Original Article

SEX DIFFERENCES AND PERSONALITY CORRELATES OF SPONTANEOUSLY GENERATED REASONS TO GIVE GIFTS

Peter K. Jonason School of Psychology, University of Western Sydney

Jeremy Tost Department of Psychology and Counseling, Valdosta State

Bryan L. Koenig Institute of High Performance Computing, A*Star, Singapore Department of Psychology, National University of Singapore

Abstract

In an act-nomination (N = 15) and an act-frequency study (N = 235), we attempted to assess spontaneously generated reasons for gift-giving and how these reasons differed across the sexes and as a function of individual differences. Primarily, both sexes gave gifts for special occasions and to build or maintain interpersonal relationships. However, men were more likely than women were to want to build and maintain one particular type of interpersonal relationship, that being romantic/sexual relationships. Men were more likely than women were to give gifts to escalate relationships to sex/dating and as a materetention tactic. Of all the personality traits examined, it was agreeableness that was correlated with the most reasons to give gifts. Moderation by the sex of the participant suggests that men who are low on extraversion and self-esteem may use gifts to do the "talking" for them.

Keywords: Sex differences; personality; gift-giving; act-nomination; act-frequency

Introduction

Whether in primitive (Hawkes, 1993; Mauss, 1925) or modern (Griskevicius et al., 2007; Iredale, Van Vugt, & Dunbar, 2008) cultures, gift-giving is a common and important aspect of human life as highlighted over the last 20 years (Cheal, 1987; Clark, Shaver, & Abrahams, 1999; Dindia & Baxter, 1987). In general, the reasons Americans give gifts revolve around special occasions, relationship maintenance, and relationship escalation (Griskevicius et al., 2007; Jonason, Cetrulo, Madrid, & Morrison, 2009); however, it is possible that what we know suffers from investigator bias through a

AUTHOR NOTE: Please direct correspondence to Peter K. Jonason, University of Western Sydney, Bankstown Campus, Office: 24.G.34, Locked Bag, 197, Penrith SW 2751 Australia. Email: p.jonason@uws.edu.au

©2012 Journal of Social, Evolutionary, and Cultural Psychology

reliance on purely quantitative methodologies (e.g., the creation of author-generated scales/measures). Therefore, a mixed-methods study that does not constrain the reasons individuals give gifts is warranted. Using the act-nomination/frequency technique (Buss & Craik, 1983), we attempt to ascertain the reasons individuals give gifts, whether sex differences exist in the reasons, and the manner in which personality traits relate to the reasons. Using this technique, one sample is asked to qualitatively report on why they give gifts. In a second sample, individuals are asked how much those same reasons apply to why they give gifts. Although this technique has its limitations (e.g., exploratory), it allows for a blending of qualitative and quantitative techniques that should not be undervalued.

Ultimately, gifts, in some way, forge alliances between individuals. For example, gifts are given at special occasions and to show affection (Goldberg, 1995; Latané, 1970). In the West, where most of the psychological research on gift-giving has been done, the exchange of gifts is most pronounced during the holidays. For instance, individuals spend money on gifts for a variety of other people during the Christmas season (Jonason et al., 2009). In tribal societies, gift-giving might be done in order to gain status and to forge alliances with other tribes (Hawkes & Bliege-Bird, 2002). However, given the reliance on Western samples in most research on gift-giving in psychology and the use of such a sample here, we expect the primary reasons individuals give gifts should be related to establishing social ties (e.g., returning favors, special occasions).

Despite these overall patterns, we also expect sex differences to be important in understanding gift-giving. Women tend to be more involved in the gift-giving process, offer more gifts (Caplow, 1982; Fischer & Arnold, 1990), spend more money on average (Rucker et al., 1991; see Jonason et al., 2009 for evidence to the contrary), be more satisfied with their gift-selection (Fischer & Arnold, 1990), and provide more gifts to kin and friends (Hamilton, 1964; Latané, 1970) than men do. This may be because women are more oriented towards maintaining social relationships than men are (Buhrke & Fuqua, 1987; Jonason et al., 2009). We expect women to be more likely than men are to give gifts to build and maintain existing relationships (e.g., special occasions).

