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Short Communication

Coalitional mate retention is correlated positively with friendship quality involving women, but negatively with male–male friendship quality

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# ABSTRACT

Friendship solved adaptive problems over human evolutionary history, including cooperative hunting and alloparenting. Pham, Barbaro, and Shackelford (in press) investigated another potential function of friendship: the provision of coalitional mate retention, whereby individuals ask an ally to assist with thwarting their romantic partner's infidelity. In the current research, 387 participants (176 women) reported how often they requested or received coalitional mate retention from a male friend and from a female friend and reported on the quality of each friendship. The results indicate that the deployment of coalitional mate retention is *positively* associated with the quality of friendships with women (female-female friendships, male-female friendships, female-male friendships), but *negatively* associated with the quality of male-male friendships.

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# 1. Introduction

Over human evolutionary history, same-sex friendships solved sex-specific adaptive problems. Men more than women recurrently faced adaptive problems involving violence and, therefore, prefer athletic same-sex friends (Lewis et al., 2011). Women more than men recurrently faced adaptive problems associated with heavier parental investment and, therefore, prefer nurturing same-sex friends (Kuhle & Radtke, 2013).

Opposite-sex friend preferences differ from same-sex friend preferences. Men prefer opposite-sex friends who are physically attractive and women prefer opposite-sex friends who command expendable resources and display physical prowess (Lewis et al., 2011). Opposite-sex friend preferences are similar to mate preferences, suggesting that individuals perceive opposite-sex friends to be potential romantic partners (Lewis, Al-Shawaf, Conroy-Beam, Asao, & Buss, 2012). In fact, opposite-sex friends are sometimes successful at "mate poaching"–luring individuals away from their romantic relationships (Mogilski & Wade, 2013).

Pham, Barbaro, and Shackelford (in press) investigated another function of friendships: the provision of coalitional mate

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their romantic partner's infidelity (see Buss, 1988). Pham et al. developed an inventory of coalitional mate retention behaviors ranging from positive (e.g., an ally says positive things to the partner) to negative (e.g., an ally deploys violence against potential rivals). Although there are benefits to coalitional mate retention (e.g., individuals who are geographically distant from their partner can ask their friend to monitor their partner's behaviors), there also are costs. For example, mate poachers may sabotage their friends' romantic relationships (Schmitt & Buss, 2001). Mate poaching is particularly problematic when requesting coalitional mate retention-a strategy that may advertise that one's romantic relationship is unstable, and which sometimes requires that allies (i.e., potential mate poachers) spend time with a romantic partner (e.g., coalitional mate retention involving monopolizing time). Deploying coalitional mate retention requires sharing personal information with an ally (e.g., they may be an undesirable romantic partner). Following friendship dissolution, such information could be used to impugn the former friend's reputation (Shackelford & Buss, 1996).

retention-when individuals ask their ally to assist with thwarting

Although sharing personal information is important for men's and women's friendships, sharing information is especially important for women. Women share more person information with their friends than do men (Morton, 1978), and women feel more betrayed than do men if their friends do not share personal information with them (Shackelford & Buss, 1996). Men may even





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share personal information with their female friends because "women push men into talking about their relationships" (p. 17; Greif, 2008). Because sharing personal information is crucial to maintaining friendships involving women, and because sharing personal information is necessary when deploying coalitional mate retention, we hypothesize that deployment of coalitional mate retention will be *positively* associated with the quality of friendships involving women: male–female friendships, and female–male friendships (Hypothesis 1).

Sharing information and deploying coalitional mate retention may differ in male-male friendships relative to other friendship contexts. Men share less information with friends because reputational damage may be particularly harmful for men (Shackelford & Buss, 1996): Men's more than women's resource acquisition (and access to mates) depends on their social network of same-sex friends (e.g., coalitional combat, cooperative hunting). Men's same-sex friendships more than women's same-sex friendships solve adaptive problems such as coalitional combat and cooperative hunting that depend less on the exchange of personal information (Shackelford & Buss, 1996). Requesting coalitional mate retention may display vulnerability by signaling one's dependence on others to manage one's romantic relationship. This displayed vulnerability may be particularly harmful for men because men's more than women's mate value is linked with their masculinity (Sell, Tooby, & Cosmides, 2009). For example, men do not regularly seek medical care (i.e., admit weakness), and often do so only on repeated requests from their female friends and relatives (O'Brien, Hunt, & Hart, 2005).

Men relative to women inflict heavier retaliatory costs on mate poachers, which may dissuade the deployment of coalitional mate retention between male friends. Men relative to women inflict more violence on mate poachers (Buss, 1988). In fact, male sexual jealousy is a leading cause of homicide (Daly, Wilson, & Weghorst, 1982). Thus, men may be reluctant to provision coalitional mate retention for their male friends to avoid the appearance of mate poaching (e.g., an ally monopolizing a partner's time). Because men receive fewer benefits and incur greater costs from sharing personal information with male friends, and because sharing personal information is necessary for deploying coalitional mate retention, we hypothesize that the deployment of coalitional mate retention will be *negatively* associated with the quality of malemale friendships (Hypothesis 2).

