

Date received: _____

Date sent for review: _____

Cover Sheet for EXEMPT IRB ApplicationPrincipal Investigator Name: [REDACTED] _____Project Title: **Assessing Individual Differences in Relationships** _____

Remember that exempt refers to the IRB process requiring fewer reviewers. It does not mean the research does not need a review. [See [IRB webpage on Exempt and Expedited Reviews](#) for full description of category].

1. The nature of the study involves Exempt research categories:

- ☒ Simple survey procedure
☐ Interview procedure (face to face or telephone)
☐ Educational strategies or tests
☐ Observation of public behavior
☐ Review of existing data
☐ Other, please describe:

2. The research involves less than minimal risk, i.e. there is no risk for civil or criminal liability, employability, damage to subject's financial standing, or reputation.

☒ Yes ☐ No

3. The research involves a protected population, i.e. minors, pregnant women, fetuses, prisoners, mentally handicapped persons. *If YES, this research is not for exempt review.*

☐ Yes ☒ No

4. The research involves deception or may intentionally provide misleading information to participants. *If YES, this research may not be appropriate for exempt review.*

☐ Yes ☒ No

(For Office Use Only)

Date logged _____ Init. _____

IRB application number _____



INSTITUTIONAL REVIEW BOARD ON HUMAN PARTICIPANTS
Application for IRB Review and Approval Guidelines

General Instructions

Application must be typewritten, completed in its entirety, and saved as:

LastName_Firstinitial_Keyword_IRB_version#.pdf (e.g., Mai_J_Balance_IRB_v1.pdf).

This Application and supporting documents should be sent as one PDF file to irb@clarke.edu.

Complete applications will include the documents listed below. These documents should be scanned into a single PDF **in the order listed**.

- ☒ Exempt, expedited, or full review cover sheet
- ☒ This form with faculty signature if PI is a student
- ☒ Proposal abstract
- ☒ Appropriate CITI Training Certificate
- ☒ Informed consent forms (if required)

Note: An IRB number will be assigned when final approval is given. This IRB number must be added to the consent form.

- ☒ Research tool(s) (e.g., questionnaire, survey, interview questions, test questions)
- ☒ Recruitment materials (including but not limited to copies of script for face to face recruitment, a copy of recruitment e-mail, social media post, recruitment flyers/posters)
- ☐ Permission statement from research location(s) if research is to be conducted outside of Clarke University

- All required materials must initially be submitted to irb@clarke.edu.
- Incomplete applications will be returned un-reviewed.
- Revised Applications must be submitted as a complete Application and sent directly to the reviewer who reviewed the first version. When saved and submitted, please do so with a new version number (e.g., Mai_J_Balance_IRB_v2.pdf).
- Exempt and expedited applications may take up to four weeks to review per submission. Full IRB reviews may take longer.

NOTE: When completing this form, the text boxes in which to insert content do not display spell check or grammar check notifications (i.e., no red squiggly lines). Applicants may want to compose some answers in a separate MSWord file before pasting into the Application.

TIP: Tab from text box to text box or from check box to check box instead of using a mouse. Boxes can be checked using the space bar.

IRB Application

I. Project Title: Assessing Individual Differences in Relationships

Principal Investigator (PI) Information		
(Name) [REDACTED]	(Department) Health, Wellness, and Behavioral Sciences	
(E-mail) [REDACTED]	(Phone) [REDACTED]	(CITI Certificate #) [REDACTED]

Faculty Research Advisor Information		
(Name)	(Department)	
(E-mail)	(Phone)	(CITI Certificate #)

Additional Investigator(s) Information		
(Name) [REDACTED]	(Department) Health, Wellness, and Behavioral Sciences	
(E-mail) [REDACTED]	(Phone) N/A	(CITI Certificate #) [REDACTED]
(Name)	(Department)	
(E-mail)	(Phone)	(CITI Certificate #)
(Name)	(Department)	
(E-mail)	(Phone)	(CITI Certificate #)

**If more "Additional Investigators" are required, please include them in the Appendix

II. Is this project funded by an outside agency?

☐ Yes; Sponsor's name is

☒ No

III. If research is being conducted to meet course or graduation requirements, please check all of the following that apply:

- ☐ A major goal of the project is to practice skills related to conducting research (e.g., administering a previously created tool to learn data collection and analysis procedures).
- ☐ A major goal of the project is to apply previously researched principles to a specific population (are hand washing procedures being followed by clinic staff and what are the related infection rates at clinic X OR does reading skill improve when applying this previously studied technique to my students at school Y).

- ☐ A major goal is to conduct original research, but there may be limitations in the study (e.g., participant pool is too small to make generalizations, the need to use my colleagues as participants means that I will not be able to ask personal questions).
- ☐ None of these apply. Continue to Question IV

A. Explain any limitations to the research project that might relate to the statements above:

A convenience sample is being used. However, the sample in this research will be more diverse and more representative of the general population than Clarke University students (or college student samples in general; Buhrmester, Kwang, & Gosling, 2011).

IV. What are the anticipated start and end dates?

**** Recruitment for research cannot start until IRB approval has been obtained. Please allow four weeks for the IRB review process.**

Desired date to begin recruitment for the study	██████
Anticipated date for completion of data collection	██████
Anticipated date to submit Completion Form	██████
For Student Researchers only: Final Presentation (estimated date)	

**** Research is considered complete once data collection is completed. Once completed, researcher(s) must submit a Completion of an Approved Research Project Form to irb@clarke.edu.**

V. IRB must consider the research design in order to assess the risks and benefits of this study. This includes recruitment of participants, data collection, data analysis, and dissemination of the results. Please respond to the questions and statements below so that IRB can complete this evaluation.

A. **Rationale:** Using ordinary, non-specialized terms, provide background and rationale for the project.

During self-evaluation, people tend to use several sources of information as comparison standards. For instance, if people want to evaluate their relationship, they might think about their relationship compared to their friends' relationship (i.e., social comparison) or they might think about their current relationship over time or compared to previous relationships (i.e., temporal comparison). Critically, social and temporal comparisons are often self-enhancing in nature, with people engaging in comparisons that engender more favorable self-evaluations. For instance, people generally evaluate their abilities, traits and behaviors as better than average (the above-average effect), predict a more positive future for themselves than others (comparative optimism) and perceive their present self more positively than their past self. Importantly, these comparison processes can have implications for psychological well-being and behavior. For example, perceiving one's relationship as better than their friends' relationships may result in greater relationship satisfaction. Conversely, perceiving one's relationship as worse off than their friends' (or their past relationships) may

result in lower relationship satisfaction. This research will assess whether people are in fact self-enhancing when evaluating their relationships and the association between those evaluations and relationship outcomes (e.g., jealousy, satisfaction). Further, it will test whether these relationships differ for people with greater dispositional tendencies to compare with others and compare with the past.

- B. Research Questions:** List all research questions that will be asked. Questions must be approved by a research advisor if the PI is a student.

Do people self-enhance their relationship when comparing to others?

Do people self-enhance their relationship when comparing to the past?

Are comparisons with others and the past associated with relationship outcomes, such as jealousy and satisfaction?

Do comparisons depend on individual differences, such as social comparison orientation?

C. Participants:

1. Participants (Please estimate maximum numbers)

Adult volunteers (patients are not to be included in this number)	100
Students within a classroom setting	
Minors (under 18)	
Patients as experimental participants	
Patients as controls	
Persons whose first language is not English	
Pregnant women or fetuses	
Adults with cognitive disabilities	
Prisoners, incarcerated	
Other (please specify):	
Total anticipated participants (maximum)	100

2. Will participants be able to participate in a language in which they are fluent? (Check all that apply) It is not acceptable to include participants who are not able to fully understand the consent materials or the tool being used.

- ☒ Yes, all participants will participate in a language in which they are fluent.
- ☐ Yes, translations will be offered. Provide evidence that an appropriate translator is being used to create forms and/or to conduct interviews.
- ☐ No, participants are not used in study.

3. What inclusion and exclusion criteria will be used to determine eligibility to participate?

There are two categories of eligibility criteria for this study. First, participants must currently be in a romantic relationship for at least 6 months.

The second eligibility category relates to the issue of a drastic increase in the number of robots providing invalid data on MTurk (see <https://www.maxhuibai.com/blog/evidence-that-responses-from-repeating-gps-are-random>). A number of safeguards will be implemented to filter participants and prevent robots from enrolling in the study that has been used in past research to successfully minimize the frequency of bots (Rose & Aspiras, 2020; Aspiras & Rose, in preparation; Murray & Geers, unpublished data). The location will be restricted such that IP addresses that MTurk has identified as problematic (e.g., high rates of robots) will be unable to view the study on MTurk, and the study will be made available only to workers with an IP address in the United States. There will also be a Captcha checkbox that participants must check to be eligible to enroll in the study. In addition, several questions will be included throughout the initial survey to further identify invalid data, which are included in the document with the survey materials. These items will be examined together to determine whether data is invalid, and "participants" who provide invalid data will be removed from the dataset.

4. If using a specific sampling method, indicate which sampling method(s) will be used.

- | | |
|----------------------------------------------------------|---------------------------------------------|
| <input type="checkbox"/> Simple Random Sampling | <input type="checkbox"/> Volunteer Sampling |
| <input type="checkbox"/> Stratified Sampling | <input type="checkbox"/> Network Sampling |
| <input type="checkbox"/> Cluster Sampling | <input type="checkbox"/> Snowball Sampling |
| <input type="checkbox"/> Systematic Sampling | <input type="checkbox"/> Purposive Sampling |
| <input type="checkbox"/> Multistage Sampling | <input type="checkbox"/> Quota Sampling |
| <input checked="" type="checkbox"/> Convenience Sampling | <input type="checkbox"/> Other: |

D. Recruitment

1. Recruitment Location (Check all that apply)

- ☐ Clarke University
- ☐ Public areas not located at Clarke. Please list specific areas:
- ☒ Social media (e.g., Facebook, Instagram, Twitter, etc.). Please list sites & groups: **This is not social media, but the study will be posted online through Amazon's Mechanical Turk (MTurk), an online marketplace in which workers are paid to complete simple surveys and tasks.**

**** Applicant must secure and include documentation of approval to recruit from non-public virtual communities or interest groups (e.g., moderator of a closed Facebook group).**

- ☐ Other location(s) (e.g., businesses, other institutions, agencies, etc.). Please list:

**** Applicant must secure and include documentation of approval to recruit at these location(s). Please include copies of permissions in the Appendix.**

2. Will these other locations require this project to be approved by their own IRB?

- ☐ Yes, the following other locations will require this project to be approved by their own IRB:

**** Note:** If Applicant is able, please include the project's IRB approval notification(s) from these other location(s) in this application.

☐ No, these other locations will rely on the Clarke University IRB approval process.

3. How will potential participants be contacted in order to recruit them? Please include a copy of the e-mail, script, flyer, or advertisement to be used to recruit potential participants. Refer to IRB website for policy on incentives.

No participants will be contacted by the researchers. The study will be posted online through MTurk. The posting will contain a brief description of the study, which contains the relationship eligibility criteria, study purpose and procedure, expected completion time, and payment amount. Participants then determine whether they'd like to (and are eligible to) participate or not after reading the description.

4. Is informed consent required? (Research using previously recorded data may not require informed consent.)

☒ Yes

☐ No

5. How will consent be obtained? Check all that apply. (Include with the application)

☐ Informed Consent Form with Cover Letter

☐ Parent/Guardian Informed Consent Form with Cover Letter

☐ Parental Notification Letter (for Action Research only)

☐ Assent Form

☐ Verbal Consent (with Script)

☒ Participation Consent (for Web and Phone Surveys)

6. If it is not possible to obtain written consent, describe how an understandable explanation will be given to the participants and consent will be acknowledged.

Before beginning the survey, participants will be provided the electronic informed consent form. Where participants traditionally sign their name, the form will state that by clicking to continue in order to begin the study, they are consenting to participate.

E. Data Collection and Analysis

1. Data Collection and Analysis Location (Check all that apply)

☐ Clarke University

☐ Public areas not located at Clarke. Please list specific areas:

☒ Social media (e.g., Facebook, Instagram, Twitter, etc.). Please list: **MTurk**

** Applicant must secure and include documentation of approval to collect data from non-public virtual communities or interest groups (e.g., moderator of a closed Facebook group).

☐ Other location(s) (e.g., businesses, other institutions, agencies, etc.) Please list:

** Applicant must secure and include documentation of approval to collect data at these location(s). Please include copies of permissions in the Appendix.

2. If applicable, will these other locations require their IRB to approve of the project?

☐ Yes, the other location's IRB approval is attached.

☐ Yes, but the other location has yet to provide notification of IRB approval.

☐ No, the other location will be using the Clarke University IRB approval.

3. Indicate which of the collection tools will be used during research and attach all relevant documents. (Check all that apply)

☒ Survey, questionnaire(s) created by researcher: Attach tool(s)

☐ Survey, questionnaire(s) routinely collected by the site: Attach tool(s)

☒ Survey, questionnaire(s) created by other researcher: Attach tool(s) and permission or documentation that the survey is in the public domain

☐ Interview: phone/in-person: Attach interview tool(s) or questions being used

☐ Focus group: Attach questions being used

☐ Analysis of student test scores or routine assignments: Attach sample test(s) and assignment(s)

☐ Analysis of existing public records or documents

☐ Analysis of medical or other private records

☐ Direct observation of people in school, workplace, or other non-public location: Attach tool(s) if relevant

☐ Direct observation of people in public places: Attach tool(s) if relevant

☐ Collection of physical specimens (e.g., blood, saliva, etc.)

☐ Collection of data or physical specimen through non-invasive means (e.g., weight)

☐ Other(s) (please specify):

4. How will participants complete the study (e.g., email, phone, mail, face to face)? Include the web address, email, script, survey, or other relevant information.

Participants will complete the study online through MTurk using Qualtrics, an online survey platform. (Information about Qualtrics can be found at Qualtrics.com). After we create the Qualtrics survey, we will then post it in MTurk, and it will appear in the MTurk homepage of all surveys and tasks. There is no script because this is being completed online. The survey instructions and the survey itself are included with this application.

5. How often will participants be expected to meet with researcher(s) and for how long (e.g., two one-hour meetings, two weeks apart; 10-minute survey)?

One 20-minute survey

6. Explain in detail the total experience of participants during the research. Be sure to include scripts, forms, surveys, and other documents related to the study.