In contrast, men may use gifts more strategically, specifically, as a means to reach their reproductive goals more than women do (Jonason et al., 2009) and give gifts almost exclusively to potential or present mates (Clark, Shaver, & Abrahams, 1999; Greer & Buss, 1994; Saad & Gill, 2003). For instance, when asked how much money men spent on different individuals over a holiday season, men reported allocating their money to present and future mates whereas women spread their budget across broad categories of individuals like co-workers and family (Jonason et al., 2009). Therefore, we expect that men will be more likely than women are to report gift-giving reasons related to mate-retention (e.g., to keep the relationship from breaking up) and relationship escalation (e.g., to get the person to go on a date with me).

We know little about how personality traits are related to reasons to give gifts. Most research on gift-giving comes from business psychologists (Belk, 1976, 1979, 1988; Goodwin, Smith, & Spiggle, 1990), evolutionary social psychologists (Griskevicius at al., 2007; Iredale, Van Vugt, & Dunbar, 2008; Saad & Gill, 2003), or sociologists (Caplow, 1982; Carrier, 1991; Cheal, 1987). These researchers may not be particularly interested in personality traits per se. Gift-giving does appear to be associated with an individual's willingness to engage in casual sex behaviors and attitudes — one personality trait — related to casual sex (Jonason et al., 2009). In contrast, the present study extends previous

research on the personality correlates of gift-giving by examining the correlations amongst the Big Five, self-esteem, sociosexuality and the reasons individuals give gifts.

If individuals give gifts to build social alliances and maintain relationships (Hamilton, 1964; Latané, 1970), giving gifts may be a function of being a "nice person" (Goldberg, 1995). If we accept this premise, we should then expect gift-giving for prosocial reasons (e.g., relationship building and maintenance), to be positively correlated with agreeableness, an ostensible measure of "niceness". In contrast, we would expect agreeableness to be negatively correlated with reasons to give gifts that are related to extracting something from the other person, what we might consider more antisocial reasons (e.g., target manipulation). Those who have antisocial personality traits have a selfish mindset (Jonason, Li, & Teicher, 2010) and are characterized by disagreeableness (Paulhus & Williams, 2002). As a measure of "prosociality," or willingness to be nice to others, we expect agreeableness to be positively related to reasons to give gifts that relate to a prosocial orientation to individuals (e.g., show the person affection) and negatively associated with strategic/self-interested reasons (e.g., to get the person to owe me something) and reasons related to relationship manipulation (e.g., get the person to have sex with me).

In addition, sociosexuality should be positively correlated with reasons related to escalating a relationship to sex (i.e., to get the other person to have sex with me) as those unrestricted in sociosexuality may use gifts as means of satisfying their sexual agenda. Those who are more oriented towards casual sex may employ a more exploitive social style (Jonason, Li, & Teicher, 2010; Jonason & Webster, 2010). As a function of being more oriented to take advantage of others for sexual purposes, those who have an unrestricted sexuality may attempt to use gifts as a means of "buying" access to sex/affection.

Alternatively, those with low self-esteem may not feel they embody the traits necessary to win the affections of others. Additionally, those with low self-esteem may be neurotic; a trait not desired in partners and related to increased divorce rates (Botwin, Buss, & Shackelford, 1997). In an effort to compensate for their lower self-perceived value in the market, individuals with low self-esteem may attempt to use gifts as a means to supplement their limited value. That is, gifts may act as part of a person's mate searching strategies (Greer & Buss, 1994). Therefore, we predict that those low on self-esteem will be more likely to use gifts to persuade others to have feelings for the giver than those high on self-esteem.