We measured friendship quality along six dimensions with the McGill Friendship Questionnaire (Mendelson & Aboud, 1999): Help (e.g., "helps me when I need it"), Intimacy (e.g., "know when something bothers me"), Reliable Alliance (e.g., "would stay my friend even if other people did not like me"), Stimulating Companionship (e.g., "is exciting to talk to"), Self-Validation (e.g., "makes me feel smart"), and Emotional Security (e.g., "Would make me feel calmer if I were nervous"). The current research focuses on Help, Intimacy, and Reliable Alliance because these three dimensions are most directly relevant to coalitional mate retention (complete analyses available upon request).

# 2. Method

#### 2.1. Participants and procedure

We used data secured as part of a larger project (Pham et al., in press). We recruited from Amazon's Mechanical Turk (MTurk) 387 participants (176 women) in a committed, heterosexual relationship lasting at least 1 year. The mean participant age was 32.1 years (SD = 9.1) and the mean relationship length was 66.0 months (SD = 88.5). Participants reported on interactions with two heterosexual friends (one man and one woman), each of

whom they considered a good friend and had known for at least 1 year. The mean length of the friendship was 88.7 months (SD = 90.2) with the male friend and 76.6 months (SD = 89.6) with the female friend. We implemented MTurk filters recommended by Peer, Vosgerau, and Acquisti (2014): MTurk workers who could access this study had successfully completed at least 95% of at least 500 MTurk jobs.

#### 2.2. Materials

Participants answered each question twice: Once for their male friend, and again for their female friend. Participants reported length of their friendship (in months). Participants completed the McGill Friendship Questionnaire (see above; Mendelson & Aboud, 1999), in which they reported on a 9-point scale (0 = never, 8 = always) how often their friend fulfilled friendship roles (e.g., "Is someone I can tell secrets to", "Helps me when I need it"). Participants completed the 44-item Coalitional Mate Retention Inventory (Pham et al., in press), in which they reported on a 4-point scale (0 = never, 3 = often) (1) how often they requested their friend to perform each behavior during the past year, and (2) how often they sequent.

## 3. Results

Using participants' reports on the McGill Friendship Questionnaire, we computed friendship-quality variables from the mean of responses to items comprising each of three dimensions: Help (male friends:  $\alpha$  = .85; female friends:  $\alpha$  = .84), Intimacy (male friends and female friends:  $\alpha$  = .86), and Reliable Alliance (male friends:  $\alpha$  = .81, female friends:  $\alpha$  = .86). Using participants' reports on the Coalitional Mate Retention Inventory, we computed seven coalitional mate retention tactic variables from the mean of responses to items comprising each tactic: Manipulation (i.e., an ally deceives the partner into admitting or demonstrating an interest in infidelity). Praise (i.e., an ally says positive things to the partner and to others about the friend, thereby increasing the romantic partnership's desirability), Vigilance (i.e., an ally watches the partner's behaviors), Therapy (i.e., an ally strengthens the romantic partnership by repairing relationship problems and listening to relationship concerns), Gifts (i.e., an ally secures information about desired gifts for the partner), Monopolizing Time (i.e., an ally spends time with the partner), and Violence (i.e., an ally performs violence against potential rivals; see Pham et al., in press).

Tables 1 and 2 present zero-order correlations between scores on the friendship-quality dimensions and scores on the coalitional mate retention tactics by sex and for male friends and female friends, respectively. To test the hypotheses, we conducted two binomial tests (50% test proportion) for each of the four friendship contexts (Hypothesis 1: male–female, female–male, female– female; Hypothesis 2: male–male). The first binomial test assessed the proportion of positive correlations out of the 48 total correlations. The second binomial test assessed the proportion of statistically significant positive correlations out of the total number of statistically significant correlations.

Male–female friendship quality correlated positively with the deployment of coalitional mate retention: 41 of the 48 correlations were positive (85.4%; p < .01), and 19 of the 19 statistically significant correlations were positive (100%, p < .01). Female–male friendship quality correlated positively with the deployment of coalitional mate retention: 46 of the 48 correlations were positive (95.8%; p < .01), and 31 of the 31 statistically significant correlations were positive (100%, p < .01). Female–female friendship qual-

#### Table 1

Zero-order correlations between friendship quality (Help, Alliance, Intimacy) and coalitional mate retention (CMR) tactics involving male friends.