The entire study will take place on MTurk. A posting of the study will be available to participants. Those who choose to participate will first be provided an electronic consent form, and will then complete the survey online. After completing the study, participants will be taken to a pay with information for receiving payment. There they will receive a payment code that is entered through MTurk. They will enter the payment code received into MTurk, and payments will then be made through the MTurk system. Researchers will not directly pay participants. Transactions are completed through the MTurk payment system, who keeps all information about both parties confidential.

Participants are being paid using leftover money from a research grant the PI was awarded by her department at her prior institution. The research project that this grant funded was completed in its entirety in [REDACTED] and the funds belong to the PI to use at her discretion on future research projects.

7. How will the accuracy of the data collection be ensured (e.g., pilot testing, interrater reliability, single or double blind)? IRB may request raw data in order to assess accuracy.

We will be using validated measures and using a more representative and diverse sample than Clarke University students (Buhrmester, Kwang, & Gosling, 2011). Additionally, multiple criteria are being implemented to screen for bots in MTurk (described with the eligibility criteria), which greatly reduces the likelihood of invalid data.

8. Will data be anonymous or confidential? *Anonymous data are data collected with no identifiers available to the researcher. Confidential data include one or more identifiers which is available to the researcher.*

- ☒ Anonymous
☐ Confidential

9. How will data be *collected* in order to protect the confidentiality and privacy of participants?

No names, email addresses, or identifying information will be collected in the survey. Researchers will not directly interact with participants, as the survey is being administered through the MTurk system, which maintains confidentiality by not releasing any identifying information about the participants or researchers to either party. Only the IRB-approved researchers will have access the MTurk account and the survey responses.

10. How will data be *stored* in order to protect confidentiality and privacy of participants (e.g., locked file in a particular room, password protected file on a specific computer)? Be specific.

Data will be stored in a password protected computer--i.e. desktop computer in [REDACTED] and the two researchers' personal laptops--that only the IRB-approved researchers can access. The original dataset will also be kept in its original location in the password provided Qualtrics account that only the faculty advisor on this project can access.

11. How and when will data be destroyed? The federal government requires data to be retained for at least three years.

Data will be retained for at least 3 years per federal government guidelines. There is no current plan to delete the data entirely, as keeping the data allows for additional analyses and to double check analyses before presenting or publishing the data. Only the approved researchers will have access to the data. However, once initial analyses are conducted, data files will be removed from laptops and only stored in the password protected Qualtrics account, which only the faculty advisor on this project can access.

If and when the data is destroyed entirely, this will be done by deleting the survey from Qualtrics (which deletes all data permanently) and will be deleted from the password protected computers.

12. Describe the specific quantitative or qualitative analysis that will be used to answer the research questions.

One sample t-tests will be used to assess whether participants are self-enhancing in their comparisons to other relationships and to their relationship in the past. Correlations will be conducted to assess the relationship between comparisons and relationship jealousy and satisfaction. Factorial ANOVAs and/or multiple regressions will be used to test the moderating effect of comparison orientation on the relationship between comparisons and relationship jealousy and satisfaction.

- VI. The researcher is responsible for considering any potential risk that a research participant might experience. Risk to participants may be tolerable in research as long as it is necessary to gather the information and as long as the researcher has provided appropriate ways to minimize the risk. Carefully estimate risk level for participants of this study. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.

A. Psychological stress greater than daily life (e.g., potential to perceive topic or materials as threatening, offensive, or degrading)	Level of risk <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Minimal risk <input type="checkbox"/> Substantial risk
Describe circumstances that could lead to risk if applicable. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.	Thinking about a relationship may produce psychological discomfort if the relationship is characterized by negative relationship patterns. Participants will be told they have the right to end the study at any time. Participant complaints will be handled by the PI, who will report any

	complaints to the IRB and will follow the appropriate federal guidelines for dealing with the complaint.
B. Social or economic stress greater than daily life (e.g., perception of experience as potentially damaging to financial standing, employability, job retention, or reputation)	Level of risk <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Minimal risk <input type="checkbox"/> Substantial risk
Describe circumstances that could lead to risk if applicable. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.	
C. Physical or medical risk greater than daily life (e.g., potential for physical injury or negative impact on health)	Level of risk <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Minimal risk <input type="checkbox"/> Substantial risk
Describe circumstances that could lead to risk if applicable. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.	
D. Unintended disclosure of confidential information (e.g., school or medical records)	Level of risk <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Minimal risk <input type="checkbox"/> Substantial risk
Describe circumstances that could lead to risk if applicable. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.	
E. Perceived coercion to participate because of existing or potential relationship between researcher and participant (e.g., friend-friend, teacher-student, employer-employee)	Level of risk <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Minimal risk <input type="checkbox"/> Substantial risk
Describe circumstances that could lead to risk if applicable. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.	
F. Confusion resulting from experimental deception (e.g., use of placebo)	Level of risk <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Minimal risk <input type="checkbox"/> Substantial risk
Describe circumstances that could lead to risk if applicable. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.	

G. List any other risk that may apply:	Level of risk <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Minimal risk <input type="checkbox"/> Substantial risk
Describe circumstances that could lead to risk if applicable. Explain plans to minimize the risk to participant(s) and how participant complaints will be handled.	

VII. Conflicts of Interest (COI)

A. Financial COI: Do any of the researcher(s) (or their spouse(s), domestic partner(s), significant other(s), and/or dependent children) have financial interests related to this study?

☐ Yes

☒ No

1. If Yes, please disclose this financial COI:
2. If Yes, please explain how relevant researcher(s) will manage the influence of this financial COI to avoid any actual or seeming compromised judgement related to the collection, analysis or reporting of this research project. Note: Any COI should be disclosed in publications or presentations.

B. Other COI: Do any of the researcher(s) (or their spouse(s), domestic partner(s), significant other(s), and/or dependent children) have any other personal considerations that may compromise—or have the appearance of compromising—an investigator's professional judgment in conducting or reporting research for this project?

☐ Yes

☒ No


1. If Yes, please disclose this other COI:
2. If Yes, please explain how relevant researcher(s) will manage the influence of this personal COI to avoid any actual or seeming compromised judgement related to the collection, analysis or reporting of this research project. Note: Any COI should be disclosed in publications or presentations.

VIII. Describe the potential benefits of this research to individual participants or to society.

Participants will receive a payment of \$1.00 for participating.

IX. Assurance Statements

I understand and agree to follow all of Clarke University's IRB policies and requirements.

 _____
Date Principal Investigator's Signature

If the PI is a student, then the Faculty Advisor must agree to the following:

I reviewed this application and approve of the protocols. I worked with this student to ensure that all ethical and procedural concerns have been addressed. I support this research project and attest to the ability of the researcher to conduct this study.

Date Faculty Advisor's Signature (if applicable)

If the Student PI is unable to obtain a Faculty signature (e.g., Faculty Advisor is out of town), then student must CC the faculty member when submitting the Application and any revisions. The Faculty Advisor must then "Reply All" confirming approval before the Application or Revision will be considered for review or approval. This alternative signature process is only for exceptional circumstances. Please indicate why this alternative process was necessary.

During self-evaluation, people tend to use several sources of information as comparison standards. For instance, if people want to evaluate their relationship, they might think about their relationship compared to their friends' relationship (i.e., social comparison) or they might think about their current relationship over time (i.e., temporal comparison). Critically, social and temporal comparisons are often self-enhancing in nature, with people engaging in comparisons that engender more favorable self-evaluations. For instance, people generally evaluate their abilities, traits and behaviors as better than average (the above-average effect), predict a more positive future for themselves than others (comparative optimism) and perceive their present self more positively than their past self.

Importantly, these comparison processes can have implications for psychological well-being and behavior. For example, perceiving one's relationship as better than their friends' relationships may result in greater relationship satisfaction. Conversely, perceiving one's relationship as worse off than their friends' (or their past relationships) may result in lower relationship satisfaction. This research will assess whether people are in fact self-enhancing when evaluating their relationships and the association between those evaluations and relationship outcomes (e.g., jealousy, satisfaction). Further, it will test whether these relationships differ for people with greater dispositional tendencies to compare with others and compare with the past.

In this research 100 adults who are currently in a relationship will be recruited through Amazon's Mechanical Turk. Participants will complete a survey with the following measures: items in which they compare their current relationship to the average relationship (social comparison), to their relationship in the past (temporal comparison), and to previous relationships (temporal); measures of relationship jealousy and satisfaction; and measure of

social comparison orientation and temporal comparison orientation. Participants will also provide basic demographic information. They will be paid \$1.00 for completion of the survey.

One sample t-tests will be used to assess whether participants are self-enhancing in their comparisons to other relationships and to their relationship in the past. Correlations will be conducted to assess the relationship between comparisons and relationship jealousy and satisfaction. Factorial ANOVAs and/or multiple regressions will be used to test the moderating effect of comparison orientation on the relationship between comparisons and relationship jealousy and satisfaction. Results will be used to inform future research on relationships and comparisons.



Completion Date

Expiration Date

Record ID

This is to certify that:



completed the following CITI Program course:

Social & Behavioral Research - Basic/Refresher (Curriculum Group)

Social & Behavioral Research (Course Learner Group)

1 - Basic Course (Stage)

Not valid for renewal of certification through CME. Do not use for TransCelerate mutual recognition (see Completion Report).

Under requirements set by:

Clarke University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/





Completion Date

Expiration Date

Record ID



This is to certify that:



Has completed the following CITI Program course:

Social & Behavioral Research - Basic/Refresher (Curriculum Group)

Social & Behavioral Research (Course Learner Group)

1 - Basic Course (Stage)



Under requirements set by:

Clarke University

Verify at www.citiprogram.org/verify/



Assessing Individual Differences in Relationships

Electronic Informed Consent

KEY INFORMATION

You are being asked to consent to participate in an online research study. The purpose of this study is to examine individual differences in relationships. Participation is voluntary. There is no penalty if you decide not to participate or withdraw from the study, and your relationship with [REDACTED], the Psychology program, the Health, Wellness, and Behavioral Sciences Department, and Clarke University will not be affected by this decision. The estimated time of participation is 20 minutes. You will be expected to answer questions about your current relationship. Potential benefits for participating include a payment of \$1.00. Potential risks of participating include psychological discomfort while answering questions about relationships.

QUALIFICATIONS TO PARTICIPATE

You are being asked to participate because you are over the age of 18 years old. **Unfortunately, there are some reasons why you may not be able to participate. To be eligible to participate, you must currently be in a romantic relationship and have been in your current relationship for at least 6 months.**

PROCEDURES

If you agree to participate in this study, you will be asked to you will be asked to complete a 20-minute survey online. The survey will contain demographic questions, such as age and gender, questions about your relationship, and questions about your personality.

PARTICIPANT CONFIDENTIALITY

Your responses to this survey will be automatically anonymous, and so your name will not be connected to any publication or presentation that uses the research findings from this study.

DISCLAIMER

The risk of participating is minimal. If you experience any distress during participation, the researchers and Clarke University are not responsible for any medical or mental health expenses.

REFUSAL TO PROVIDE CONSENT

You are not required to participate in this study. Refusal to participate in this study will not affect your rights to services you currently are receiving or may receive from the Psychology program, the Health, Wellness, and Behavioral Sciences Department, or Clarke University.

CANCELLING THIS CONSENT

At any time during the study, you have the right to withdraw your consent to participate. To withdraw from the study, you simply need to stop taking the survey and close your browser. Any information that you have already submitted will remain part of the study because of the anonymizing collection method.

PARTICIPANT CERTIFICATION:

I have read this Informed Consent form. I have been given the opportunity to ask questions regarding the study, and I have received answers to any questions I had regarding the study. I understand that if I have any additional questions about the study or my rights as a research participant, I may contact [REDACTED].

By checking the box below and clicking continue to the next screen, I agree to be a participant in this study. I acknowledge that I am aware of what this study involves, that I am at least 18 years old, and that I can obtain a copy of this Informed Consent.

☐ I agree to participate

Filter Question Before Survey:

Are you currently in a romantic relationship?

- 1) Yes
- 2) No
- 3) Prefer not to answer

Have you been in your current relationship for at least 6 months?

1. Yes. Please specify how many months: ____
2. No

[If the potential participant responds No to the first or second question or doesn't answer, they will be told they're ineligible to participate and automatically sent to the end of the survey]

Initial Instructions: The following survey contains questions about yourself and your most recent relationship. Please answer all questions honestly and to the best of your ability.

Demographic Questionnaire

1. What is your current age? _____

2. What is your gender identity?

- a. Woman
- b. Man
- c. Non-binary
- d. Prefer not to say
- e. _____

3. Do you identify as transgender?

1. Yes
2. No
3. Prefer not to say

2. What is your partner's gender identity?

- f. Woman
- g. Man
- h. Non-binary
- i. Prefer not to say
- j. _____

3. Does your partner identify as transgender?

4. Yes
5. No
6. Prefer not to say

4. Please choose a description that best fits how you think about yourself:

- a. Lesbian or gay

- b. Bisexual
- c. Heterosexual/Straight
- d. _____

5. Please choose the description that best fits your current relationship:

- a) I am in a relationship with someone of the opposite sex or gender
- b) I am in a relationship with someone of the same sex or gender
- c) _____

6. Are you and your partner married?

- 1. Yes
- 2. No

7. Which category best describes you? Please select all that apply.

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaskan Native
- ☐ Chinese
- ☐ Japanese
- ☐ Filipino
- ☐ Korean
- ☐ Asian Indian
- ☐ Vietnamese
- ☐ Other Asian. Please specify: _____
- ☐ Native Hawaiian
- ☐ Samoan
- ☐ Chamorro
- ☐ Other Pacific Islander. Please specify: _____

8. What is the highest grade of school you have completed, or the highest degree you have received?

- ☐ None
- ☐ 1st-4th grade
- ☐ 5th-6th grade
- ☐ 7th-8th grade
- ☐ 9th grade
- ☐ 10th grade
- ☐ 11th grade
- ☐ High school graduate (or equivalent)
- ☐ Some college
- ☐ Associate's degree (occupational degree)
- ☐ Associate's degree (academic degree)
- ☐ Bachelor's degree (BA, BS, AB, etc.)
- ☐ Master's degree (MA, MS, MENG, MSW, etc.)
- ☐ Professional school degree (MD, DDC, JD, etc.)
- ☐ Doctorate degree (PhD, EdD, etc.)