We also explore moderation by the sex of the participant given these previously discussed correlations. We expect one general pattern when assessing moderation by the sex of the participant. Men who are low on extraversion and self-esteem may not have the social skills and confidence to get women to date them and may use gifts as a means to counteract this deficit. That is, those men who suffer from limited self-esteem and introversion may use gifts as a mate searching strategy that offsets the interpersonal handicaps created by their disposition. In contrast, because women who are high on self-esteem may see themselves as "worth" men's investment, the correlation should be the opposite direction in women. Therefore, we expect the correlations between reasons to give gifts and extraversion and self-esteem to be negative in men and flat in women.

Although there has been much work on gift-giving, this work may suffer from investigator bias by relying purely on quantitative methodologies. In order to ensure investigator bias has not limited past research, we used an act-nomination/frequency methodology. By using a mixed-methods study, we hope to provide a more ecologically

valid assessment of reasons to give gifts. By using this method, we can enhance our knowledge about gift-giving by assessing individual differences and personality traits as related to the reasons we give gifts.

Method

Act-Nomination

Fifteen students (65% male) in a weekend psychology course were asked, in an open-ended, focus-group style format, what the reasons were they gave gifts to others in a general sense (i.e., not in any particular context). Participants were seated in a classroom and were asked "why do you give gifts?". These answers were written on a chalkboard and were later transcribed by the first author. There were a total of 12 reasons revealed in this process. Items reflected results from previous research. For instance, items expressed special occasion (Goldberg, 1995), mate searching (Iredale, Van Vugt, & Dunbar, 2008), and mate-retention (Jonason et al., 2009).

Act-Frequency

Two hundred and thirty-five psychology students (41% male), aged 18 to 42 years old (M = 20.69, SD = 3.76), from the Southwestern U.S. received course credit for filling out the survey described below. Sixty-eight percent were single, 25% were involved in a relationship, and 7% were nonresponsive. Participants completed packets in a lab set up for mass-testing, where as many as ten other people could participate at that time with at least one seat in between them as they participated. Once they completed the packets, they were debriefed and thanked for participation.

Measures

Participants were asked how much they felt $(1 = not \ at \ all; 5 = very \ much)$ each reason from the act-nomination portion described why they give gifts to others. The full list of these statements is in Table 1.

To measure the Big Five, we used the TIPI (Gosling, Rentfrow, & Swann, 2003), a short, ten-item measure that asks two questions for each dimension. Participants were asked, for instance, how much ($1 = not \ at \ all$; $5 = very \ much$) they think of themselves as "extraverted, enthusiastic" and "quiet, reserved" (reverse-scored) as indicators of Extraversion. Estimates of internal consistency returned low rates: Extraversion (Cronbach's $\alpha = .55$), Agreeableness ($\alpha = .22$), Conscientiousness ($\alpha = .44$), Neuroticism ($\alpha = .38$), and Openness ($\alpha = .29$), as is to be expected for scales composed of a small number of items (Kline, 2000). To address this, however, we report correlations that we corrected for attention from measurement error in Table 2 for these scales (Cohen, Cohen, West, & Aiken, 2002).

Sociosexuality was measured with the Sociosexuality Orientation Index (Simpson & Gangestad, 1991). Participants were asked how much they agreed (1 = $strongly\ disagree$; 9 = $strongly\ agree$) with statements like: "I can imagine myself being comfortable and enjoying casual sex with different partners." Prior to computing scale means and averaging as an index (α = .80), individual items were standardized (z-scored).

Global self-esteem was measured with the 10-item Rosenberg's Self-Esteem Scale (1965). Participants were asked how much they agreed (1 = strongly disagree; 4 = strongly agree) with statements like: "I feel that I am person of worth, at least on an equal basis with others." The ten items were averaged to create an index of self-esteem (α = .80).

Results

Descriptive statistics for reasons for gift-giving are presented in Table 1, suggesting people primarily ascribed prosocial reasons, such as marking a special occasion, to their gift-giving. To a much lesser extent, participants ascribed social exchange or manipulative gift-giving reasons, such as trying to make the gift recipient feel as though he/she owes something to the gift-giver.

