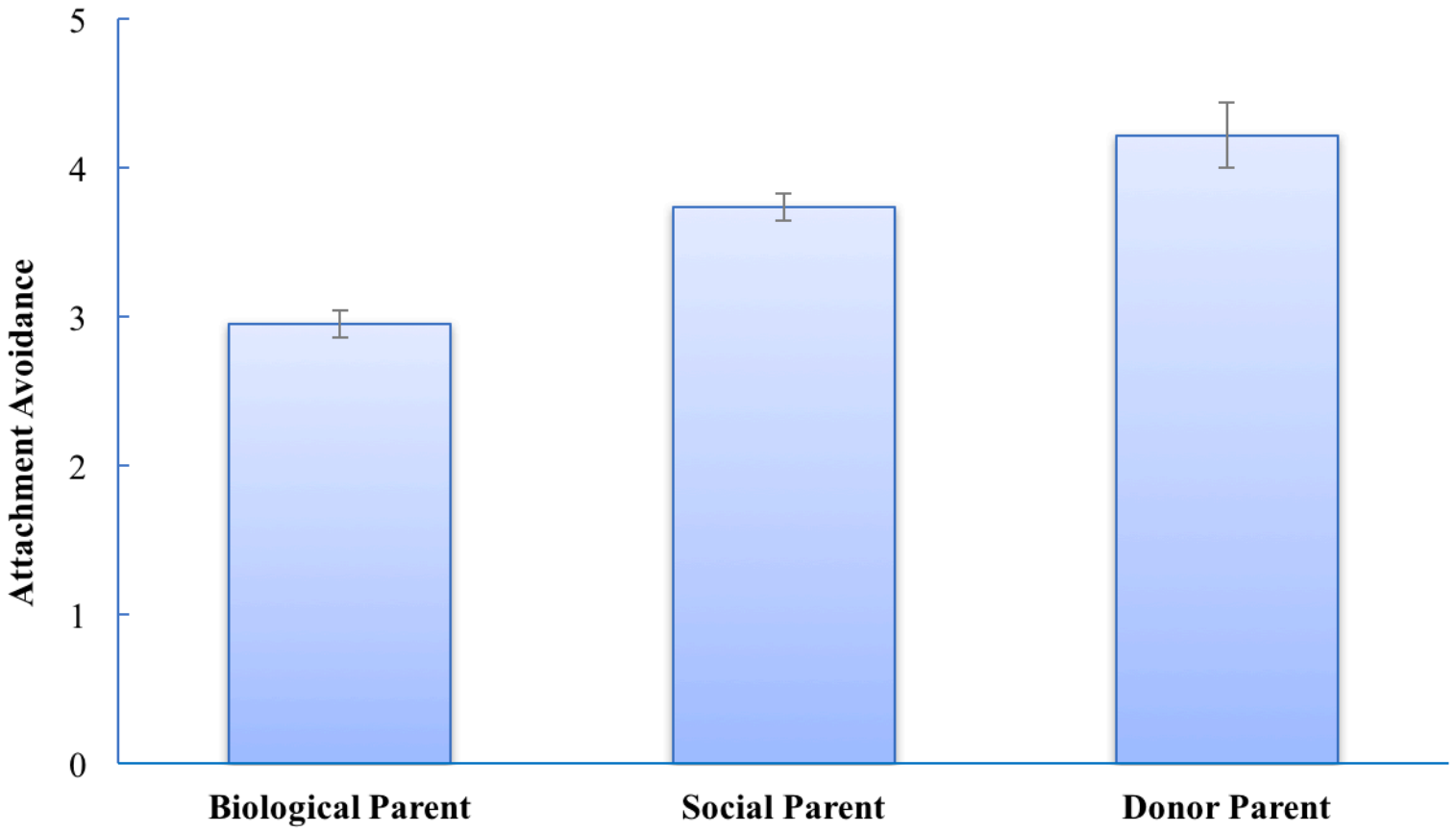

Figure 2. Mean attachment avoidance by parental target. Error bars represent standard errors.

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