9. What is your annual household income? _____

10. Think of the ladder as representing where people stand in society. Some people are better off – they have more money, more education, and better jobs. Other people are worse off – they have less money, less education, and worse jobs. The higher up on the ladder you are, the closer you are to the people at the top and the lower you are, the closer you are to the people at the bottom.

Think about **yourself and your family**. Please use an 'X' to indicate on which rung of the ladder you would place yourself and your family.



Relationship Assessment Scale

Please mark the letter for each item which best answers that item for you.

1. How well does/did your partner meet your needs?

1 2 3 4 5

Poorly Average Extremely Well

2. In general, how satisfied are/were you with your relationship?

1 2 3 4 5

Unsatisfied Average Extremely Satisfied

3. How good is/was your relationship compared to most?

1 2 3 4 5

Poor Average Excellent

4. How often do/did you wish you hadn't gotten into this relationship?

1 2 3 4 5

Never Average Very Often

5. To what extent has/had your relationship met your original expectations?

1 2 3 4 5

Hardly at all Average Completely

6. How much do/did you love your partner?

1 2 4 4 5

Not much Average Very much

7. How many problems are/were there in your relationship?

1 2 3 4 5

Very few Average Very many

Multidimensional Jealousy Scale

Questionnaire Instructions: Please think of a person with whom you currently have a romantic relationship. This person is referred to as X in this questionnaire. Please rate your response to the following questions by circling the appropriate number beside each item.

How often do you have the following thoughts about X? Using the following scale and write the number for your response in the blank next to the question.

<i>All the time</i>						<i>Never</i>
1	2	3	4	5	6	7

1. _____ I suspect that X is secretly seeing someone of the opposite sex.
2. _____ I am worried that some member of the opposite sex may be chasing after X.
3. _____ I suspect that X may be attracted to someone else.
4. _____ I suspect that X may be physically intimate with another member of the opposite sex behind my back.
5. _____ I think that some members of the opposite sex may be romantically interested in X.
6. _____ I am worried that someone of the opposite sex is trying to seduce X.
7. _____ I think that X is secretly developing an intimate relationship with someone of the opposite sex.
8. _____ I suspect that X is crazy about members of the opposite sex.

How would you emotionally react to the following situations? Using the following scale and write the number for your response in the blank next to the question.

<i>Very pleased</i>						<i>Very upset</i>
1	2	3	4	5	6	7

1. _____ X comments to you on how great looking a particular member of the opposite sex is.
2. _____ X shows a great deal of interest or excitement in talking to someone of the opposite sex.
3. _____ X smiles in a very friendly manner to someone of the opposite sex.
4. _____ A member of the opposite sex is trying to get close to X all the time.
5. _____ X is flirting with someone of the opposite sex.
6. _____ Someone of the opposite sex is dating X.
7. _____ X hugs and kisses someone of the opposite sex.
8. _____ X works very closely with a member of the opposite sex (in school or office).

How often do you engage in the following behaviors? Using the following scale and write the number for your response in the blank next to the question.

<i>Never</i>						<i>All the time</i>
1	2	3	4	5	6	7

1. _____ I look through X's drawers, handbag, or pockets.
2. _____ I call X unexpectedly, just to see if s/he is there.
3. _____ I question X about previous or present romantic relationships.

4. _____ I say something nasty about someone of the opposite sex if X shows an interest in that person.
5. _____ I question X about his/her telephone calls.
6. _____ I question X about his/her whereabouts.
7. _____ I join in whenever I see X talking to a member of the opposite sex.
8. _____ I pay X a surprise visit just to see who is with him/her.

Relationship Emotional Experiences

[In line with research by Attridge (2013), this measure is used because it includes a single self-reported item for jealousy. This measure will also allow us to further assess satisfaction through the level of positive versus negative emotions regarding the relationship]

Using the following scale, please indicate how frequently in the past week you felt each emotion concerning your partner and/or relationship.

<i>Never</i>						<i>Almost always</i>
1	2	3	4	5	6	7

1. ____ Angry
2. ____ Excited
3. ____ Content
4. ____ Fearful
5. ____ Frustrated
6. ____ Jealous
7. ____ Joyful
8. ____ Happy
9. ____ Lonely
10. ____ Needed
11. ____ Passionate
12. ____ Sad

Comparison Measures

1. Think about the average romantic relationship. Overall, how does your current relationship compare to most other romantic relationships?

1	2	3	4	5	6	7
<i>Much worse</i>			<i>As good as</i>			<i>Much better</i>

2. How does your current relationship compare to your friends' romantic relationships?

1	2	3	4	5	6	7
<i>Much worse</i>			<i>As good as</i>			<i>Much better</i>

3. Think about how your current relationship has changed over time. How does your relationship now compare to your relationship in the past?

1	2	3	4	5	6	7
<i>Much worse</i>			<i>As good as</i>			<i>Much better</i>

4. Think about your current relationship compared to your past relationship(s). Overall, how does your relationship now compare to your previous relationship(s)?

1	2	3	4	5	6	7
<i>Much worse</i>			<i>As good as</i>			<i>Much better</i>

Tendencies for Temporal Comparison Scale

Please use the following scale to rate your agreement to each statement.

1	2	3	4	5
Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

1. I often compare my present self to my past self with respect to what I have accomplished.
2. If I want to learn more about something, I rely on my past experiences.
3. I always pay a lot of attention to how I do things now compared with how I used to do things.
4. I often compare how my loved ones (romantic partner, family members, etc.) are doing currently with how they have done in the past.
5. When deciding what to do, I find it helpful to remember what I have done in similar situations in the past.
6. I am not the type of person who often compares my present self to my past self. *
7. If I want to find out how well I have done something, I compare my recent performance with my past performance.
8. When faced with a problem, I often try to think about how I would have handled it in the past.

9. I often like to think about how my opinions and experiences have changed over time.
10. I never consider my current situation in life relative to my past situations in life. *
11. I often compare how I am doing socially (e.g., social skills, popularity) with how I did socially when I was younger.

Social Comparison Orientation – Short Form

Most people compare themselves from time to time with others. For example, they may compare the way they feel, their opinions, their abilities, and/or their situation with those of other people. There is nothing particularly 'good' or 'bad' about this type of comparison, and some people do it more than others. We would like to find out how often you compare yourself with other people. To do that we would like to ask you to indicate how much you agree with each statement below using the following scale:

1	2	3	4	5
Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

1. I often compare myself with others with respect to what I have accomplished in life
2. If I want to learn more about something, I try to find out what others think about it
3. I always pay a lot of attention to how I do things compared with how others do things
4. I often compare how my loved ones (boy or girlfriend, family members, etc.) are doing with how others are doing
5. I always like to know what others in a similar situation would do
6. I am not the type of person who compares often with others
7. If I want to find out how well I have done something, I compare what I have done with how others have done
8. I often try to find out what others think who face similar problems as I face
9. I often like to talk with others about mutual opinions and experiences
10. I never consider my situation in life relative to that of other people
11. I often compare how I am doing socially (e.g., social skills, popularity) with other people

Checks for Invalid Data

1. How many words are in the sentence?
 - a. 3
 - b. 7
 - c. 9
 - d. 4

 2. Select “6” as your response option for this question.
 - a. 1
 - b. 3
 - c. 4
 - d. 6

 3. Please briefly describe in a few sentences what you did in this study.
-

Final message about payment

Thank you for completing the survey.

On the next screen you will be provided a unique respondent ID that you must enter into MTurk to receive payment.

[new screen]

Here is your Respondent ID: [randomly generated through Qualtrics]

Please paste this exact value into MTurk in order to receive payment. You will receive payment within 48 hours.

*******After you've copied your ID, please click continue to submit your survey responses. If you don't click continue, your responses will not be submitted.**

Jealousy and Relationship Closeness: Exploring the Good (Reactive) and Bad (Suspicious) Sides of Romantic Jealousy

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Mark Attridge¹

Abstract

This study confirmed a hypothesis from the Emotion-in-Relationships conceptual model, which predicts that greater interdependence between relationship partners—or closeness—creates the potential for jealousy. The study also sought to better define the positive side of romantic jealousy in addition to its more negative attributes. College students in premarital relationships ($N = 229$) completed a questionnaire, including 27 different measures and the Multidimensional Jealousy Scale. Select data were obtained from 122 cases at 3-month follow-up. Each jealousy scale was tested for associations with demographic (age, sex, and race), person (life satisfaction, loneliness, romantic attachment styles, love styles, and romantic beliefs), and relationship (affective, closeness, and social exchange theory) constructs. Results clearly distinguished emotional/reactive jealousy as mostly “good” and cognitive/suspicious jealousy as “bad.” Behavioral jealousy was associated with few measures. Implications are discussed for the interdependence model of relationships and the transactional model of jealousy.

Keywords

closeness, emotion, jealousy, love, relationship

A common thread among most definitions of jealousy is that it is an emotional response to the real or imagined threat of losing something of value from a romantic relationship (Salovey & Rodin, 1985; White & Mullen, 1989). Jealousy is commonly experienced at some point in most romances (Harris, 2009). It is a complex emotion that is considered to have mainly negative qualities—even to be a personal deficiency when at its most extreme expression. According to Berscheid’s (1983) “Emotion-in-Relationships” conceptual model, feeling jealous is a natural and entirely expected result of a situation in which a close relationship is threatened by a partner’s potential or actual involvement with someone outside of the relationship. From this perspective, jealousy need not be viewed so negatively when it is as a justifiable emotional response to potentially losing a valued relationship.

Jealousy and Relationship Closeness

To understand why this prediction makes sense, we must first understand relationship closeness. Some scholars consider relationship closeness to be equivalent to the degree of interdependence between partners in a relationship (Kelley et al., 1983). The extent to which one person’s behavior is likely to produce changes in the other person’s thoughts, feelings, and behaviors marks the degree to which the person

is dependent on the other. The level of change in the other signifies the degree of interdependence, or mutual influence, between the two individuals in a relationship. This definition of closeness includes four different characterizations of the relationship, including the strength, frequency, diversity, and duration of influence within the relationship (Berscheid, Snyder, & Omoto, 2004). The first dimension of closeness is the strength of influence within the relationship. This is evident in how powerfully one partner influences, either directly or indirectly, the other partner’s thoughts, feelings, and behaviors. Frequency of closeness corresponds to the idea that partners have more influence on each other the more time that they spend interacting with each other. The diversity aspect of closeness refers to the range of different life domains in which one partner influences the decisions and behaviors of the other partner. The last dimension of closeness—duration or relationship longevity—is based on the idea that the longer that two people are interdependent, the closer they will be.

¹Attridge Consulting, Inc., Minneapolis, MN, USA

Corresponding Author:

Mark Attridge, Attridge Consulting, Inc., 1129 Cedar Lake Road S.,
Minneapolis, MN 55405, USA
Email: mark@attridgeconsulting.com

The interdependence model of relationship closeness forms the conceptual basis for predicting when one is most likely to be jealous. In this view, one is unlikely to experience jealousy when the exclusivity of an *unimportant* relationship is threatened, but rather to become appropriately jealous when a highly valued and close relationship is questioned (Berscheid & Fei, 1977). This dynamic is described more specifically in the “Emotion-in-Relationships” model of emotional functioning processes in close relationships (Berscheid, 1983, 1991). This model suggests that emotion in relationships results from the disruption of interpersonal cognitive scripts, that is, instances in which behavioral interactions between relationship partners differ from an expected pattern. This disruption creates basic autonomic nervous system arousal, and a variety of emotional experiences is possible. Being in a close relationship that has been influenced by a history of shared interdependent experiences between the partners thus makes one more likely to become aroused and to experience jealousy when the rewarding patterns of these shared activities become disrupted (or could be disrupted) by a rival to the relationship.

Jealousy As Bad

Much of the literature on jealousy has not focused on the relationship closeness perspective and has instead cast jealousy in a primarily negative light when considering how it is defined, how it is conceptualized, and how it is associated with other individual difference and relationship constructs.

Definitions of Jealousy As Bad

According to Barelds and Dijkstra (2006), “Jealousy has a negative connotation in Western culture and is often looked upon as a socially undesirable emotion” (p. 184). Most empirical studies also have found that lay people tend to define jealousy in mostly negative terms. For example, using a prototype analysis, Sharpsteen (1993) found that when individuals were asked to identify features of jealousy, virtually all of the features were negative (e.g., hurt, threatened, bad thoughts about other man/woman).

Conceptual Approaches to Jealousy As Bad

Most conceptual approaches to jealousy also emphasize its negative side (Bevan, 2008; Harris & Darby, 2010). C. Hendrick and Hendrick (1983) noted that some people contend that “jealousy is unhealthy and a sign of deficit” (p. 121). Buunk and Bringle (1987) argued that jealousy is a potentially destructive emotion in intimate relationships. White and Mullen (1989) suggested that jealousy is most closely associated with the love style of “mania,” which is characterized by uncertainty about the partner’s love and by extreme emotional reactions often in an obsessive fashion.

Bad Individual Difference Correlates of Jealousy

Research shows that jealousy is associated with a variety of individual difference factors usually considered as negative or “bad.” Jealousy has been associated with low self-esteem, low self-confidence, low generalized trust, low empathy for others, loneliness, a need for approval, neuroticism, depression, and generalized hostility (Bringle, 1981; Buunk, 1997; Buunk & Dijkstra, 2000; Radecki-Bush, Farrell, & Bush, 1993; Rotenberg, Shewchuk, & Kimberley, 2001; Salovey & Rodin, 1985, 1989; Stieger, Preyss, & Voracek, 2012; Tarrier, Beckett, Harwood, & Ahmed, 1989; Thomas, Miller, & Warner, 1988). Evidence also has linked jealousy with differences in adult romantic attachment style, such that insecurely attached individuals (particularly the anxious insecure type) are more prone to experience jealousy than those with a secure attachment style (Guerrero, 1998; Harris, 2009; Sharpsteen & Kirkpatrick, 1997; White & Mullen, 1989).