However, this overall pattern masked an informative pattern of sex differences. A 2 (participant sex) \times 12 (gift-giving reasons) mixed-model Analysis of Variance (ANOVA), revealed a between-subjects main effect of participant's sex, F(1, 242) = 36.50, p < .01, $\eta_p^2 = .13$, a within-subjects effect for gift-giving reasons, F(11, 232) = 314.04, p < .01, $\eta_p^2 = .57$, and a significant interaction, F(11, 232) = 7.56, p < .01, $\eta_p^2 = .30$. The interaction reflected sex differences for some, but not all, gift-giving reasons (see Table 1). The two gift-giving reasons that did not differ for men and women (i.e., special occasion and to show of affection) were also reported the most commonly as reasons to give gifts. The largest sex differences were related to initiating mateships, attempting to get the gift recipient either to have sex or to go out on a date. In sum, whereas men and women primarily gave gifts for prosocial reasons, men, to a greater degree than women, gave gifts in hopes of relationship escalation or mate-retention.

In Table 2, we report correlations between the Big Five, Sociosexuality, and Self-Esteem with the reasons to give gifts. As expected, agreeableness was the most associated with reasons to give gifts. Agreeableness was negatively correlated with giving gifts to get the recipient to have sex with the giver, to go out on a date with the giver, to not break up with the giver, and to create a debt, but was positively correlated with giving gifts for a special occasion. Sociosexuality was positively correlated with giving gifts to get the person to have sex with the giver, to return favors, and to apologize for a mistake. Extraversion was negatively correlated with giving a gift to get the recipient to love the giver. Conscientiousness was positively correlated with giving gifts for special occasions. Openness was positively correlated with giving gifts to get the recipient to love the giver. Self-esteem was negatively correlated with giving gifts to get the recipient to love or date the giver and to return a favor and positively correlated with giving a gift for a special occasion.

There was evidence of moderation – using Fisher's z to compare correlation coefficients – by the sex of the participant (see Table 3). We confirmed our prediction that men who are low on Extraversion and Self-Esteem may use gifts to supplement their limited sociability. They were found to give gifts in order to maintain relationships, to initiate relationships, and to express affection. In order to reduce Type I error from multiple comparisons, we only report the results referring to our predictions. A full correlation matrix by the sex of the participant can be obtained by contacting the first author, but there was generally limited evidence for moderation by the sex of the participant.

Table 1. Descriptive Statistics and Sex Differences Tests

Reasons for gift-giving	Overall	Men	Women	t	g
Because it is a special occasion	4.57 (0.69)	4.55 (0.72)	4.59 (0.68)	-0.40	-0.05
To show the person affection	4.10 (0.93)	4.09 (0.89)	4.12 (0.96)	-0.23	-0.03
To apologize for a mistake	3.00 (1.16)	3.27 (1.15)	2.81 (1.13)	3.12**	0.40
Because the other person bought me something	2.90 (1.17)	3.10 (1.22)	2.75 (1.12)	2.31*	0.30
To return a favor	2.88 (1.25)	3.15 (1.18)	2.68 (1.26)	2.92**	0.38
To get them to go on a date with me	2.02 (1.16)	2.58 (1.13)	1.65 (1.02)	6.73**	0.87
To ingratiate myself to someone	2.00 (1.04)	2.29 (1.04)	1.80 (1.00)	3.72**	0.48
To get the person to love me	1.96 (1.19)	2.21 (1.25)	1.79 (1.11)	2.79**	0.36
To keep the relationship from breaking up	1.91 (1.15)	2.31 (1.27)	1.65 (0.98)	4.59**	0.60
To get the person to have sex with me	1.63 (1.02)	2.20 (1.22)	1.25 (0.61)	8.05**	1.04
Because I am hoping they will return the favor to me in someway	1.60 (0.91)	1.76 (1.08)	1.50 (0.75)	2.25*	0.29
Because I want them to feel as if they owe me something	1.16 (0.54)	1.28 (0.75)	1.08 (0.30)	2.84**	0.37

^{*} p < .05, ** p < .01; g is Hedge's g which is interpreted like Cohen's d but adjusts for sample size differences.