	α	Male participants			Female participants				
		Help	Alliance	Intimacy	Help	Alliance	Intimacy		
CMR request									
Gifts	.66	05	18	.04	.34	.12	.36**		
Therapy	.90	14	29**	08	.34**	.11	.37**		
Monopolize	.90	02	15	.11	.44**	.17	.30		
Vigilance	.87	16	27**	06	.24	.02	.27		
Praise	.86	.03	14	.10	.38**	.07	.33**		
Manipulation	.94	21°	35**	10	.21*	01	.23*		
Violence	.86	22**	36**	13	.23*	.03	.21**		
Total	.97	12	28**	01	.38**	.09	.36		
CMR performance									
Gifts	.71	.01	18	.02	.33**	.09	.32**		
Therapy	.86	.01	10	.08	.35	.10	.36**		
Monopolize	.88	02	09	.08	.34**	.16	.11		
Vigilance	.82	.04	03	.16	.32**	.00	.28**		
Praise	.82	.28**	.32**	.31**	.39**	.17	.28**		
Manipulation	.93	22**	36**	10	.21*	.00	.22*		
Violence	.86	20 <sup>*</sup>	32**	10	.21*	03	.19*		
Total	.95	01	13	.09	.41**	.10	.33**		

*Note:* "Request" refers to how often participants explicitly ask their friend for coalitional mate retention, and "performance" refers to how often participants believe their friends are performing coalitional mate retention.

\* *p* < .05. \*\* *p* < .01.

# Table 2

Zero-order correlations between friendship quality (Help, Alliance, Intimacy) and coalitional mate retention (CMR) tactics involving female friends.

	α	Male participants			Female participants					
		Help	Alliance	Intimacy	Help	Alliance	Intimacy			
CMR request										
Gifts	.39	.23**	.06	.19*	.24*	.04	.09			
Therapy	.87	.19*	03	.15	.24*	.02	.10			
Monopolize	.91	.22**	.08	.15	.24*	03	.06			
Vigilance	.83	.17*	02	.15	.26*	.04	.13			
Praise	.82	.22**	04	.13	.33**	.10	.15			
Manipulation	.93	.12	14	.05	.17	01	.03			
Violence	.82	.16	11	.07	.23*	.02	.10			
Total	.97	.21*	03	.14	.27**	.03	.11			
CMR performance										
Gifts	.50	.28**	.08	.19*	.30**	.07	.17			
Therapy	.81	.17*	.14	.18*	.37**	.15	.26			
Monopolize	.91	.04	.16	.10	.39**	.16	.22*			
Vigilance	.83	.21**	.18*	.25**	.39**	.14	.31**			
Praise	.80	.23**	.23**	.24**	.45**	.20	.34**			
Manipulation	.90	.09	09	.03	.26*	03	.14			
Violence	.55	.00	.10	.14	.40**	.25*	.43**			
Total	.96	.18*	.14	.19*	.43**	.16	.32**			

*Note:* "Request" refers to how often participants explicitly ask their friend for coalitional mate retention, and "performance" refers to how often participants believe their friends are performing coalitional mate retention.

ity correlated positively with the deployment of coalitional mate retention: 45 of the 48 correlations were positive (93.8%, p < .01), and 21 of the 21 statistically significant correlations were positive (100%, p < .01). Consistent with Hypothesis 1, deployment of coalitional mate retention was positively associated with the quality of friendships involving women: female–female friendships, male–female friendships, and female–male friendships.

Male–male friendship quality correlated negatively with the deployment of coalitional mate retention: 33 of the 48 correlations were negative (68.7%, p < .01), and 13 of the 16 statistically signif-

icant correlations were negative (81.2%, p < .01). Consistent with Hypothesis 2, deployment of coalitional mate retention was negatively associated with the quality of male–male friendships. The three statistically significant positive correlations involved coalitional mate retention associated with Praise: Men who reported greater friendship quality with their male friend (Help, Reliably Alliance, Intimacy) also reported receiving more Praise from him (e.g., "Said positive things about me to my partner's friends", "Said nice things about me when my partner and other people were around").

# 4. Discussion

The results of the current research support the hypotheses that deployment of coalitional mate retention is positively associated with the quality of friendships involving women (e.g., male–female friendships, female–male friendships, female–female friendships), but negatively associated with the quality of male–male friendships. The mere appearance of mate poaching may discourage the provisioning of coalitional mate retention between male friends because mate poaching is more costly for men than for women (e.g., homicide precipitated by male sexual jealousy: Daly et al., 1982).

An alternative explanation may be that men who are closer to their male friend spend more time with him, resulting in fewer opportunities for him to perform coalitional mate retention in their absence. Future research could investigate sex-differences in the interaction between friendship qualities, time spent with friends, and coalitional mate retention.