Bad Relationship Functioning Correlates of Jealousy

Jealousy has also been linked to several aspects of relationship weakness. Jealousy is associated with being emotionally dependent on one’s partner (Buunk, 1995; White, 1981; White & Mullen, 1989). Jealousy is found more often among those who are in relationships characterized by low commitment and sexual nonexclusivity (Hansen, 1983; Pines & Aronson, 1983; Salovey & Rodin, 1985). Jealousy is associated with greater dissatisfaction with the relationship in general (Anderson, Eloy, Guerrero, & Spitzberg, 1995; Guerrero & Eloy, 1992) and with sexual aspects of the relationship in particular (Hansen, 1983; Pines & Aronson, 1983).

Bad Behavior and Jealousy

At its worst embodiment, jealousy is associated with aggression and violence. Jealousy has been reported as a factor in aggressive behaviors toward romantic rivals (DeSteno, Valdesolo, & Bartlett, 2006; Paul, Foss, & Galloway, 1993) and in contributing to intimate partner violence (Chiffriller & Hennessy, 2007; Harris, 2003; Mullen, 1995). Extreme jealousy—called “pathological or morbid jealousy”—has been observed in some homicidal “crimes of passion” (Mullen, 1993; Wilson & Daly, 1996).

Jealousy As Good

While recognizing the abundance of evidence for the dark side of jealousy, other scholars argue that although the experience or expression of jealousy may indeed be negative, its function can

nonetheless be positive or good for the survival of the relationship (Berscheid, 1983; Knox, 1988; Salovey & Rodin, 1985). In response to a jealous partner, one may avoid forming other relationships or no longer take his or her current partner for granted. In their literature review, Harris and Darby (2010) concluded, "Despite its destructive side, jealousy also may have some positive effects for individuals and relationships. For example, it alerts one to relationship threats and can motivate behaviors that protect the relationship" (p. 547).

Good Relationship Functioning Correlates of Jealousy

Jealousy has been found to be positively associated with several relationship-sustaining qualities. More specifically, jealousy is associated with greater love for the relationship partner (Dugosh, 2000; Mathes & Severa, 1981; White, 1984), with feelings of being more "in-love" with the partner (Bringle, Renner, Terry, & Davis, 1983), and with greater relationship stability (Mathes, 1986).

Evolutionary Psychology and Jealousy

Considering jealousy as a protective (i.e., good) response to relationship threat coincides with the evolutionary psychological perspective on relationships. From this approach, romantic jealousy is an adaptive emotion that is necessary to aid those who are in danger of losing their relationship partner to a rival and thus must act to prevent the potential loss of their partner's sexual reproductive benefits (Buss, 2000). This may be due to a collective history that shows that attempts at mate poaching do occur and are sometimes effective in stealing away a sexual partner (Schmitt & Buss, 2001). Jealousy may have evolved to deter a partner's infidelity. Thus, in this view, jealousy is central to relationship-enhancing goals of mate guarding and mate retention, and is therefore not a personal failing or pathology, despite its sometimes negative consequences.

Evolutionary psychology also has a prediction for who is most likely to be jealous. In some couples, one partner has the ability to attract potential replacement partners more easily than the other partner (i.e., what is called "fluctuating asymmetry" in mate value, such as physical attractiveness, good health, and resources—see Gangestad & Thornhill, 1997). In this context, it is considered adaptive for those who are relatively less attractive (compared with other potential rivals) to become jealous within their own relationships as a way to keep the relationship intact. Brown and Moore (2003) found evidence for this argument in a study that correlated a self-report measure of fluctuating asymmetry with the level of romantic jealousy. This imbalance in attractiveness to others outside the relationship may then influence the use of romantic jealousy as an adaptive response rather than as a personal negative trait.

A Multidimensional Approach to Jealousy

This review of the literature has produced evidence for negative and positive sides of romantic jealousy. Perhaps this paradoxical pattern of findings is due to the use of research methodologies and measurement approaches that did not capture the true complexity of romantic jealousy. Indeed, most scholars now favor a multidimensional approach to better understand how jealousy is conceptualized and experienced (Bevan & Samter, 2004; Buunk, 1991, 1997; Buunk & Dijkstra, 2006; Harris, 2009; Pfeiffer & Wong, 1989; Salovey, 1991; Sharpsteen, 1991).

The transactional model of jealousy offered by Bringle (1991; Rydell & Bringle, 2007) is an influential multidimensional approach that specifies two types of jealousy. The "suspicious" type involves primarily thoughts, behaviors, and feelings that are usually experienced in the absence of any major jealousy-evoking events. The person having high levels of anxiety, doubt, suspiciousness, personal insecurity, and also insecurity about the relationship further characterizes suspicious jealousy. In contrast, the "reactive" type of jealousy occurs most strongly when concrete transgressions (e.g., sexual flirting or affairs) violate critical aspects of the relationship bond between partners (e.g., expectations of sexual exclusivity). Thus, reactive jealousy is in direct response to the discovery of actual events that threaten the stability of the relationship. The transactional model of jealousy considers these two types of jealousy as having distinct antecedents. A prime distinction is that suspicious jealousy is related more to endogenous or internal individual factors (e.g., personal fears of insecurity or low self-esteem) whereas reactive jealousy is related more to exogenous factors that come from the social context and the relationship (e.g., actions of others in the situation or betrayal of relationship trust).

Other multidimensional approaches to jealousy put forth by Buunk (1991, 1997) and by White and Mullen (1989) identify three general manifestations of jealousy: emotional, cognitive, and behavioral. Pfeiffer and Wong (1989) developed the Multidimensional Jealousy Scale (MJS) to assess these three aspects of jealousy. Their initial report on the MJS presented evidence from three studies that it had good internal reliability, clean factor structure, and adequate validity (i.e., positive correlations between the scales and other measures of jealousy used in past studies). Subsequent research has further supported the validity and reliability of the MJS (Brewer & Riley, 2009, 2010; Clarke, DeCicco, & Navara, 2010; Elphinston, Feeney, & Noller, 2011; Ginkel, 1992; Guerrero & Eloy, 1992; Guerrero, Eloy, Jorgensen, & Anderson, 1993; Knoblauch, Solomon, & Cruz, 2001; McGuirk & Pettijohn, 2008; E. B. Russell & Harton, 2005; Southard, 2010; Stieger et al., 2012; Teranishi, 2006). Pfeiffer and Wong described how the dimensions differ in the following way: "Although emotional jealousy is a fairly

common experience in reaction to threats from rivals to a valued relationship, cognitive and behavioral jealousy may be pathological, especially when they are not justified by reality" (p. 194). Applied to Bringle's (1991) transactional model of jealousy, the cognitive and behavioral scales of the MJS represent different aspects of the "suspicious" type of jealousy, whereas the Emotional Jealousy scale represents the "reactive" type of jealousy.

Assessing these different dimensions of jealousy allows the opportunity to explore how jealousy relates in different ways to other factors and thus helps to clarify some of the paradoxical findings in past studies. Pfeiffer and Wong (1989) found that love for the relationship partner was positively correlated with emotional jealousy but negatively correlated with cognitive jealousy. Another study found similar results with emotional jealousy being associated with greater relationship intimacy, whereas cognitive jealousy was associated with uncertainty about the relationship (Knoblauch et al., 2001). Rydell and Bringle (2007) also found a similar pattern of results in a pair of studies using the MJS to test predictions based on the transactional model of jealousy. They found that greater emotional/reactive jealousy was related to greater relationship dependency and greater trust in the relationship partner. In contrast, they also found that greater suspicious jealousy (as measured by a combined index of the cognitive and behavioral subscales of the MJS) was related to greater insecurity about the relationship, lower trust in the relationship partner, and to several negatively valued individual difference measures (i.e., anxious romantic attachment style and lower self-esteem). All of these findings support the transactional model of jealousy.

Other researchers have also found similar divergent patterns of results for these different dimensions of jealousy. In a study of both homosexual and heterosexual relationships, when jealousy was in response to a threat to the relationship (i.e., emotional reactive jealousy), it was positively related to relationship quality, whereas anxious (i.e., suspicious) jealousy was negatively related to relationship quality (Barelds & Dijkstra, 2006). Three other studies conducted by these same researchers replicated this pattern of findings using data from community samples of almost 1,000 cohabitating and married heterosexual couples and different measures of relationship quality (Barelds & Barelds-Dijkstra, 2007). In all three studies, emotional reactive jealousy was related to higher relationship quality, and anxious types of suspicious jealousy were associated with lower relationship quality. In all four of these studies, a third, more severe, form of jealousy—possessive jealousy—was not associated with relationship quality.

The careful reader will note that these findings with the MJS and similar multidimensional measures of jealousy are all consistent with the different divergent findings presented earlier for studies linking simpler measures of jealousy with a range of bad and good aspects of relationship functioning. To the extent that relationship-enhancing elements such as

relationship quality and feelings of intimacy and love are all positively associated with relationship closeness, it is reasonable to make an additional prediction based on these findings. Thus, not only should greater relationship closeness be positively associated with emotional/reactive jealousy but we can also predict that greater relationship closeness should be negatively associated with suspicious jealousy.

Overview of the Measures Used in This Study

In this study, young adults involved in premarital relationships completed a questionnaire with a large battery of self-report measures that assessed different kinds of jealousy as well as a variety of individual difference and relationship constructs.

Individual difference measures were included that represent some of the major personological factors in the study of close relationship. These include romantic attachment styles, six different romantic love styles, romantic beliefs, and loneliness.

The emotional or affective aspects of romantic relationships are important to consider in studying jealousy—as jealousy is considered an emotion. This study included several different affective relationship measures, including feelings of love, being in-love, and recent positive and negative emotional experiences in the relationship.

The behavioral aspects of romantic relationships are important to consider as well. This study included several different behavioral relationship measures, including the exclusivity of the relationship, the behavioral interdependence or closeness of the relationship, and the longevity of the relationship.

The social exchange model is a major conceptual approach used to forecast relationship development and future stability (Attridge & Berscheid, 1994; Kelley et al., 1983). The core components of the model include satisfaction with the relationship, comparison level for alternatives with the current relationship partner, and barriers to leaving the relationship. Generally, relationship stability is enhanced when both partners are satisfied with the relationship, perceive few good alternatives, and have strong barriers to leaving. Past research has linked jealousy with social exchange constructs (Berscheid & Ammazzalorso, 2001; Buunk, 1991).

Each of the measures was categorized by the study author as being "bad" or "good" for the person or for the relationship. The "bad" factors included interpersonal loneliness, insecure romantic attachment style, the mania (possessive) and ludus (game-playing) romantic love styles, negative emotions experienced in the relationship, and perceiving that one's relationship alternatives are better than the current partner. Conversely, the "good" factors included overall life satisfaction, secure romantic attachment style, the agape (altruistic) and eros (passionate) styles of romantic love, positive emotions experienced in the relationship, exclusive

relationship status, relationship closeness, satisfaction with the relationship, and longitudinal outcomes of continued relationship stability and—among those who had remained together—the level of current satisfaction with the relationship at the follow-up.

Research Hypotheses

Hypothesis 1: Greater relationship closeness will be positively associated with emotional reactive jealousy and negatively associated with suspicious jealousy.

Hypothesis 2: The reactive type of emotional jealousy will have a profile that features positive associations with the “good” person and relationship factors and negative associations with the “bad” person and relationship factors.

Hypothesis 3: The suspicious types of cognitive and behavioral jealousy will have a profile that includes positive associations with “bad” person and relationship factors and negative associations with “good” person and relationship factors.

Method

Procedure and Sample

A convenience sample of undergraduates ($N = 229$) from an introductory psychology course participated in the study in exchange for extra credit. The criterion for participation was being currently involved in a romantic relationship. All procedural aspects of the study methodology were approved by the Institutional Review Board at the University of Minnesota and by the faculty in the Department of Psychology as ethical for use with human subjects.

The sample included female (62%) and male (38%) participants. The mean age was 19 years old (range = 18–33). The racial composition of the sample was mostly Caucasian (78%) with several other races represented as well (10% Asian American, 4% African American, 3% Native American, and 5% Other). The sample included a range of relationship commitment, with most dating only their current partner (71% exclusive dating, 22% dating nonexclusively, 4% cohabitating, and 4% engaged). All of these individuals were in heterosexual relationships. Most respondents had known their relationship partner for more than 2 years ($M = 26.9$ months, range = 1–144 months).

Time 1 Measures

Measures of jealousy, demographic, person, and relationship factors assessed at Time 1 are described in this section.

Jealousy Scales. The MJS (Pfeiffer & Wong, 1989) was used to assess emotional, cognitive, and behavioral aspects of

romantic jealousy. Each scale of the MJS has eight items. The Emotional Jealousy scale used the instructions of “How would you emotionally react to the following situations?” (example items: “Your partner is flirting with someone of the opposite sex” and “Your partner hugs and kisses someone of the opposite sex”). The Cognitive Jealousy scale used the instructions of “How often do you have the following thoughts about your partner?” (example items: “I think my partner is secretly developing a relationship with someone of the opposite sex” and “I am worried that someone of the opposite sex is trying to seduce my partner”). The Behavioral Jealousy scale included instructions of “How often do you engage in the following behaviors?” (example items: “I question X about his or her telephone calls” and “I look through my partner’s drawers, handbag, or pockets”). A 7-point rating scale was used for all items—responses to the Emotional Jealousy scale ranged from 1 (*very pleased*) to 7 (*very upset*), whereas responses to the Cognitive and Behavioral Jealousy scales ranged from 1 (*never*) to 7 (*all the time*). Item scores were appropriately combined and averaged to yield an Emotional Jealousy scale ($\alpha = .84$), a Cognitive Jealousy scale ($\alpha = .88$), and a Behavioral Jealousy scale ($\alpha = .82$). Higher scores on each scale indicate a higher level of jealousy.

Self-Report Jealousy. As a complement to these multi-item jealousy measures, the experience of jealousy in the relationship was also assessed using a single self-report item. Mixed in among a set of 12 emotion terms (described in the following sections), the term *jealousy* was rated for “how frequently in the *past week* have you felt that emotion concerning your partner and/or the relationship.” The Likert-type rating scale ranged from 1 (*never*) to 7 (*almost always*).

Demographic Factors. Respondent age, sex, race, and college grade point average were assessed using single-item measures. For the purposes of analyses, race was dichotomized to be 1 = *Caucasian* and 0 = *all other racial groups*.

Life Satisfaction. A five-item measure was used to assess global life satisfaction (Deiner, Emmons, Larsen, & Griffin, 1985). The Satisfaction with Life Scale was psychometrically developed and has good internal reliability, test–retest reliability, and construct validity. A 7-point response scale was used, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Item scores were averaged to create an index with higher scores indicating greater life satisfaction ($\alpha = .83$).