Table 2. Zero-order (and Corrected for Measurement Error) Correlations Between Measure of Personality and Reasons to Give Gifts

Reasons for gift-giving	SOI	E	A	C	ES	О	SE
To get the person to love me	.01	17** (23**)	01 (02)	11 (17**)	04 (06)	14* (26**)	16*
To get other person to have sex with me	.25**	07 (09)	14* (30**)	07 (11)	.04 (06)	.02 (.04)	11
To show the person affection	10	06 (08)	.19* (.41**)	05 (08)	06 (10)	05 (09)	02
To get them to go on a date with me	.12	05 (07)	16* (34**)	01 (02)	03 (05)	02 (04)	13*
Because it is a special occasion	03	.12 (.16*)	.14* (.30**)	.17** (.26**)	.06 (.10)	02 (04)	.14*
To keep the relationship from breaking up	.05	.01 (.01)	19** (41**)	.03 (.05)	13 (21**)	07 (13)	12
Because the other person bought me something Because I want them to feel as if they owe me	.17**	.00 (.00)	05 (11)	.03 (.05)	09 (.15*)	04 (07)	09
something	.08	03 (04)	15* (32**)	09 (14)	04 (06)	01 (02)	11
Because I am hoping they will return the favor to me in someway	.12	01 (01)	17** (36**)	11 (17**)	10 (16*)	03 (06)	14*
To apologize for a mistake	.17**	.03 (.04)	.00 (.00)	01 (02)	02 (03)	07 (13)	07
To return a favor	.17**	02 (02)	05 (17**)	.01 (.02)	05 (08)	05 (09)	04
To ingratiate myself to someone	.03	01 (01)	08	.07 (.11)	.03 (.05)	05 (09)	10

^{*} p < .05, ** p < .01; SOI = sociosexual orientation index; E = extraversion; A = agreeableness; C = conscientiousness; ES = emotional stability; O = openness; SE = self-esteem.

Table 3. By-sex Correlations Between Measures of Personality and Reasons to Give Gifts

	Extraversion					
Reasons for gift-giving	Men	Women	z	Men	Women	z
To get the person to love me	32**	06	-2.07*	30**	07	-1.82*
To get the person to have sex with me	11	.02	-0.99	13	09	-0.31
To get them to go on a date with me	21*	.09	-2.31*	22*	07	-1.17
Because it is a special occasion To keep the relationship from	02	.21*	-1.78*	.02	.22*	-1.55
breaking up	11	.15	-1.99*	21*	05	-1.24
Because the other person bought me something	.02	02	0.31	08	08	0.00
Because I want them to feel as if they owe me something	11	.11	-1.68*	20*	01	-1.47
Because I am hoping they will return the favor to me in someway	13	.11	-1.84*	18	12	-0.47
To apologize for a mistake	10	.13	-1.76*	13	03	-0.77
To ingratiate myself to someone	12	.08	-1.53	12	08	-0.31

^{*} *p* < .05, ** *p* < .01

Discussion

Gift-giving is an important aspect of interpersonal relationships (Saad & Gill, 2003; Sanderson, Keiter, Miles, & Yopyk, 2007). The present study used an act-nomination/frequency technique, combining qualitative and quantitative methodologies to better understand gift-giving. By so doing, we have verified past work in showing, for instance, that men primarily give gifts to escalate relationships to sex (Iredale, Van Vugt, & Dunbar, 2008) or to maintain an existing romantic relationship (Jonason et al., 2009). In addition, by verifying past work (e.g., Griskevicius et al., 2007; Iredale, Van Vugt, & Dunbar, 2008; Saad & Gill, 2003), we have shown that past work may not have suffered from investigator bias in the reasons studied for gift-giving, and have provided insights into how personality traits may be associated with the reasons individuals give gifts.