We found that women—but not men—who reported greater Intimacy with their opposite-sex friend also reported more frequent coalitional mate retention from that friend. Men and women may have different motives for maintaining an intimate oppositesex friendship. For example, men more than women may perceive an intimate opposite-sex friendship as a mate poaching opportunity, resulting in men's disinterest in performing coalitional mate retention.

We found that men who are closer to a same-sex friend are less likely to deploy coalitional mate retention for that friend. There was one exception, which we did not hypothesize: coalitional mate retention involving Praise. A function of close friendships is to defend allies from public derogation (Argyle & Henderson, 1984). The McGill Friendship Questionnaire included items such as "Would stay my friend if other people criticized me". Because the failure to praise one's ally (and, similarly, the failure to defend one's ally from public derogation) is perceived as a potent friendship betrayal (Shackelford & Buss, 1996), praising one's ally may be a function of friendships beyond coalitional mate retention (Argyle & Henderson, 1984).

Given the correlational design of the current research, we cannot determine whether friendship quality causes the deployment of coalitional mate retention, or whether the deployment of coalitional mate retention affects friendship quality. Future research might investigate these relationships experimentally by priming participants with thoughts of friendship betrayal (to manipulate friendship quality) and assessing changes in the deployment of coalitional mate retention.

Research guided by an evolutionary perspective has investigated how friendships helped solve sex-specific adaptive problems, including cooperative hunting, coalitional violence, alloparenting, and securing mates (Bleske-Rechek & Lighthall, 2010; Kuhle & Radtke, 2013: Lewis et al., 2011; Lewis et al., 2012). The current research adds to this literature by documenting that friends also provision coalitional mate retention to help solve the adaptive problems of partner infidelity.

<sup>\*</sup> p < .05. \*\* p < .01.

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# References

- Argyle, M., & Henderson, M. (1984). The rules of friendship. Journal of Social and Personal Relationships, 1, 211–237.
- Bleske-Rechek, A., & Lighthall, M. (2010). Attractiveness and rivalry in women's friendships with women. *Human Nature*, 21, 82–97.
- Buss, D. M. (1988). From vigilance to violence: Tactics of mate retention in American undergraduates. *Ethology and Sociobiology*, 291–317.
- Daly, M., Wilson, M., & Weghorst, S. J. (1982). Male sexual jealousy. Ethology and Sociobiology, 3, 11–27.
- Greif, G. (2008). Buddy system: Understanding male friendships. New York: Oxford University Press.
- Kuhle, B. X., & Radtke, S. (2013). Both both ways: The alloparenting hypothesis for sexual fluidity in women. Evolutionary Psychology, 11, 304–323.
- Lewis, D. M. G., Al-Shawaf, L., Conroy-Beam, D., Asao, K., & Buss, D. M. (2012). Friends with benefits II: Mating activation in opposite-sex friendships as a function of sociosexual orientation and relationship status. *Personality and Individual Differences*, 53, 622–628.
- Lewis, D. M. G., Conroy-Beam, D., Al-Shawaf, L., Raja, A., DeKay, T., & Buss, D. M. (2011). Friends with benefits: The evolved psychology of same- and oppositesex friendships. *Evolutionary Psychology*, 9, 543–563.

Mendelson, M. J., & Aboud, F. E. (1999). Measuring friendship quality in late adolescents and young adults: McGill friendship questionnaires. *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences Du Comportement*, 31, 130–132.

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- Mogilski, J. K., & Wade, T. J. (2013). Friendship as a relationship infiltration tactic during human mate poaching. Evolutionary Psychology, 11, 926–943.
- Morton, T. L. (1978). Intimacy and reciprocity of exchange: A comparison of spouses and strangers. *Journal of Personality and Social Psychology*, 36, 72–81.
- O'brien, R., Hunt, K., & Hart, G. (2005). 'It's caveman stuff, but that is to a certain extent how guys still operate': Men's accounts of masculinity and help seeking. *Social Science and Medicine*, 61, 503–516.
- Pham, M. N., Barbaro, N., & Shackelford, T. K. (in press). Development and initial validation of the coalitional mate retention inventory. *Evolutionary Psychological Science*.
- Peer, E., Vosgerau, J., & Acquisti, A. (2014). Reputation as a sufficient condition for data quality on Amazon Mechanical Turk. *Behavior Research Methods*, 46, 1023–1031.
- Schmitt, D. P., & Buss, D. M. (2001). Human mate poaching: Tactics and temptations for infiltrating existing mateships. *Journal of Personality and Social Psychology*, 80, 894–917.
- Sell, A., Tooby, J., & Cosmides, L. (2009). Formidability and the logic of human anger. Proceedings of the National Academy of Sciences of the United States of America, 106, 15073–15078.
- Shackelford, T. K., & Buss, D. M. (1996). Betrayal in mateships, friendships, and coalitions. Personality and Social Psychology Bulletin, 22, 1151–1164.