Loneliness. The 20-item revised *UCLA Loneliness Scale* (D. Russell, Peplau, & Cutrona, 1980) was used to assess interpersonal loneliness. This measure of loneliness is of a general nature that is not specific to loneliness in the current romantic relationship. Sample item: “I feel isolated from others.” Used in many past studies, this scale has high levels of measurement reliability and validity. The instructions

asked respondents to “indicate how often you feel the way described in each of the following statements” using a 4-point response scale, ranging from 1 (*never*) to 4 (*often*). After reverse scoring of appropriate items, all items were averaged to form an index with higher scores indicating greater loneliness ($\alpha = .90$).

Romantic Attachment Style. A 13-item measure developed by Simpson (1990) was used to assess adult romantic attachment style. The instructions for this measure asked respondents to rate their level of agreement on a 7-point scale (with anchors of 1 = *strongly disagree* and 7 = *strongly agree*) with each item for how they “typically feel toward romantic partners in general.” After reverse scoring of appropriate items, scores were averaged and used to create two summary indexes. Based on previous factor analytic findings (Simpson, 1990; Simpson, Rholes, & Nelligan, 1992), one index was based on 8 items and reflected a “secure versus avoidant” attachment style (sample item: “I find it relatively easy to get close to others”) and the other index was based on 5 items and represented an “anxious versus nonanxious” attachment style (sample item: “I rarely worry about being abandoned by others” [reversed]). Higher scores on the first index represent a more secure attachment style ($\alpha = .73$) and higher scores on the second index represent a more anxious attachment style ($\alpha = .61$) of relating to romantic partners. Past research (Attridge, 1995; Simpson et al., 1992) has found these two indexes to have adequate validity and reliability.

Romantic Love Styles. The 42-item Love Attitudes Scale (C. Hendrick, Hendrick, Foote, & Slapion-Foote, 1984) was used to measure six kinds of romantic love styles. Prior research has confirmed the internal reliability, temporal stability, and construct validity of these measures (Davis & Latty-Mann, 1987; S. S. Hendrick & Hendrick, 1992). *Agape* reflects an altruistic and selfless style of love (sample item: “I try to always help my lover through difficult times”; $\alpha = .85$). *Eros* represents the passionate sexual style of love (sample item: “My lover and I were attracted to each other immediately after we met”; $\alpha = .72$). *Ludus* represents a game-playing and uncommitted love style (example item: “I try to keep my lover a little uncertain about my commitment to him or her”; $\alpha = .78$). *Mania* is the overly emotional and obsessive style of love (sample item: “Even though I don’t want to be jealous, I can’t help it when my lover pays attention to someone else”; $\alpha = .76$). *Pragma* is the pragmatic and rational love style (sample item: “I considered what my lover was going to become in life before I committed myself to him or her”; $\alpha = .81$). *Storge* is the friendship and companionate style of love (sample item: “The best kind of love grows out of a long friendship”; $\alpha = .63$). The instructions for these measures asked respondents to rate their level of agreement on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Item scores were averaged to form a

summary index for each love style, with higher scores indicating greater endorsement.

Romantic Beliefs. The 14-item Romantic Belief Scale (Sprecher & Metts, 1989) was used to assess the degree of romanticism and idealization of the relationship. Four beliefs comprising the scale were as follows: Love Finds a Way, One and Only, Idealization, and Love at First Sight. Sample item: “I believe that we are truly in-love and that we will be in-love forever.” Each item was rated on a 7-point scale, with anchors of 1 (*strongly disagree*) and 7 (*strongly agree*). Item scores were averaged to create a total index ($\alpha = .82$), with higher scores indicating greater romanticism.

Feelings of Love and In-Love. The item “I love X” was to assess how much the person loved his or her current relationship partner. This item was rated on a 9-point response scale, ranging from 1 (*not at all true/disagree completely*) to 9 (*completely true/agree completely*). “I am in-love with X” was used to assess how much the person was in-love with the partner. This item was rated on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). As expected, these two items were positively correlated ($r = .67, p < .001$).

Relationship Emotional Experiences. The emotions experienced in the relationship were assessed using specific terms representing positive emotion (excited, joyful, passionate, content, happy, and needed) and negative emotion (angry, fearful, frustrated, lonely, and sad). These 11 terms are a subset of 27 terms used in prior studies of romantic relationships (Attridge, Berscheid, & Simpson, 1995). Items were listed in alphabetical order and each was rated using a 7-point scale with anchors of 1 (*never*) and 7 (*almost always*). The instructions were to indicate “how frequently in the *past week* you felt that emotion concerning your partner and/or the relationship.” Ratings were averaged to form two summary indexes, one for positive emotion ($\alpha = .86$) and the other for negative emotion ($\alpha = .78$), with higher scores on each index representing greater frequency of experience.

Relationship Closeness. The three subscales of the Relationship Closeness Inventory (RCI; Berscheid et al., 2004; Berscheid, Snyder, & Omoto, 1989a, 1989b) were used to assess different aspects of partner interdependence. The RCI Frequency subscale measures the number of hours the partners spent alone together in the morning, afternoon, and evening of the past week ($\alpha = .72$). The RCI Diversity subscale measures how many of 38 different specific activities (e.g., ate a meal, did laundry, engaged in sexual relations) the partners had done alone together during the past week (Kuder-Richardson Formula 20 [KR-20] = .91). The RCI Strength subscale uses 34 items to assess the perceived level of influence that the partner exerts on their current decisions and activities as well as future plans and goals ($\alpha = .88$). Unlike the other subscales, the RCI Strength subscale includes

cognitive aspects of current and future closeness rather than reports of purely behavioral events recently experienced in the relationship. Each subscale has a score that can range from 1 to 10, with higher scores indicating greater closeness. The total RCI adds the three subscales together for a score that can range from 3 to 30 ($\alpha = .76$). Previous research has demonstrated the construct and predictive validity, as well as the internal and test-retest reliability, of these scales (see Attridge, 1995; Attridge et al., 1995; Berscheid et al., 1989b, 2004; Hurlbert, Apt, & Rabehl, 1993).

Relationship Duration. The fourth component of the closeness model of partner interdependence is the duration or longevity of the relationship (Berscheid et al., 1989a, 2004). This component was assessed with a single item (Berscheid et al., 1989b)—“How long have you known this person? Please indicate a number in years and/or months (e.g., 3 years and 8 months).” Due to the skewed distribution of this measure (i.e., many low values), a square root transformation was conducted and the transformed values were used in all analyses.

Relationship Exclusivity. The item, “which one of the following best describes your relationship,” was used to assess the stage of relationship development. The response categories included dating this person and others, dating only this person, living together, engaged, or married. A dichotomous measure of relationship exclusivity was created by coding the first category as “nonexclusive” (0; 22% of the sample) and the remaining categories as “exclusive” (1; 78% of the sample).

Relationship Satisfaction. The seven-item scale developed by S. S. Hendrick (1988) was used to assess overall satisfaction with the relationship. Sample item: “How good is your relationship compared with most?” The items were responded to on a 7-point scale with anchors of 1 (*low*) and 7 (*high*). After reverse scoring of appropriate items, the responses to all items were averaged to form a total index ($\alpha = .87$) with higher scores indicating greater relationship satisfaction.

Comparison Level of Alternatives. A measure adapted from Simpson (1987) was used to assess how the outcomes obtained from the current partner compared with the respondent’s estimates of the level of positive “outcomes” that could be obtained from his or her best available alternative partner. Eleven attributes (e.g., financial resources, physically attractive, and emotionally supportive) were rated on a 7-point response scale, ranging from 1 (*alternative much WORSE than my partner*), to 4 (*alternative EQUAL to my partner*), to 7 (*alternative much BETTER than my partner*). Item scores were averaged to create a total index ($\alpha = .97$), with higher scores indicating greater alternative outcomes.

Barriers to Relationship Breakup. Barriers are personal and social factors that make it more difficult to leave a

relationship. Barriers are considered to be most important when one is dissatisfied with the relationship partner and feels that the alternatives are better than staying in the relationship (Levinger, 1976). Internal psychological and external social barriers to relationship breakup were assessed using scale items representing 11 areas (Attridge, 1994, 2009), including personal commitment to maintaining the relationship, the relationship as an important part of self-identity, sharing a living space, financial dependence on partner, and social network support for relationship. This scale used the item-response stem of “Is this a part of your relationship right now?” and used a 4-point response scale (1 = *no*, 2 = *a bit*, 3 = *somewhat*, and 4 = *yes*). Item ratings were averaged to yield a total index ($\alpha = .67$), with higher values indicating greater barriers to relationship breakup.

Time 2 Sample and Measures

On the initial questionnaire, all participants were asked whether they would consent to being in a follow-up study of their relationship, and 122 (53%) agreed to do so. Approximately 3 months later, these individuals were mailed a questionnaire and a postage-paid return envelope. In all, 75 usable questionnaires were returned (a return rate of 62%).¹ These 18 males and 57 females participated voluntarily and did not receive any direct compensation.

Relationship Stability. At the follow-up, participants were asked, “When you completed the questionnaire last October, you were dating a person with the initials of _____. Are you still dating this person? Yes or No.” This variable was dichotomously coded as 1 = *still dating* or 0 = *no longer dating*. Results were that 54 of the 75 respondents (72%) were still dating their same partner and 21 respondents were no longer in the same relationship.

Later Relationship Satisfaction. Those who were still dating their partner completed the same measure of relationship satisfaction again at the follow-up (Time 2 $\alpha = .87$). Respondents tended to have similar levels of satisfaction at both time points (test-retest $r = .57$, $p < .001$).

Analytical and Statistical Considerations

To test conceptual model predictions, emotional, cognitive, and behavioral aspects of jealousy are examined for their correlations with a measure of relationship closeness. Other conceptually relevant sets of positively and negatively valued individual difference and relationship functioning measures are also assessed and tested for possible associations with the different jealousy measures.

Analytical Strategy—Time 1 Data. To control for the experiment-wise error rate in hypothesis testing associated with conducting a large number of statistical tests (Kirk, 1982), the criteria for statistical significance for tests conducted in

the total sample at Time 1 were set at $p < .01$ level rather than the typical $p < .05$ level. With 229 cases, the level of statistical power ($1 - \beta$) was very high at .99 (calculations derived from Howell, 1982; based on parameters of detecting a medium size effect, that is, $r = .30$, and a two-tailed test with a critical significance level of $p < .01$). Note that .80 or higher is considered an adequate level of statistical power (Cohen, 1988).

Analytical Strategy—Time 2 Data. Because of the smaller size of the Time 2 subsamples, a more lenient critical level of $p < .10$ was used. The level of the statistical power, based on parameters of detecting a medium size effect ($r = .30$) and a two-tailed test with a critical significance level of $p < .10$, was approximately .83 for analyses conducted in the Time 2 total sample ($n = 75$) and .71 for analyses conducted in the still dating subsample ($n = 54$; calculations derived from Howell, 1982). Although data were available, analyses of other longitudinal outcomes experienced by those in the breakup subsample (i.e., distress over the end of the relationship) are not presented due to the measurement unreliability and low statistical power (.37) based on a small sample size ($n = 21$).

Results

The results are presented in five parts. Part 1 examines the construct validity of the measures of jealousy. Part 2 provides a descriptive profile of the sample. Part 3 presents findings relevant to Hypothesis 1 for jealousy and relationship closeness. Part 4 presents findings relevant to Hypothesis 2 and the profile of emotional reactive jealousy. Part 5 focuses on findings relevant to Hypothesis 3 and the profile of the two suspicious kinds of jealousy.

Part 1: Construct Validity of Jealousy Measures

Factor analysis of the 24 MJS items was conducted using the principal components method of factor extraction with varimax rotation for orthogonal factors. This analysis produced, as expected, three factors. The pattern of item factor loadings indicated three unidimensional and orthogonal factors. All eight items from a particular scale loaded on only one factor and not on the other factors (i.e., loading criteria of $\geq .40$). Specifically, the first factor (all the cognitive scale items loaded above .68) had an eigenvalue of 6.20 and accounted for 25.8% of the total variance, the second factor (all emotional scale items loaded above .58) had an eigenvalue of 3.86 and accounted for 16.1% of the total variance, and the third factor (all behavioral scale items loaded above .52) had an eigenvalue of 2.27 and accounted for 9.5% of the total variance. These factor analysis results indicate that this set of items measured three distinct dimensions of jealousy.

It is also valuable to examine the shared variance among the jealousy measures. If these scales are valid measures of

distinct dimensions of the same underlying jealousy construct, they should be positively associated with each other but not share too much variance as to be redundant. The test results (see Table 1) reveal that emotional and cognitive jealousy were uncorrelated, emotional and behavioral jealousy were positively correlated, and cognitive and behavioral jealousy were positively correlated. Although some of these measures of jealousy had modest overlap, over three fourths of this variance was not shared. Thus, these measures successfully represent different dimensions of romantic jealousy.

To further establish construct validity, all three of the jealousy scales should be positively associated to some degree with the level of jealousy recently experienced in the relationship. Results indicated that experiencing higher levels of “jealousy” in the context of the relationship during the past week was positively correlated with each of the three jealousy scales (see Table 1; average $r = .37$).²

In addition, examination of the average ratings for the jealousy measures (see Table 1) reveals that emotional jealousy had the highest mean score, followed by cognitive, behavioral, and self-report jealousy. However, only emotional jealousy was endorsed at a level higher than the scale midpoint (i.e., above 4 on the 1-7 scale). These results for average levels of these kinds of jealousy are consistent with many other studies using the MJS. Tests comparing these mean scores indicated that emotional jealousy was significantly ($p < .001$) higher than all of the other types of jealousy, cognitive jealousy was significantly higher than both behavioral and self-report jealousy, and behavioral and self-report jealousy did not differ from each other.

Evidence of discriminant validity was found in that none of the jealousy scales or the single item of jealousy experience were significantly associated with the demographic factors of age, sex, race, or a proxy for general intelligence (college grade point average; see Table 1). Note that finding a lack of a sex difference in jealousy is consistent with most other research (Harris, 2005; Wade, Kelley, & Church, 2012).