Overall, participants reported giving gifts for special occasions, showing affection, and apologizing for mistakes. This is consistent with research suggesting the primary role of gift-giving is for forming interpersonal alliances (Goldberg, 1995; Hamilton, 1964; Latané, 1970). However, consistent with previous work (Saad & Gil, 2003), men and women in the current sample did differ in their reasons to give gifts. Women appear to give gifts to form interpersonal alliances more so than men did. Women appear to be more oriented towards maintaining social relationships than men are (Buhrke & Fuqua, 1987; Jonason et al., 2009). In contrast, men reported reasons to give gifts centering on relationship-escalation and mate-retention, consistent with prior work suggesting men use gifts to signal their willingness to invest in their mates (Griskevicius at al., 2007; Iredale, Van Vugt, & Dunbar, 2008) and for mate-retention (Jonason et al., 2009).

Beyond replicating sex differences for reasons individuals give gifts, we explored the association of personality traits with those same reasons. Most notably, agreeableness was related to the most of the reasons. The tendency to want to please others -- having an

agreeable nature -- may be an important personality dimension related to prosocial gift-giving. Forming social relationships is a somewhat obvious outcome of being a "nice" or agreeable person. Being caring is part of being agreeable (DeYoung, Quilty, & Peterson, 2007; Digman & Inouye, 1986) and being caring is fundamentally a part of gift-giving as reflected in the reasons reported in the act-nomination portion.

Sociosexuality was also associated with reasons to give gifts. As expected, sociosexuality was positively correlated with the reason of getting the other person to engage in sex. However, it was also positively correlated with gift-giving to return a favor, to apologize for a mistake, and "because the person bought something for me." It may be that those who have a disposition towards casual sex may have interpreted all the reasons with a "sex-colored" lens given their disposition towards casual sex. That is, the only reason they would give gifts is for sexual access and all of the reasons might facilitate sexual access in one way or another.

Self-esteem was also related to a number of reasons to give gifts. Low self-esteem was associated with giving gifts to get the person to love them, to get them to go on a date with them, in hopes of having a favor returned, and giving a gift for a special occasion. Self-esteem, along with extraversion, also proved important when we considered moderation by the sex of the participant. Those men who were low on these traits were more likely to give gifts in pursuit of their reproductive agenda. In contrast, the correlations were negative in women. This suggests women who are high on these traits may embody qualities that allow them to not have to give gifts to their mates, instead waiting for their suitors to invest in them. We would argue that because of the central role of extraversion in social relationships for men (see Nettle, 2007); those men who have low levels of extraversion might need to find strategies to counteract this limitation. One strategy may be gift-giving. That is, because these men are at a "loss for words" they may use gifts to do the "talking" for them. Therefore, it might be adaptive for men who are low on these traits to offer gifts to increase their inclusive fitness.

The application of gift-giving does appears to differ across cultures (Saad & Gill, 2003). Across different cultures, the commodities that men may offer as gifts are likely to be reflected by social learning and local customs. For instance, in tribal societies, males who provide gifts of animal meat have greater success securing mates (Hawkes, 1993; Hawkes & Bliege Bird, 2002). In truth, the limited number of reasons provided in the actnomination portion of the study may be a function of socially learned rules about what people buy as gifts or even a function of the economics of college-students. The reasons individuals give gifts could also be a function of the goals individual have coupled or constrained by local customs and ecological conditions. For instance, in poor environments gifts of food might be more highly valued whereas in richer environments less essential gifts like watches may be offered. It would be interesting to learn how local socioecological conditions modulate the types of gifts individuals give.

The present study suffers from four limitations worth mentioning. First, the motivations to give gifts may differ as per recipient. That is, men and women may give gifts for different reasons to lovers, family, friends, and strangers (Jonason et al., 2009). By not specifying the target, we may have introduced some noise into our effects and associations.