Part 2: Descriptive Profile of the Sample

Examination of the mean score for each measure presented in Tables 2 and 3 compared with the midpoint of the respective rating scales offers a descriptive profile of characteristics of the individuals in the study sample and their relationships. For the person factors, most of the individuals in the study were moderately satisfied with life, were not lonely, had a romantic attachment style that was more secure than insecure, were highest in the eros (passionate) and agape (selfless) love styles, lowest in the ludus love style, and had moderate levels of the storge, mania, and pragma love styles. The sample was characterized by scores that were higher than the rating scale midpoints for feelings of love for the partner, being in-love with the partner, experiencing positive emotions frequently the past week concerning the relationship partner, the frequency of

Table 1. Time 1 Jealousy and Demographic Measures: Descriptive and Correlational Results ($N = 229$)

Measure	Correlations with jealousy					
	<i>M</i>	<i>SD</i>	Emotional	Cognitive	Behavioral	Self-report
Jealousy						
Emotional	5.31 ^a	0.92	—	.11	.18**	.27**
Cognitive	2.80 ^{b,c}	1.22		—	.45**	.49**
Behavioral	2.46 ^{b,d}	1.05			—	.33**
Self-report	2.34 ^{b,d}	1.63				—
Demographic						
Age (in years)	19.13	2.23	-.05	-.05	.11	-.10
Sex	0.38	0.49	-.11	.15	-.05	.09
Race	0.78	0.41	.00	-.06	-.12	-.06
Grade point average	3.12	0.50	-.11	.03	-.02	.04

Note: Jealousy ratings on 1-7 scale. Sex coded as 1 = male and 0 = female. Race coded as 1 = Caucasian and 0 = all other racial groups.

^aSignificantly higher than other mean scores with ^b

^cSignificantly higher than other mean scores with ^d

** $p < .01$ (two-tailed).

Table 2. Correlations of RCI Scores With Jealousy Measures ($N = 229$)

RCI measure	<i>M</i>	<i>SD</i>	Category	Correlations with jealousy		
				Emotional	Cognitive	Behavioral
RCI—Total	17.49	6.20	Good	.18**	-.17**	.08
RCI—Frequency	7.33	3.98	Good	.09	-.19**	.02
RCI—Diversity	5.12	2.26	Good	.11	-.16	.09
RCI—Strength	5.41	1.36	Good	.33**	.05	.15
Relationship duration ^a	5.19	2.65	Good	.03	.01	.03

Note: RCI = Relationship Closeness Inventory. RCI total index has a 3-30 range and the RCI subscales have a 1-10 range, each with higher scores indicating more of each construct.

^aSquare root transformation of number of months known partner.

** $p < .01$ (two-tailed).

interacting with the partner in the past week, being satisfied with the relationship, and having barriers to breakup. The scores for romantic beliefs, diversity and strength of relationship closeness, overall closeness, and comparison levels of alternatives were approximately at the scale midpoints.

Thus, the relationships in this study were largely positive in nature, mostly of exclusive dating status, and they had been together for an average of more than 2 years. These are conditions that should offer a good opportunity to test how jealousy relates to these person factors and relationship qualities—particularly for the emotional reactive positive form of jealousy as many of these relationships have high or moderate value. However, having some relationships in the sample that were nonexclusive and lower in relationship-enhancing factors offers the range needed to properly test for the negative side of jealousy.

Part 3: Tests of Hypothesis 1

Based on Berscheid's (1983) conceptual model and other more recent studies of similar relationship qualities, greater

relationship closeness was expected to be positively associated with emotional reactive jealousy and negatively associated with suspicious jealousy. Table 2 provides the results of correlational tests between the RCI; its three subscales of Frequency, Diversity, and Strength; and relationship duration with the three MJS measures of jealousy.³

As predicted, the overall RCI closeness measure was positively correlated with emotional/reactive jealousy. But this finding was driven mostly by the more psychologically based strength of closeness subscale, as the other two RCI subscales that refer to frequency and diversity of behavioral interaction were not correlated with emotional jealousy. Thus, the more that the relationship partner was considered to be important to one's decisions, plans, future goals, and sense of self-identity (i.e., scored higher on the RCI Strength subscale), the more the person was ready to react jealously (i.e., scored higher on the Emotional Jealousy scale).

In addition, cognitive/suspicious jealousy was negatively correlated with overall closeness, mainly due to the RCI Frequency subscale. Thus, the less time that the couple spent

Table 3. “Good” Person and Relationship Factors: Descriptive Data and Correlations With Jealousy Measures

Measure	<i>M</i>	<i>SD</i>	Correlations with jealousy		
			Emotional	Cognitive	Behavioral
Time 1 person factors					
Life satisfaction	4.29	1.18	−.08	−.30**	−.09
Secure/nonavoidant romantic attachment style	4.57	0.88	.08	−.22**	−.09
Agape (altruistic) love style	5.05	1.05	.34**	−.07	−.01
Eros (passionate) love style	5.20	0.96	.24**	−.05	−.08
Pragma (rational) love style	3.88	1.17	.13	.09	.16
Storge (companionate) love style	4.76	0.93	.11	−.07	.06
Romantic beliefs	4.46	0.88	.19**	−.05	.03
Time 1 relationship factors					
Positive emotions	5.23	1.27	.18**	−.25**	.00
Love ^a	7.28	2.14	.28**	−.18**	−.04
In-love	6.00	1.33	.28**	−.18**	.07
Relationship exclusivity	0.78	0.41	.37**	−.08	.04
Relationship satisfaction	5.52	1.20	.24**	−.34**	−.09
Barriers to breakup ^b	3.80	0.77	.32**	−.13	.09
Time 2 measures					
Relationship stability ^c	0.72	0.39	.03	−.14	.02
Relationship satisfaction	5.92	0.88	.35**	−.44**	.08

Note: Time 1 $N = 229$. Time 2 at 3 months after Time 1. Stability $n = 75$, and Satisfaction $n = 54$ still dating. Unless otherwise noted, all measures use a 1-7 scale, with higher scores indicating more of each construct.

^a1-9 scale.

^b1-4 scale.

^c0-1 scale.

** $p < .01$ (two-tailed).

together, the higher the level of cognitive jealousy and suspicion about the partner's fidelity.

Finally, the other kind of suspicious jealousy, behavioral jealousy, was not significantly correlated with any of the measures of relationship closeness. How long the partners had known each other (duration of closeness) also was not correlated with any of the jealousy measures.

Part 4: Tests of Hypothesis 2

For Hypothesis 2, it was expected that the emotional/reactive type of jealousy—as represented by the MJS Emotional Jealousy subscale—would have a profile that featured positive associations with the “good” person and relationship factors and negative associations with the “bad” person and relationship factors. Table 3 displays the results of correlational tests of the “good” person and relationship factors with the three jealousy measures. Table 4 displays the results of correlational tests of the “bad” person and relationship measures with the jealousy measures.

The findings largely confirm this prediction. Emotional jealousy was correlated in the expected directions with some of the person factors and with many of the relationship factors. Specifically, as can be seen in Table 3, emotional jealousy was positively associated with “good” person factors of

the agape and eros love styles, having more romantic beliefs about the partner, the “good” relationship factors of experiencing positive emotions more frequently in the relationship, feeling love for the partner, being in-love with the partner, having an exclusively committed relationship, stronger barriers to breakup, and higher satisfaction with the relationship at Time 1 and again at Time 2, three months later. As can be seen in Table 4, emotional jealousy was also negatively correlated with the ludus love style.

The unsupportive findings were that emotional jealousy was associated with two of the “bad” measures. It had positive correlations with the mania love style and with experiences of negative emotions in the relationship.

Finally, emotional jealousy was not correlated with life satisfaction, loneliness, either of the romantic attachment styles, the pragma and storge love styles, relationship duration, level of alternatives to the current partner, and longitudinal relationship stability.⁴

Part 5: Tests of Hypothesis 3

For Hypothesis 3, it was expected that the suspicious types of jealousy—as represented by the MJS Cognitive and Behavioral Jealousy subscales—would have a profile that included positive associations with “bad” person and

Table 4. “Bad” Person and Relationship Factors: Descriptive Data and Correlations With Jealousy Measures ($N = 229$)

Measure	<i>M</i>	<i>SD</i>	Correlations with jealousy		
			Emotional	Cognitive	Behavioral
Time 1 person factors					
Loneliness ^a	1.78	0.47	−.05	.30**	−.11
Insecure/anxious attachment style	3.55	1.02	.09	.41**	.18
Ludus (game-playing) love style	2.76	1.17	−.20**	.29**	.20**
Mania (obsessive) love style	4.02	1.10	.37**	.32**	.32**
Time 1 relationship factors					
Negative emotions	2.90	1.25	.20**	.48**	.20**
Comparison level for alternatives	3.42	1.84	−.10	.22**	.17**

Note: All measures use a 1-7 scale, with higher scores indicating more of each construct.

^a1-9 scale.

** $p < .01$ (two-tailed).

relationship factors and negative associations with “good” person and relationship factors.

Cognitive Jealousy. Cognitive jealousy had many significant correlational findings. As can be seen in Table 3, it was inversely correlated with most of the “good” person and relationship factors. Specifically, cognitive jealousy had negative correlations with the secure romantic attachment style, experiencing positive emotions frequently in the relationship, love for the partner, being in-love with the partner, both current relationship satisfaction and relationship satisfaction at 3 months later at follow-up, and barriers to relationship breakup. As can be seen in Table 4, it was also positively associated with many of the “bad” measures. More specifically, cognitive jealousy was positively correlated with loneliness, insecure/anxious romantic attachment style, and the ludus “game-playing” and mania “obsessive” love styles. It was also negatively correlated with life satisfaction. Cognitive jealousy was also positively correlated with the “bad” relationship factors of experiencing negative emotions frequently in the relationship and perceiving better alternatives to the partner.

However, cognitive jealousy was uncorrelated with certain measures, including all the four “good” love styles, romantic beliefs, relationship exclusivity, relationship duration, barriers to relationship breakup, and relationship stability at 3 months later.

Behavioral Jealousy. Behavioral jealousy was unrelated to most measures. However, the four significant correlates that were observed for behavioral jealousy were all similar to those found for cognitive jealousy. Behavioral jealousy was positively associated with the two “bad” love styles of ludus and mania, with the frequency of experiencing negative emotions recently in the relationship and with having more alternatives to the relationship.

Discussion

This study examined how different dimensions of romantic jealousy were associated concurrently and longitudinally with conceptually relevant person and relationship constructs as well as demographic factors. Reliable and valid self-report instruments were used to collect questionnaire data from 229 young adults in premarital romantic relationships. The scales used to assess emotional, cognitive, and behavioral jealousy were found to represent empirically distinct dimensions and each scale had high internal reliability. In addition, each jealousy scale had both convergent and discriminant forms of validity. These psychometric findings strongly support a multidimensional model of romantic jealousy. More importantly, the present study determined that these different dimensions of jealousy relate in divergent ways to a host of other conceptually relevant variables, including relationship closeness.

Hypotheses Revisited

The study made three predictions, each of which was largely confirmed by the findings. Results for each of these major hypotheses are now discussed.

As predicted by Berscheid’s (1983) conceptual model, greater relationship closeness was indeed associated with greater emotional/reactive jealousy. Even though this result was found using the total RCI measure, this association is attributed mostly to the strength of closeness subscale. Thus, the more that the relationship partner was considered to be important to the person, the more that person was ready to react jealously. It was also found that overall closeness and the frequency dimension of relationship closeness were inversely associated with cognitive/suspicious jealousy. This second finding indicates that the more time that the couple had spent together, the less suspicion there was about the partner’s fidelity.

The second prediction was that the emotional/reactive type of jealousy would have positive associations with the “good” person and relationship factors and negative associations with the “bad” person and relationship factors. This prediction was also largely confirmed as it had 10 positive correlations with good factors. And yet, emotional jealousy was not all “good” as it was also associated with the mania love style and with experiencing negative emotions in the relationship (as were both the cognitive and behavioral forms of jealousy).

The third hypothesis was that suspicious types of cognitive and behavioral jealousy would have a profile that included positive associations with the “bad” person and relationship factors and negative associations with the “good” person and relationship factors. This prediction was largely confirmed, especially for the cognitive form of suspicious jealousy, which had six positive correlations with “bad” factors and seven negative correlations with “good” factors. However, the behavioral kind of suspicious jealousy had few associations overall—only 4 of 26 possible tests were significant—but these were all with “bad” aspects, which was what was expected.

Implications

The results of this study offer further empirical evidence in favor of a multidimensional model of jealousy. Common to all three multidimensional jealousy (MJS) scale measures was a positive association with the mania love style (which is the overly emotional and obsessive style of love) and with experiencing negative emotions more often in the relationship. Thus, these two attributes seem to define jealousy regardless of the reactive–suspicious dimensions. Although this base element of jealousy is of interest, the more significant findings to consider from this study are the large number of other results that clearly distinguished emotional/reactive jealousy as mostly “good” and cognitive/suspicious jealousy as “bad.” The emotional/reactive kind of jealousy was also much more commonly experienced (more than twice as much on the same 1–7 rating scales) as the other kinds of jealousy. Thus, being ready to respond with jealousy was a more normative feature of close romantic dating relationships in which the partners are mostly satisfied and functioning well, whereas thinking suspiciously and behaving in a jealous and suspicious manner were not as common.

This study makes several contributions that inform relationship closeness theory and is one of the few studies to test aspects of the Emotion-in-Relationships conceptual model (for other works, see Attridge, 1995; Beckes, 2009). Overall closeness and the more cognitive aspect of relationship closeness (i.e., how one thinks about his or her relationship and how important it is to one’s self-concept) were associated with a higher potential to react emotionally and get jealous. In addition, overall closeness and the behavioral aspect of closeness concerning purely the (*infrequent*) amount of

time recently spent together interacting with the partner were associated with the cognitive/suspicious form of jealousy. Taken together, these findings suggest that when one partner is strongly connected to the other in terms of that person being important to their self-concept and to their future plans then one is prone to react with emotional jealousy when the relationship is threatened. The flip side of the closeness coin is that when relationship partners are not spending enough time together then there is a greater chance of having suspicious thoughts about the fidelity of one’s partner. Both of these findings are consistent with the interdependence model of relationship closeness.

It is also of interest to note that the diversity dimension of closeness had findings that were in the same direction of influence with emotional and cognitive jealousy as was found for the strength and frequency dimensions of closeness, but these correlations did not reach statistical significance. This diversity factor thus did have some contribution to the total RCI score being positively correlated with emotional/reactive jealousy and negatively correlated with cognitive/suspicious jealousy. In contrast, the fourth factor of the relationship closeness conceptual model—the duration of relationship—had near zero correlations with jealousy.

The contrasting pattern of results found for relationship closeness with emotional/reactive and suspicious/cognitive jealousy is similar to what has been found in other studies that have used other multidimensional assessments of reactive and suspicious jealousy and correlated these measures with various other measures akin to strength of relationship closeness, including relationship dependency (Rydell & Bringle, 2007), relationship intimacy (Knoblauch et al., 2001), and relationship quality (Barelds & Barelds-Dijkstra, 2007; Barelds & Dijkstra, 2006). As these relationship factors are often positively intercorrelated and thus may be tapping a more basic underlying theme of relationship functioning, one could argue that it is the level of personal connection to one’s romantic partner—broadly defined to include aspects of closeness/interdependence, dependency, intimacy, and quality—that makes one more prone to become emotionally jealous concerning the relationship. In this way, the study findings are also supportive of the general prediction from evolutionary psychology that reactive jealousy will be more likely for relationships that are worth protecting (i.e., those high in closeness and that are needed for survival).

These findings also have implications for further refining the more general conceptualization of jealousy. This study included four measures of jealousy. Emotional jealousy was assessed with items that asked how one *would act* in regard to potential future events concerning partner infidelity or interest from a romantic rival. In contrast, the cognitive, behavioral, and self-report forms of jealousy were based on items that referred to recently experienced real events. The difference in time orientation and the “potential versus reality” difference of how jealousy was measured in this study may help to interpret the divergent patterns of results for the different

dimensions of jealousy. It appears that a *willingness* to react emotionally to relationship-threatening situations is something quite different from actively thinking about one's partner in a jealous manner at the present time or from actually behaving in a jealous and suspicious manner at the present time.

This clarification concerning potential versus actual jealousy is also conceptually important because it extends the transactional model of jealousy (Bringle, 1991; Rydell & Bringle, 2007), which considers the reactive type of jealousy as being an emotional response to a relationship-threatening event *after* it has occurred—not before. To broaden the concept of reactive jealousy to include the *potential* for reactive emotional jealousy, as well as when it is the “after the fact” makes sense, especially if one is satisfied with relationship, is exclusively committed to their partner, has important plans and goals that involve their partner (i.e., strength of relationship closeness), feels love for their partner, is in-love with the partner, has barriers to leaving the partner and has other rewarding qualities of the relationship.

Thus, the key lesson from this study is that being *ready* to become jealous over relationship-threatening events is itself a signal that the relationship is worthy of such a strong emotional reaction. This is essentially the prediction from Berscheid's (1983) Emotion-in-Relationships model linking closeness and jealousy that was confirmed in this study. Salovey and Rodin (1989) described this point more eloquently when they wrote that “jealousy . . . helps us to identify those relationships . . . that are truly important to us. Without jealousy, close relationships might be more pleasant, but would they be as meaningful?” (p. 242).

Limitations

Taken together, the findings from this research reveal that romantic jealousy is a multidimensional construct with different elements that are both bad and good. There are, however, certain limitations to these findings. This study was conducted on nonmarried college students who were generally quite happy in their relationships. Although there is no reason to expect otherwise, it is unknown whether these findings can be replicated in other more diverse samples. The causal mechanism of how emotional reactive jealousy is linked to relationship closeness requires more study. That emotional jealousy was unable to predict longitudinal relationship stability is troublesome, though, for the argument that it is good for a relationship. However, this period was only 3 months and may have been too brief to offer a solid test of impact on future relationship stability. Other studies have examined how actual experiences of infidelity relate to jealousy (see review in Harris, 2009), but this element of jealousy was not specifically measured in the present study. Another limitation is that only one partner from each couple participated in the study, hence a relationship-level analysis of closeness and jealousy was not possible. For example,

White (1981) has proposed a general hypothesis that within a couple, it is the partner who is relatively more involved (i.e., higher in closeness) who is more likely to be jealous. Hopefully, future investigations can continue this work in ways that overcome these limitations.

Authors' Notes

The data for this study were collected in collaboration with the psychology department at the University of Minnesota.

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Notes

1. Statistical tests revealed that individuals in the follow-up sample did not differ from those not participating in the follow-up on the measures of jealousy or any person characteristics. However, the two subsamples differed significantly (at the $p < .05$ level) on some of the relationship factors. The follow-up participants were higher than nonparticipants on the Time 1 measures of being in-love, frequency of experiencing positive emotions, exclusivity of the relationship, and satisfaction with the relationship.
2. Experiencing the emotion of “jealousy” during the past week was significantly associated (at the $p < .01$ level) with several other Time 1 measures, including lower life satisfaction ($r = -.20$), loneliness ($r = .20$), insecure/anxious romantic attachment style ($r = .38$), the mania love style ($r = .38$), experiencing other negative emotions recently in the relationship ($r = .44$), and lower relationship satisfaction ($r = -.25$). Thus, although emotional experience jealousy had few correlates, the ones it did have were also found for cognitive jealousy.
3. All of these findings for relationship closeness and jealousy reported for the total sample were found to the same extent in other tests conducted separately for both males and females.
4. Even though the measures of jealousy were unable to predict relationship stability, other factors were successful. Specifically, relationship stability was forecasted by Time 1 measures of higher agape love style ($r = .24$), higher positive emotional experiences experienced recently in the relationship ($r = .35$), higher strength of relationship closeness ($r = .28$), and higher relationship satisfaction ($r = .25$).

References

- Anderson, P. A., Eloy, S. V., Guerrero, L. K., & Spitzberg, B. H. (1995). Romantic jealousy and relational satisfaction: A look at the impact of jealous experience and expression. *Communication Reports*, 8, 77-85. doi:10.1080/08934219509367613
- Attridge, M. (1994). Barriers to dissolution of romantic relationships. In D. J. Canary & L. Stafford (Eds.), *Communication and relational maintenance* (pp. 141-164). San Diego, CA: Academic Press.
- Attridge, M. (1995). *Reactions of romantic partners to geographic separation: A natural experiment* (Unpublished doctoral dissertation). University of Minnesota, Minneapolis.
- Attridge, M. (2009). Barrier forces to relationship dissolution. In H. T. Reis & S. Sprecher (Eds.), *Encyclopedia of human relationships* (Vol. 1, pp. 149-150). Thousand Oaks, CA: SAGE.
- Attridge, M., & Berscheid, E. (1994). Entitlement in romantic relationships in the United States: A social exchange perspective. In M. J. Lerner & G. Mikula (Eds.), *Entitlement and the affectional bond: Justice in close relationships* (pp. 117-148). New York, NY: Plenum.
- Attridge, M., Berscheid, E., & Simpson, J. A. (1995). Predicting relationship stability from both partners versus one. *Journal of Personality and Social Psychology*, 69, 254-268. doi:10.1037/0022-3514.69.2.254
- Barelds, D. P. H., & Barelds-Dijkstra, P. (2007). Relations between different types of jealousy and self and partner perceptions of relationship quality. *Clinical Psychology and Psychotherapy*, 14, 176-188. doi:10.1002/cpp.532
- Barelds, D. P. H., & Dijkstra, P. (2006). Reactive, anxious and possessive forms of jealousy and their relation to relationship quality among heterosexuals and homosexuals. *Journal of Homosexuality*, 51, 183-198.
- Beckes, L. A. (2009). *Discrepancy and evaluation in romantic relationships: Testing the emotion in relationships model* (Unpublished doctoral dissertation). University of Minnesota, Minneapolis.
- Berscheid, E. (1983). Emotion. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, . . . D. R. Peterson (Eds.), *Close relationships* (pp. 110-168). New York, NY: Freeman.
- Berscheid, E. (1991). The emotion in relationships model: Reflections and an update. In W. Kessen & A. Ortony (Eds.), *Memories, thoughts, and emotions: Essays in honor of George Mandler* (pp. 323-335). Hillsdale, NJ: Erlbaum.
- Berscheid, E., & Ammazalorso, H. (2001). Emotional experience in close relationships. In G. J. Fletcher & M. S. Clark (Eds.), *Blackwell handbook of social psychology: Vol. 2. Interpersonal processes* (pp. 308-330). Malden, MA: Blackwell.
- Berscheid, E., & Fei, J. (1977). Romantic love and sexual jealousy. In G. Clanton & L. G. Smith (Eds.), *Jealousy* (pp. 101-114). Englewood Cliffs, NJ: Prentice Hall.
- Berscheid, E., Snyder, M., & Omoto, A. (1989a). Issues in studying close relationships: Conceptualizing and measuring closeness. In C. Hendrick (Ed.), *Close relationships* (pp. 63-91). Newbury Park, CA: SAGE.
- Berscheid, E., Snyder, M., & Omoto, A. (1989b). The Relationship Closeness Inventory: Assessing the closeness of interpersonal relationships. *Journal of Personality and Social Psychology*, 57, 792-807. doi:10.1037/0022-3514.57.5.792
- Berscheid, E., Snyder, M., & Omoto, A. (2004). Measuring closeness: The Relationship Closeness Inventory revisited. In D. J. Mashek & A. Aron (Eds.), *Handbook of closeness and intimacy* (pp. 81-102). Mahwah, NJ: Erlbaum.
- Bevan, J. L. (2008). Experiencing and communicating romantic jealousy: Questioning the investment model. *Southern Communication Journal*, 73, 42-67. doi:10.1080/10417940701815626
- Bevan, J. L., & Samter, W. (2004). Toward a broader conceptualization of jealousy in close relationships: Two exploratory studies. *Communication Studies*, 55, 14-28. doi:10.1080/10510970409388603
- Brewer, G., & Riley, C. (2009). Height, relationship satisfaction, jealousy and mate retention. *Evolutionary Psychology*, 7, 477-489. Retrieved from <http://www.epjournal.net/filestore/ep07477489.pdf>
- Brewer, G., & Riley, C. (2010). Sexual dimorphism in stature (SDS), jealousy and mate retention. *Evolutionary Psychology*, 8, 530-544. Retrieved from <http://www.epjournal.net/filestore/EP08530544.pdf>
- Bringle, R. G. (1981). Conceptualizing jealousy as a disposition. *Alternative Lifestyles*, 4, 274-290. doi:10.1007/BF01257941
- Bringle, R. G. (1991). Psychosocial aspects of jealousy: A transactive model. In P. Salovey (Ed.), *Psychology of jealousy and envy* (pp. 103-131). New York, NY: Guilford.
- Bringle, R. G., Renner, P., Terry, R., & Davis, S. (1983). An analysis of situational and person components of jealousy. *Journal of Research in Personality*, 17, 354-368. doi:10.1016/0092-6566(83)90026-0
- Brown, W. M., & Moore, C. (2003). Fluctuating asymmetry and romantic jealousy. *Evolution & Human Behavior*, 24, 113-117. doi:10.1016/S1090-5138(02)00148-4
- Buss, D. M. (2000). *The dangerous passion: Why jealousy is as necessary as love and sex*. New York, NY: The Free Press.
- Buunk, B. P. (1991). Jealousy in close relationships: An exchange-theoretical perspective. In P. Salovey (Ed.), *The psychology of jealousy and envy* (pp. 148-177). New York, NY: Guilford.
- Buunk, B. P. (1995). Sex, self-esteem, dependency and extradyadic sexual experiences as related to jealousy responses. *Journal of Social and Personal Relationships*, 12, 147-153. doi:10.1177/0265407595121011
- Buunk, B. P. (1997). Personality, birth order and attachment styles as related to various types of jealousy. *Personality and Individual Differences*, 23, 997-1006. doi:10.1016/S0191-8869(97)00136-0
- Buunk, B. P., & Bringle, R. G. (1987). Jealousy in love relationships. In D. Perlman & S. W. Duck (Eds.), *Intimate relationships: Development, dynamics, and deterioration* (pp. 123-147). Newbury Park, CA: SAGE.
- Buunk, B. P., & Dijkstra, P. (2000). Extradyadic relationships and jealousy. In C. Hendrick & S. S. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 317-329). Thousand Oaks, CA: SAGE.