Second, the act-nomination portion of the study could have been revised to allow participants to first privately nominate reasons for giving gifts rather than having them nominate these reasons in a group. Act-nominations conducted in the presence of others, particularly in mixed-sex groups, affect participant's responses (Morgan, 1997).

Although we may have skirted investigator bias, the reasons generated in the actnomination portion of the study are only those conscious to participants.

Third, the measure of the Big Five was extremely brief and as a result suffers from low levels of internal consistency. In contrast, the internal consistency of the sociosexuality and self-esteem measures were at acceptable levels. However, given the descriptive approach taken presently, we can afford to suffer some ill-effects of measurement error (Schmitt, 1996). Nevertheless, future research might validate our findings with more comprehensive measure of the Big Five.

Fourth, it may be that the language developed from the act-nomination portion of the study was beyond the comprehension ability of some involved in the act-frequency portion. For example, some participants might not understand the reason, "to ingratiate myself to someone." While the potential for misunderstanding is always relevant, in the current study, instances for such confusion were few. Research assistants reported that none of our participants asked for clarification on any of the questions. Moreover, each sample was gathered at one university in the Southwestern U.S. and thus, words generated in the act-nomination sample were provided by fellow students at the same university as the act-frequency sample.

Gift-giving has been studied across business psychology, evolutionary social psychology, and sociology. In the present study, we conducted an actnomination/frequency study (Buss & Craik, 1983) to ascertain (1) the primary reasons for gift-giving, (2) how men and women differ and are similar in their reasons to give gifts, and (3) how personality traits are related to reasons to give gifts. In short, gifts are mostly given to build relationships but men tend to be more concerned with giving gifts for mating purposes and different people, as measured in personality traits, endorse a variety of reasons to give gifts.

Received March 19, 2011; Revision received September 14, 2011; Accepted March 14, 2012

References

- Belk, R. W. (1976). It's the thought that counts: A signed diagraph analysis of gift-giving. *Journal of Consumer Research*, *3*, 155-162.
- Belk, R. W. (1979). Gift-giving behavior. Research in Marketing, 2, 95-126.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, 15, 139-417.
- Botwin, M. D., Buss, D. M., & Shackelford, T. K. (1997). Personality and mate preferences: Five factors in mate selection and satisfaction. *Journal of Personality*, 65, 107-136
- Buhrke, R. A., & Fuqua, D. R. (1987). Sex differences in same- and cross-sex supportive relationships. *Sex Roles*, *17*, 339-352.
- Buss, D. M., & Craik, K. H. (1983). The act frequency approach to personality. *Psychological Review*, *90*, 105-126.
- Caplow, T. (1982). Christmas gifts and kin network. *American Sociological Review*, 47, 383-392.
- Carrier, J. (1991). Gifts, commodities, and social relations: A Maussian view of exchange. *Sociological Forum*, *6*, 119-136.