- Buunk, B. P., & Dijkstra, P. (2006). Temptations and threat: Extradynamic relations and jealousy. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships* (pp. 533-555). New York, NY: Cambridge University Press.
- Chiffreller, S. H., & Hennessy, J. J. (2007). Male batterer profiles: Support for an empirically generated typology. *Journal of Offender Rehabilitation*, 44, 117-131. doi:10.1300/J076v44n02_05
- Clarke, J., DeCicco, T. L., & Navara, G. (2010). An investigation among dreams with sexual imagery, romantic jealousy and relationship satisfaction. *International Journal of Dream Research*, 3, 45-50. Retrieved from <http://archiv.ub.uni-heidelberg.de/ojs/index.php/IJoDR/article/view/472>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Davis, K. E., & Latty-Mann, H. (1987). Love styles and relationship quality: A contribution to validation. *Journal of Social Behavior and Personality*, 4, 239-254. doi:10.1177/0265407587044002
- Deiner, E., Emmons, R. A., Larsen, R., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71-74. doi:10.1207/s15327752jpa4901_13
- DeSteno, D., Valdesolo, P., & Bartlett, M. Y. (2006). Jealousy and the threatened self: Getting to the heart of the green-eyed monster. *Journal of Personality and Social Psychology*, 91, 626-641. doi:10.1037/0022-3514.91.4.626
- Dugosh, J. W. (2000). On predicting relationship satisfaction from jealousy: The moderating effects of love. *Current Research in Social Psychology*, 5, 254-263.
- Elphinston, R. A., Feeney, J. A., & Noller, P. (2011). Measuring romantic jealousy: Validation of the Multidimensional Jealousy Scale in Australian samples. *Australian Journal of Psychology*, 63, 243-251. doi:10.1111/j.1742-9536.2011.00026.x
- Gangestad, S. W., & Thornhill, R. (1997). The evolutionary psychology of extrapair sex: The role of fluctuating asymmetry. *Evolution & Human Behavior*, 18, 69-88.
- Ginkel, C. E. (1992). *Abuse and love: The state of romantic relationships in Western culture* (Master's thesis). Retrieved from https://circle.ubc.ca/bitstream/handle/2429/3964/ubc_1995-0558.pdf?sequence=1
- Guerrero, L. K. (1998). Attachment-style differences in the experience and expression of romantic jealousy. *Personal Relationships*, 5, 273-291. doi:10.1111/j.1475-6811.1998.tb00172.x
- Guerrero, L. K., & Eloy, S. V. (1992). Relational satisfaction and jealousy across marital types. *Communication Reports*, 5, 23-31. doi:10.1080/08934219209367540
- Guerrero, L. K., Eloy, S. V., Jorgensen, P. F., & Anderson, P. A. (1993). Hers or his? Sex differences in the experience and communication of jealousy in close relationships. In P. J. Kalbfleisch (Ed.), *Interpersonal communication: Evolving interpersonal relationships* (pp. 109-131). Hillsdale, NJ: Erlbaum.
- Hansen, G. L. (1983). Perceived threats and marital jealousy. *Social Psychology Quarterly*, 48, 363-366.
- Harris, C. R. (2003). A review of sex differences in sexual jealousy, including self-report data, psychophysiological responses, interpersonal violence, and morbid jealousy. *Personality and Social Psychology Bulletin*, 7, 102-128. doi:10.1201/S15327957PSPR0702_102-128
- Harris, C. R. (2005). Male and female jealousy: Still more similar than different: Reply to Sagarin (2005). *Personality and Social Psychological Review*, 9, 76-86. doi:10.1207/s15327957pspr0901_6
- Harris, C. R. (2009). Jealousy. In H. T. Reis & S. Sprecher (Eds.), *Encyclopedia of human relationships* (pp. 937-941). Thousand Oaks, CA: SAGE.
- Harris, C. R., & Darby, R. S. (2010). Jealousy in adulthood. In S. L. Hart & M. Legerstee (Eds.), *Handbook of jealousy: Theory, research, and multidisciplinary approaches* (pp. 547-571). New York, NY: Wiley-Blackwell.
- Hendrick, C., & Hendrick, S. S. (1983). *Liking, loving, and relating*. Monterey, CA: Brooks/Cole.
- Hendrick, C., Hendrick, S. S., Foote, F. H., & Slapion-Foote, M. J. (1984). Do men and women love differently? *Journal of Social and Personal Relationships*, 1, 177-195. doi:10.1177/0265407584012003
- Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family*, 50, 93-98. doi:10.2307/352430
- Hendrick, S. S., & Hendrick, C. (1992). *Romantic love*. Newbury Park, CA: SAGE.
- Howell, D. C. (1982). *Statistical methods for psychology*. Boston, MA: Duxbury.
- Hurlbert, D. F., Apt, C., & Rabehl, S. M. (1993). Key variables to understanding female sexual satisfaction: An examination of women in non-distressed marriages. *Journal of Sex and Marital Therapy*, 19, 154-165. doi:10.1080/00926239308404899
- Kelley, H. H., Berscheid, E., Christensen, A., Harvey, J. H., Huston, T. L., Levinger, G., . . . Peterson, D. R. (Eds.). (1983). *Close relationships*. New York, NY: Freeman.
- Kirk, R. E. (1982). *Experimental design: Procedures for the behavioral sciences* (2nd ed.). Belmont, CA: Brooks/Cole.
- Knoblauch, L. K., Solomon, D. H., & Cruz, M. G. (2001). The role of relationship development and attachment in the experience of romantic jealousy. *Personal Relationships*, 8, 205-224. doi:10.1111/j.1475-6811.2001.tb00036.x
- Knox, D. (1988). *Choices in relationships: An introduction to marriage and the family* (2nd ed.). St. Paul, MN: West.
- Levinger, G. A. (1976). A social psychological perspective on marital dissolution. *Journal of Social Issues*, 3, 21-47. doi:10.1111/j.1540-4560.1976.tb02478.x
- Mathes, E. W. (1986). Jealousy and romantic love: A longitudinal study. *Psychological Reports*, 58, 885-886. doi:10.2466/pr0.1986.58.3.885
- Mathes, E. W., & Severa, N. (1981). Jealousy, romantic love, and liking: Theoretical considerations and preliminary scale development. *Psychological Reports*, 49, 23-31. doi:10.2466/pr0.1981.49.1.23
- McGuirk, E. M., & Pettijohn, T. F. (2008). Birth order and romantic relationship styles and attitudes in college students. *North American Journal of Psychology*, 10, 37-52.
- Mullen, P. E. (1993). The crime of passion and the changing cultural construction of jealousy. *Criminal Behaviour and Mental Health*, 3, 1-11.

- Mullen, P. E. (1995). Jealousy and violence. *Hong Kong Journal of Psychiatry*, 5, 18-24.
- Paul, L., Foss, M. A., & Galloway, J. (1993). Sexual jealousy in young women and men: Aggressive responsiveness to partner and rival. *Aggressive Behavior*, 19, 401-420. doi:10.1002/1098-2337(1993)19:6<401::AID-AB2480190602>3.0.CO;2-S
- Pfeiffer, S. M., & Wong, P. T. (1989). Multidimensional jealousy. *Journal of Social and Personal Relationships*, 6, 181-196. doi:10.1177/026540758900600203
- Pines, A., & Aronson, E. (1983). Antecedents, correlates, and consequences of sexual jealousy. *Journal of Personality*, 51, 108-119. doi:10.1111/j.1467-6494.1983.tb00857.x
- Radecki-Bush, C., Farrell, A. D., & Bush, J. P. (1993). Predicting jealous responses: The influence of adult attachment and depression on threat appraisal. *Journal of Social and Personal Relationships*, 10, 569-588. doi:10.1177/0265407593104006
- Rotenberg, K. J., Shewchuk, V.-A., & Kimberley, T. (2001). Loneliness, sex, romantic jealousy, and powerlessness. *Journal of Social and Personal Relationships*, 18, 55-79. doi:10.1177/0265407501181003
- Russell, D., Peplau, L. A., & Cutrona, C. E. (1980). The revised UCLA loneliness scale: Concurrent and discriminant validity. *Journal of Personality and Social Psychology*, 39, 472-480. doi:10.1037/0022-3514.39.3.472
- Russell, E. B., & Harton, H. C. (2005). The "other factors": Using individual and relationship characteristics to predict sexual and emotional jealousy. *Current Psychology*, 24, 242-257. doi:10.1007/s12144-005-1026-5
- Rydell, R. J., & Bringle, R. G. (2007). Differentiating reactive and suspicious jealousy. *Social Behavior and Personality: An International Journal*, 35, 1099-1114. doi:10.2224/sbp.2007.35.8.1099
- Salovey P. (Ed.). (1991). *Psychology of jealousy and envy*. New York, NY: Guilford.
- Salovey, P., & Rodin, J. (1985). The heart of jealousy. *Psychology Today*, 19, 22-25, 28-29.
- Salovey, P., & Rodin, J. (1989). Envy and jealousy in close relationships. In C. Hendrick (Ed.), *Close relationships* (pp. 221-246). Newbury Park, CA: SAGE.
- 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. doi:10.1037/0022-3514.80.6.894
- Sharpsteen, D. J. (1991). The organization of jealousy knowledge: Romantic jealousy as a blended emotion. In P. Salovey (Ed.), *The psychology of jealousy and envy* (pp. 31-51). New York, NY: Guilford.
- Sharpsteen, D. J. (1993). Romantic jealousy as an emotion concept: A prototype analysis. *Journal of Social and Personal Relationships*, 10, 69-82. doi:10.1037/0022-3514.72.3.627
- Sharpsteen, D. J., & Kirkpatrick, L. A. (1997). Romantic jealousy and adult romantic attachment. *Journal of Personality and Social Psychology*, 72, 627-640. doi:10.1037/0022-3514.72.3.627
- Simpson, J. A. (1987). The dissolution of romantic relationships: Factors involved in relationship stability and emotional distress. *Journal of Personality and Social Psychology*, 53, 683-692. doi:10.1037/0022-3514.53.4.683
- Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, 59, 971-980. doi:10.1037/0022-3514.59.5.971
- Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology*, 62, 434-446. doi:10.1037/0022-3514.62.3.434
- Southard, A. C. (2010). *Sex differences in narcissism: Expression of and relationships with the exploitativeness/entitlement factor* (Unpublished doctoral dissertation). Retrieved from <http://libres.uncg.edu/ir/wcu/f/Southard2010.pdf>
- Sprecher, S., & Metts, S. (1989). Development of the "Romantic Beliefs Scale" and examination of the effects of gender and gender-role orientation. *Journal of Social and Personal Relationships*, 6, 387-411. doi:10.1177/0265407589064001
- Stieger, S., Preys, A. V., & Voracek, M. (2012). Romantic jealousy and implicit and explicit self-esteem. *Personality and Individual Differences*, 52, 51-55. doi:10.1016/j.paid.2011.08.028
- Tarrier, N., Beckett, R., Harwood, S., & Ahmed, Y. (1989). Comparison of a morbidly jealous and a normal female population on the Eysenck Personality Questionnaire. *Personality and Individual Differences*, 10, 1327-1328. doi:10.1016/0191-8869(89)90247-X
- Teranishi, C. (2006). *Violence on the border—Too close to home: Prevalence of proprietariness, jealousy, and aggression in Latino/a intimate partner relationships* (Unpublished report). Texas A&M International University. Retrieved from http://texascenr.tamui.edu/pdf_br/v7/v7-Teranishi.pdf
- Thomas, R. K., Miller, T. M., & Warner, S. (1988, April). *The effects of personality and relationship variables on romantic jealousy*. Paper presented at the Midwestern Psychological Association annual convention, Chicago, IL.
- Wade, T. J., Kelley, R., & Church, D. (2012). Are there sex differences in reaction to different types of sexual infidelity? *Psychology*, 3, 161-164. doi:10.4236/psych.2012.32024
- White, G. L. (1981). A model of romantic jealousy. *Motivation and Emotion*, 5, 295-301. doi:10.1007/BF00992549
- White, G. L. (1984). Comparison of four jealousy scales. *Journal of Research in Personality*, 18, 115-130. doi:10.1016/0092-6566(84)90024-2
- White, G. L., & Mullen, P. E. (1989). *Jealousy: Theory, research, and clinical strategies*. New York, NY: Guilford.
- Wilson, M. I., & Daly, M. (1996). Male sexual proprietariness and violence against wives. *Current Directions in Psychological Science*, 5, 2-7. doi:10.1111/1467-8721.ep10772668

Bio

Mark Attridge is a research scholar in independent practice and president of his own consulting firm. His research interests include close relationships, communication, employee assistance programs, and other workplace mental health and addiction services.

Relationship Assessment Scale

PsycTESTS Citation:

Hendrick, S. S., Dicke, A., & Hendrick, C. (N.D.). Relationship Assessment Scale [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t00437-000>

Instrument Type:

Rating Scale

Test Format:

The RAS includes 7 items rated on a 5-point response scale ranging from 1 (low satisfaction) to 5 (high satisfaction).

Source:

Supplied by author.

Original Publication:

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RELATIONSHIP ASSESSMENT SCALE

Please mark on the answer sheet the letter for each item which best answers that item for you.

How well does your partner meet your needs?

A	B	C	D	E
Poorly		Average		Extremely well

In general, how satisfied are you with your relationship?

A	B	C	D	E
Unsatisfied		Average		Extremely satisfied

How good is your relationship compared to most?

A	B	C	D	E
Poor		Average		Excellent

How often do you wish you hadn't gotten in this relationship?

A	B	C	D	E
Never		Average		Very often

To what extent has your relationship met your original expectations:

A	B	C	D	E
Hardly at all		Average		Completely

How much do you love your partner?

A	B	C	D	E
Not much		Average		Very much

How many problems are there in your relationship?

A	B	C	D	E
Very few		Average		Very many

NOTE: Items 4 and 7 are reverse scored. A=1, B=2, C=3, D=4, E=5. You add up the items and divide by 7 to get a mean score.

SCALE FOR SOCIAL COMPARISON ORIENTATION (INCOM, Iowa-Netherlands Comparison Orientation Scale)
English version

Primary references:

Gibbons, F.X. & Buunk, B.P. (1999). Individual differences in social comparison: The development of a scale of social comparison orientation. *Journal of Personality and Social Psychology*, 76, 129-142.

Buunk, B.P., Belmonte, J., Peiró, J.M., Zurriaga, R., & Gibbons, F.X. (2005). Diferencias individuales en la comparación social: Propiedades de la escala española de orientación hacia la comparación social. *Revista Latinoamericana de Psicología*, 37, 561-581.

Buunk, A.P., & Gibbons, F.X. (2006). Social comparison orientation: a new perspective on those who do and those who don't compare with others. In Guimond, S. (Ed.) *Social Comparison and Social Psychology: Understanding cognition, intergroup relations and culture* (pp. 15-33). Cambridge: Cambridge University Press.

Response scale for all items:

1. I disagree strongly
2. I disagree
3. I neither agree nor disagree
4. I agree
5. I agree strongly

Recode: items 6 en 10

Short version: items 1, 3, 4, 6, 7, 11

Most people compare themselves from time to time with others. For example, they may compare the way they feel, their opinions, their abilities, and/or their situation with those of other people. There is nothing particularly 'good' or 'bad' about this type of comparison, and some people do it more than others. We would like to find out how often you compare yourself with other people. To do that we would like to ask you to indicate how much you agree with each statement below.

1. I often compare myself with others with respect to what I have accomplished in life
2. If I want to learn more about something, I try to find out what others think about it
3. I always pay a lot of attention to how I do things compared with how others do things
4. I often compare how my loved ones (boy or girlfriend, family members, etc.) are doing with how others are doing
5. I always like to know what others in a similar situation would do

6. I am not the type of person who compares often with others
7. If I want to find out how well I have done something, I compare what I have done with how others have done
8. I often try to find out what others think who face similar problems as I face
9. I often like to talk with others about mutual opinions and experiences
10. I never consider my situation in life relative to that of other people
11. I often compare how I am doing socially (e.g., social skills, popularity) with other people

Participants will be shown this study description with the eligibility criteria in MTurk before selecting to participate in the study:

This is a survey about relationships that is expected to take approximately 20 minutes to complete. You will be paid \$1.00 for completing the survey. In the survey, you will complete several psychological measures, such as measures about your current relationship and personality questionnaires. To participate you must: A) currently be in a romantic relationship; *and* B) have been in your current relationship for at least 6 months. If you do not meet this criteria, you are not eligible to participate.