- Cheal, D. (1987). Showing them you love them: Gift-giving and the dialectic of intimacy. *Sociological Review*, *35*, 150-169.
- Clark, C. L., Shaver, P. R., & Abrahams, M. F. (1999). Strategic behaviors in romantic relationships. *Personality and Social Psychology Bulletin*, 25, 709-722.
- Cohen, P., Cohen, J., West, S. G., & Aiken, L. S., (2002). *Applied multiple regression/correlation analysis for the behavioral science*. New York: Routledge Academic.
- DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, *93*, 880-896.
- Digman, J. M., & Inouye, J. (1986). Further specification of the five robust factors of personality. *Journal of Personality and Social Psychology*, 50, 116-123.
- Dindia, K., & Baxter, L. A. (1987). Strategies for maintaining and repairing marital relationships. *Journal of Social and Personal Relationships*, 4, 143-158.
- Fischer, E., & Arnold, S. J. (1990). More than a labor of love: Gender roles and Christmas gift shopping. *Journal of Consumer Research*, 17, 333-344.
- Goldberg, T. L. (1995). Altruism towards panhandlers: Who gives? *Human Nature*, *6*, 79-89.
- Goodwin, C., Smith, K. L., & Spiggle, S. (1990). Gift-giving: Consumer motivation and the gift purchase process. In M. Goldberg et al. (Eds.), *Advances in consumer research* (Vol. 17, pp. 690-698). Provo, UT: Association for Consumer Research.
- Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, 37, 504–528.
- Greer, A. E., & Buss, D. M. (1994). Tactics for promoting sexual encounters. *The Journal of Sex Research*, 31, 185-201.
- Griskevicius V., Tybur, J. M., Sundie, J. M., Cialdini, R. B., Miller, G. F., & Kenrick, D. T. (2007). Blatant benevolence and conspicuous consumption: When romantic motives elicit strategic costly signals. *Journal of Personality and Social Psychology*, 93, 85-102.
- Hamilton, W. D. (1964). The genetic evolution of social behavior I and II. Journal of Theoretical Biology, 7, 1-52.
- Hawkes, K. (1993). Why hunter-gatherers work: An ancient version of the problem of public goods. *Current Anthropology*, *34*, 341-361.
- Hawkes, K., & Bliege-Bird, R. (2002). Showing off, handicap signaling, and the evolution of men's work. *Evolutionary Anthropology*, 11, 58-67.
- Iredale, W., Van Vugt, M., & Dunbar, R., (2008). Showing off in humans: Male generosity as a mating signal. *Evolutionary Psychology*, *6*, 386-392.
- Jonason, P. K., Cetrulo, J. F., Madrid, J. M., & Morrison, C. (2009). Gift-giving for courtship or mate-retention?: Insights from animal models. *Evolutionary Psychology*, 7, 89-103.

- Jonason, P. K., Li N. P., & Teicher, E. A. (2010). Who is James Bond?:The Dark Triad as an agentic social style. *Individual Differences Research*, 8, 111-120.
- Jonason, P. K., & Webster, G. D. (2010). The Dirty Dozen: A concise measure of the Dark Triad. *Psychological Assessment*, 22, 420-432.
- Kline, P. (2000). *The handbook of psychological testing* (2nd ed.). London: Routledge.
- Latané, B. (1970). Field studies of altruistic compliance. *Representative Research* in Social Psychology, 1, 49-61.
- Mauss, M. (1925). *The gifts: Form and functions of exchange in archaic societies*. New York: Norton.
- Morgan, D. L. (1997). *Focus groups as qualitative research*. (2nd ed.). Thousand Oaks: Sage Publications.
- Nettle, D. (2007). Individual differences. In R.I.M. Dunbar, & L. Barrett (Eds.), *Oxford handbook of evolutionary psychology* (pp. 479–490). Oxford, UK: Oxford University Press.
- Paulhus, D. L., & Williams, K. M. (2002). The dark triad of personality: Narcissism, Machiavellianism, and psychopathy. *Journal of Research in Personality*, *36*, 556-563.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rucker, M., Leckliter, L., Kivel, S., Dinkel, M., Frietas, T., Wynes, M., and Prato, H. (1991). When the thought counts: Friendship, love, gift exchanges and gift returns. In R. Holman and M. Solomon (Eds.), *Advances in consumer research* (Vol. 18, pp. 528-531). Provo, UT: Association for Consumer Research.
- Saad, G., & Gill, T. (2003). An evolutionary psychology perspective on gift-giving among young adults. *Psychology and Marketing*, 20, 765-784.
- Sanderson, C. A., Keiter, E. J., Miles, M. G., & Yopyk, D. J. A. (2007). The association between intimacy goals and plans for initiating dating relationships. *Personal Relationships*, *14*, 225-243.
- Schmitt, N. (1996). Uses and abuses of coefficient alphas. *Psychological Assessment*, 8, 350–353.
- Simpson, J. & Gangestad, S. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology*, 60, 870-883.